



**U.S. Army  
Corps of Engineers**

New England District  
Concord, Massachusetts



**U.S. Environmental  
Protection Agency**

New England Region  
Boston, Massachusetts

---

# **General Electric (GE)/Housatonic River Project Pittsfield, Massachusetts**

Contract No. DACW33-00-D-0006  
Task Order 0002

**DRAFT FINAL**

## **COMMUNITY RELATIONS PLAN**

DCN: GE-031402-AAXP

April 2002

**DRAFT FINAL**

**COMMUNITY RELATIONS PLAN  
GENERAL ELECTRIC (GE)/HOUSATONIC RIVER PROJECT  
PITTSFIELD, MASSACHUSETTS**

Contract No. DACW33-00-D-0006, Task Order No. 0002  
DCN: GE-031402-AAXP

Prepared for

**U.S. ARMY CORPS OF ENGINEERS**

**and**

**U.S. ENVIRONMENTAL PROTECTION AGENCY, NEW ENGLAND**

Prepared by

**ROY F. WESTON, INC.**  
West Chester, Pennsylvania 19380-1499

---

**Lee dePersia, Project Manager**

---

**Date**

---

**Ellen Losano-Ramsey, Community Relations Lead**

---

**Date**

---

**Chris Moran, QA Representative**

---

**Date**

April 2002

W.O. No. 20122.246.001.0230

**For More Information:**

**Community Involvement Coordinator**

Angela Bonarrigo  
U.S. Environmental Protection Agency  
One Congress Street, Suite 1100 (RAA)  
Boston, MA 02114-2023

Phone: (617) 918-1034

Fax: (617) 918-1029

**EPA Web Site:** <http://www.epa.gov/ne/ge/>

# TABLE OF CONTENTS

Section	Page
<b>1. OVERVIEW OF THE COMMUNITY RELATIONS PLAN.....</b>	<b>1-1</b>
1.1 BACKGROUND AND OBJECTIVES.....	1-1
1.2 ORGANIZATION OF THE COMMUNITY RELATIONS PLAN .....	1-2
<b>2. SITE BACKGROUND .....</b>	<b>2-1</b>
2.1 SITE LOCATION AND DESCRIPTION.....	2-1
2.2 SITE HISTORY .....	2-2
2.3 SITE ENVIRONMENTAL HISTORY .....	2-2
2.3.1 Overview of Site History .....	2-2
2.3.2 PCB Contamination Information.....	2-3
2.3.3 Study Area Designations .....	2-5
2.3.4 Environmental Overview of Current Study Areas .....	2-7
2.3.4.1 GE Plant Area .....	2-7
2.3.4.2 Housatonic River Study Area .....	2-13
2.3.4.3 Allendale School Soils .....	2-15
2.3.4.4 Silver Lake.....	2-16
2.3.4.5 Former Oxbow Areas .....	2-17
2.3.4.6 Groundwater Management Plan.....	2-20
2.3.4.7 Housatonic River Floodplain .....	2-21
2.4 AGENCY/REGULATORY ACTIVITIES.....	2-22
2.4.1 Administrative Consent Order and Resource Conservation and Recovery Act.....	2-22
2.4.2 EPA and MDEP Activities – 1997 to Present.....	2-23
2.4.2.1 National Priorities List .....	2-23
2.4.2.2 Negotiations.....	2-23
2.4.2.3 EPA and MDEP Residential Efforts .....	2-27
2.4.2.4 Removal Actions .....	2-29
<b>3. COMMUNITY BACKGROUND.....</b>	<b>3-1</b>
3.1 GOVERNMENT.....	3-2
3.2 SITE NEIGHBORHOOD.....	3-3
3.3 CHRONOLOGY OF PUBLIC INVOLVEMENT .....	3-3
3.4 PUBLIC HEALTH.....	3-8
3.5 ENVIRONMENTAL AND BUSINESS CONCERNS: GE’S IMPACT ON THE PITTSFIELD AREA .....	3-10

## TABLE OF CONTENTS

<b>Section</b>	<b>Page</b>
3.6 TRUST AND COMMUNICATION.....	3-10
3.7 SUMMARY OF COMMUNITY INTERVIEWS .....	3-11
3.7.1 Description of Community Interviews .....	3-11
3.7.2 Overview of Key Community Concerns .....	3-12
3.7.2.1 Health .....	3-12
3.7.2.2 Allendale Elementary School .....	3-13
3.7.2.3 General Electric Company .....	3-13
3.7.2.4 Concerns for the Environment.....	3-15
3.7.2.5 City of Pittsfield.....	3-15
3.7.2.6 Residential and Commercial Contamination/Depressed Real Estate Values .....	3-16
3.7.2.7 Superfund Designation .....	3-18
3.7.2.8 Government Relations with the Public.....	3-19
3.7.2.9 Most Effective Methods of Communication .....	3-21
3.8 CONCLUSION AND KEY ELEMENTS OF COMMUNITY INVOLVEMENT AT THE SITE.....	3-23
3.8.1 Provide the Community with Information about the Site.....	3-23
3.8.2 Educate the Community about the Investigation and Cleanup Process .....	3-24
3.8.3 Maintain a Communication Link with Residents and Officials...	3-24
3.8.4 Evaluate the Effectiveness of the Community Involvement Program.....	3-24
<b>4. COMMUNITY INVOLVEMENT TECHNIQUES.....</b>	<b>4-1</b>
4.1 FORMATION OF A CITIZENS COORDINATING COUNCIL .....	4-1
4.1.1 Purposes and Operating Guidelines for the Citizens Coordinating Council.....	4-2
4.1.2 Council Membership .....	4-3
4.1.3 Facilitating Council Meetings.....	4-3
4.1.4 Connecticut Subcommittee Mission Statement and Operating Guidelines .....	4-4
4.1.5 Summary of Citizens Coordinating Council Meetings .....	4-5
4.2 ADMINISTRATIVE RECORD .....	4-9
4.3 COMMUNITY INTERVIEWS .....	4-10
4.4 INFORMATION REPOSITORIES .....	4-10
4.5 PUBLIC COMMENT PERIODS.....	4-11
4.6 MAILING AND DISTRIBUTION LISTS .....	4-11
4.7 PUBLIC MEETINGS.....	4-11

## TABLE OF CONTENTS

<b>Section</b>	<b>Page</b>
4.8 PUBLIC HEARING TRANSCRIPT .....	4-12
4.9 MEETINGS WITH LOCAL OFFICIALS AND RESIDENTS .....	4-12
4.10 TECHNICAL ASSISTANCE GRANTS.....	4-12
4.11 FACT SHEETS .....	4-12
4.12 PRESS RELEASES .....	4-13
4.13 EPA WEB SITE .....	4-13
4.14 TELEPHONE HOTLINE.....	4-14
4.15 REVISED COMMUNITY RELATIONS PLAN.....	4-14
4.16 PROGRAM EVALUATION .....	4-14
<b>5. BIBLIOGRAPHY.....</b>	<b>5-1</b>

**ATTACHMENTS**

**ATTACHMENT A – CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

**ATTACHMENT B – GLOSSARY**

**ATTACHMENT C – LOCATIONS OF INFORMATION REPOSITORIES AND LOCATIONS FOR PUBLIC MEETINGS**

**ATTACHMENT D – LIST OF SELECTED NEWSPAPER ARTICLES**

Summary of Selected Newspaper Articles

Selected Newspaper Articles

**ATTACHMENT E – TECHNICAL ASSISTANCE GRANT INFORMATION**

Technical Assistance Grant Information from EPA

Technical Assistance Grant (TAG) Guidance and

Application Package – MDEP

**ATTACHMENT F – EPA’S COMMUNITY RELATIONS COMPONENTS/ GUIDANCE**

Community Relations Guidance for Superfund Sites

Public Participation Guidance for RCRA Sites

**ATTACHMENT G – EPA SUMMARY OF AGREEMENT: GENERAL ELECTRIC/PITTSFIELD-HOUSATONIC RIVER SITE**

**ATTACHMENT H – SELECTED EPA, MDEP, AND DPH FACT SHEETS**

**ATTACHMENT I – PROJECT CHRONOLOGY**

## LIST OF FIGURES

<b>Title</b>	<b>Page</b>
Figure 2-1 Removal Action Areas .....	2-33
Figure 2-2 Site Location and Former Study Area Designations .....	2-34
Figure 2-3 Housatonic River .....	2-35
Figure 2-4 Housatonic River Floodplain Properties Under Investigation .....	2-36
Figure 2-5 Groundwater Management Areas .....	2-37
Figure 3-1 Significant Milestones: GE Housatonic River Site .....	3-25

## LIST OF EXHIBITS

<b>Title</b>	<b>Page</b>
Exhibit 4-1 GE/Housatonic River Web Site .....	4-15

## LIST OF TABLES

<b>Title</b>	<b>Page</b>
Table 2-1 Former Site Study Area Designations .....	2-5

# LIST OF ACRONYMS

ACO	Administrative Consent Order
ATSDR	Agency for Toxic Substances and Disease Registry
BCRPC	Berkshire County Regional Planning Commission
BNRC	Berkshire Natural Resources Council
CCC	Citizens Coordinating Council
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CTDEP	Connecticut Department of Environmental Protection
DEQE	Massachusetts Department of Environmental Quality Engineering
DNAPL	dense nonaqueous phase liquid
EE/CA	Engineering Evaluation/Cost Analysis
EPA	U.S. Environmental Protection Agency
EREs	Environmental Restrictions and Easements
GE	General Electric Company
GetREAL	Residents Environmental Action League
GIS	geographic information system
GMAs	Groundwater Management Areas
HEAL	Housatonic Environmental Action League
HRI	Housatonic River Initiative
HRR	Housatonic River Restoration, Inc.
HRWA	Housatonic River Watershed Association
HSWA	Hazardous and Solid Waste Amendments of 1984
HVA	Housatonic Valley Association
IRA	Immediate Response Action
LNAPL	light nonaqueous phase liquid
MDEP	Massachusetts Department of Environmental Protection
MCP	Massachusetts Contingency Plan
MDPH	Massachusetts Department of Public Health
MODR	Massachusetts Office of Dispute Resolution
MOU	Memorandum of Understanding
NAPL	nonaqueous phase liquid
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System



## LIST OF ACRONYMS

NPL	National Priorities List
NRD	Natural Resource Damage
OPCAs	On-Plant Consolidation Areas
PAHs	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyl
PCDD	polychlorinated dibenzodioxin
PCDF	polychlorinated dibenzofuran
PCE	tetrachloroethylene
PEDA	Pittsfield Economic Development Authority
ppb	parts per billion
ppm	parts per million
PRP	potentially responsible party
RAAs	Removal Action Areas
RAO	Response Action Outcome
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RI/FS	remedial investigation/feasibility study
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
STM	Short Term Measure
SVOCs	semivolatile organic compounds
TAG	Technical Assistance Grant
TCE	trichloroethylene
TCLP	Toxicity Characteristic Leaching Procedure
TSCA	Toxic Substances Control Act
U.S. DOI	U.S. Department of the Interior
U.S. DOJ	U.S. Department of Justice
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey
VOCs	volatile organic compounds

# 1. OVERVIEW OF THE COMMUNITY RELATIONS PLAN

## 1.1 BACKGROUND AND OBJECTIVES

The United States Environmental Protection Agency (EPA), New England Region, through coordination with the U.S. Army Corps of Engineers (USACE) and the Massachusetts Department of Environment Protection (MDEP), has prepared this Community Relations Plan. The Community Relations Plan describes the various programs to communicate the status of environmental activities concerning the General Electric Company (GE)/ Housatonic River Project to the local communities and to obtain feedback from the citizens about issues and concerns.

The primary goal of the community relations activities is to inform and to promote two-way communication among regulatory agencies, neighborhood residents, environmentalists, elected officials, business people, and other citizens throughout the Housatonic River corridor from Pittsfield, MA, to Danbury, CT. In addition, the Community Relations Plan prepares the public for participating in the process of reviewing and making recommendations about the environmental studies and activities associated with the GE/Housatonic River Project (the study areas included in this project are described in Subsection 2.1).

Specific objectives of the Community Relations Plan are to:

1. Provide for the exchange of information regarding the environmental studies and activities concerning the GE/Housatonic River Project.
2. Solicit input, comments, and active involvement from the public, elected and civic leaders, and concerned agencies regarding the environmental program and to provide a means whereby citizens and agencies can interact and resolve issues of public interest and concern.
3. Provide a centralized point of contact for public agencies to express concerns and provide suggestions for developing an effective communications network about environmental matters concerning the GE/Housatonic River Project.

This Community Relations Plan outlines the public involvement objectives, presents specific policies and procedures governing public involvement activities related to environmental and remedial actions, assigns responsibilities for planning and implementing community relations program functions, and presents suggested communication activities and techniques to be used in meeting community relations

**OVERVIEW OF THE COMMUNITY RELATIONS PLAN**

program goals. This Community Relations Plan was developed using EPA's *Community Relations in Superfund: A Handbook* (January 1992).

MDEP prepared the original *Public Involvement Plan* in 1990. MDEP provided the public an opportunity to comment on the draft plan and revised the plan accordingly. In April 1995, MDEP finalized a revised plan, *Revised Public Involvement Plan for the Housatonic River and the General Electric Company Pittsfield Disposal Sites*. The 1995 plan summarized the facility's history, remedial planning process, histories of the various sites, and public involvement activities.

This Community Relations Plan updates the information in the 1995 revised plan regarding the environmental studies and remediation and provides mechanisms for the distribution of information and avenues for soliciting, receiving, and responding to public comments and questions. This Community Relations Plan presents the issues and concerns voiced by local residents during community interviews conducted by EPA in July and August 1997. The Community Relations Plan presents information about GE/Housatonic River site environmental studies and community involvement activities through August 1, 2001.

**1.2 ORGANIZATION OF THE COMMUNITY RELATIONS PLAN**

The Community Relations Plan is organized in the following manner:

- The Table of Contents includes a list of acronyms as well as a listing of the other sections of the document.
- Section 1, Overview of the Community Relations Plan, provides a summary of the objectives and contents of the plan.
- Section 2, Site Background, presents the site history and background information about environmental activities at the GE facility and in the area of the Housatonic River.
- Section 3, Community Background, provides information about the local area, describes community involvement activities, and presents community issues and concerns.
- Section 4, Community Involvement Techniques, presents specific information about community relations activities.

The Community Relations Plan also includes the following attachments:

Attachment A Contacts, Interested Parties, and Media List

Attachment B Glossary

---

**OVERVIEW OF THE COMMUNITY RELATIONS PLAN**

- Attachment C Locations of Information Repositories and Locations for Public Meetings
- Attachment D List of Selected Newspaper Articles
- Attachment E Technical Assistance Grant Information
- Attachment F EPA's Community Relations Components/Guidance
- Attachment G EPA Summary of Agreement:  
General Electric/Pittsfield-Housatonic River Site
- Attachment H Selected EPA, MDEP, and DPH Fact Sheets
- Attachment I Project Chronology

## 2. SITE BACKGROUND

### 2.1 SITE LOCATION AND DESCRIPTION

The GE Plant Area, which includes both the GE facility and adjacent non-GE properties as defined in the Consent Decree (and shown in Figure 2-1), is comprised of approximately 360 acres. (Figures are presented at the end of this section.) The GE facility occupies 254 acres of the 360-acre Plant Area, and it is estimated that five million square feet of buildings occupy the GE facility.

The GE Plant Area is located along East Street and Merrill Road just east of downtown Pittsfield. Tyler Street and Dalton Avenue border the facility to the north and Merrill Road to the south and east. The CSX Corporation railroad tracks bisect the facility. Silver Lake borders the southwestern side of the facility. The East Branch of the Housatonic River borders the facility to the south and east, and Unkamet Brook, a tributary to the Housatonic River, flows through the eastern portion of the facility.

The facility property generally slopes toward the Housatonic River and Unkamet Brook. Groundwater in the vicinity of the site flows predominantly downslope toward the Housatonic River.

Land use surrounding the facility is a mixture of heavy and light industrial, commercial, and residential. Residents in the area surrounding the GE facility are served by the municipal water supply. Pittsfield's water sources are the Ashley and Sandwash Reservoirs in Washington, Massachusetts, and the Cleveland Reservoir in Hinsdale, Massachusetts.

The GE/Housatonic River Project Site includes the following areas:

- GE Plant Area.
- Former Oxbow Areas.
- Allendale School Property.
- Housatonic River Sediments and Riverbanks.
- Housatonic River Floodplain.
- Silver Lake.
- Groundwater.

**SITE BACKGROUND**

- Other residential and commercial properties or areas that have become contaminated as a result of operations at the GE facility or the use of fill from the GE facility.

The hazardous substances associated with the site include polychlorinated biphenyls (PCBs), dioxins, furans, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and inorganic constituents (e.g., metals).

**2.2 SITE HISTORY**

In 1903, GE purchased the majority of the facility's property from Stanley Electric Company, the previous owner since 1890. During the 97 years of operation, this GE facility produced plastics and military-related equipment and manufactured transformers and other electrical components. In 1972, GE purchased acreage owned by the Berkshire Gas Company, which operated a former coal gasification plant from 1903 to 1953. Prior to 1972, releases of hazardous wastes from the coal gasification operations occurred on the property that is south of the railroad tracks and that is now owned by GE. GE continued to purchase adjacent properties either for expansion of facility operations or to obtain control of properties where soil or groundwater contamination, related to GE operations, had been detected.

Industrial processes throughout most of the GE plant occurred within three major divisions: Ordnance, Plastics, and Transformer. The Ordnance Division began operations in 1941 in support of the U.S. Armed Forces. Ordnance operations included developing submarine-launched ballistic-missile guidance systems, armored-vehicle transmissions, and shipboard fire-control systems. In April 1993, Martin Marietta purchased the GE Ordnance Division. The Plastics Division developed and piloted activities in engineering plastics, beginning with operations during World War II to manufacture boat molding and other plastic products for the war. This division continues to operate today. From 1903 to the 1977, the Transformer Division manufactured and serviced transformers and other electrical products. The ordnance operations at the site currently are being conducted for the U.S. Navy by General Dynamics Corporation.

**2.3 SITE ENVIRONMENTAL HISTORY****2.3.1 Overview of Site History**

GE used PCBs for over 40 years in the manufacture of transformers and associated products beginning in 1932 and ending in 1977. PCBs manufactured by Monsanto under the trade name of Aroclor were used by GE as an ingredient in Pyranol™, a high-grade synthetic, fire-resistant

## SITE BACKGROUND

transformer fluid. Pyranol™ was used to insulate about 3% of the transformers manufactured by the GE Pittsfield facility. Pyranol™ contained approximately 45 to 60% PCBs. The bulk (97%) of the transformers were filled with a mineral oil dielectric fluid, which was petroleum based.

From the late 1930s to the 1970s, hundreds of thousands of gallons of transformer oil contaminated with PCBs were released to soil, groundwater, and surface water in the area of the Transformer Division Plant. Large quantities of PCBs from industrial process water, stormwater, and groundwater discharges reached the Housatonic River. Following accepted practices of the time period, PCBs were used and disposed of within and around the facility in landfills, the former oxbows, and other locations. GE commonly provided fill material from the plant area for a variety of projects from the 1940s to the 1970s, including the filling of the former oxbows and local residential and commercial properties. Subsequently, PCBs were discovered in the fill materials provided by GE.

Coal tar oils and solid waste from the former Berkshire Gas facility containing polycyclic aromatic hydrocarbons (PAHs) were found at East Street Area II site and within and along the banks of former Oxbow H.

The extensive nature of the GE transformer oil leaks was first discovered in 1952 at the East Street Area 1 site, where transformer oil was detected in the basement of a residential property on East Street. In response to this discovery, GE began conducting environmental investigations and oil collection operations in the mid-1950s at the East Street Area 1 site (Figure 2-1).

Additional investigations and corrective actions targeted at transformer oil leaks were implemented starting in the early 1960s at a second site, East Street Area 2 (Figure 2-1). GE has conducted a continuing series of environmental investigations and remedial actions at both East Street Area sites up until the present time. Many of these investigations and remedial actions were related to EPA and MDEP regulatory requirements, which were initiated in the early 1980s.

### 2.3.2 PCB Contamination Information

PCBs are a family of chlorinated organic compounds that possess the following properties: thermal (heat) stability, resistance to chemicals (acids and bases), and excellent electrical insulation characteristics. PCBs do not readily mix with water. Currently, more than 200 individual PCB compounds (congeners) are known. Commercially, PCBs were available as mixtures of various individual compounds (e.g., Aroclor 1260).

## SITE BACKGROUND

Monsanto Corp. was the U.S. manufacturer of these PCB mixtures, which were sold under the trade name of Aroclor.

PCB mixtures have been used in the manufacturing of lubricants, carbonless paper, adhesives, specialized paints, and caulking compounds. Since PCBs are chemically stable, nonflammable, nonexplosive, and possess electrical insulation characteristics, they were widely used in transformers and capacitors, hydraulic and heat transfer equipment, compressors and vacuum pumps, and as plasticizers (surface coatings and sealants). Although the domestic manufacture of PCB mixtures was stopped in 1977, existing electrical components containing PCBs continue in use, and as a result, PCBs can still enter the environment through improper disposal practices.

PCBs are stable in the environment (i.e., they are only slowly degraded). When PCBs enter the environment, they may migrate and degrade at different rates. PCBs with low chlorine content tend to be more volatile, escaping to the atmosphere and degrading more readily. Those with higher chlorine content tend to adhere to soil and sediment particles and are more resistant to degradation.

Humans may be exposed to PCBs in the environment through ingestion (soil, food), inhalation (air), and dermal contact (skin absorption from touching PCB-contaminated material). Because PCBs are highly persistent in the environment, and very fat soluble, they tend to concentrate in the fat of animals and humans once they are absorbed. In addition, they are not readily degraded once in the body. As a result, PCB contamination in sediments magnifies as it passes up through the food chain. PCB-contaminated insects and small aquatic animals are eaten by fish, which are ingested by birds and larger animals, and they in turn may be consumed by humans; therefore, PCB concentrations progressively increase in the tissues of animals higher up in the food chain. When tested, most humans show traces of PCBs in their blood and fatty tissues as a result of their exposure through consumption of game fish, game animals, or animal products contaminated through the food chain. PCBs may also be passed through breast milk to nursing infants. EPA considers PCBs to be probable carcinogens.

In October 1976, Congress passed the Toxic Substances Control Act (TSCA) and specifically directed EPA to regulate PCBs. This was the only chemical substance specifically named in TSCA because Congress believed that its chemical and toxicological properties and its widespread use posed significant risks to public health and the environment.

EPA issued regulations for the proper disposal of PCBs and their manufacture, distribution, and use in other than a totally enclosed manner. On February 17, 1978, EPA announced the PCBs Marking and Disposal Rule, establishing specific requirements for the identification



## SITE BACKGROUND

and disposal of PCBs according to the nature and concentration of the PCBs in question. On May 31, 1979, EPA issued regulations prohibiting and restricting continued use of PCBs.

### 2.3.3 Study Area Designations

During the course of environmental studies at the GE/Housatonic River Site, various study area designations have been used. The original study area designations were replaced by a new set of study area designations in the 1999 Consent Decree; however, the former designations are necessary when researching the history of the site. Table 2-1 summarizes the study area designations, and the locations of the study areas are shown on Figure 2-2.

**Table 2-1**

#### Former Site Study Area Designations

Operable Unit Designation	MDEP Designation	EPA New England Resource Conservation and Recovery Act (RCRA) Designation
OU 1	Unkamet Brook Area	EPA Area 1
	Hill 78 Area	EPA Area 2
	East Street Area I	EPA Area 3
	East Street Area II (Building 68 and Former Oxbow H)	EPA Area 4
	Lyman Street Parking Lot (Former Oxbows D and E)	EPA Area 5A
OU 2	Housatonic River	EPA Area 6
OU 3	Allendale School	Out of EPA New England RCRA jurisdiction
OU 4	Silver Lake	EPA Area 6
OU 5	Newell Street Parking Lot (Former Oxbows F and G)	EPA Area 5B
	Newell Street Area I (Former Oxbow I)	Out of EPA New England RCRA jurisdiction
OU 6	Former Oxbows A, B, C, J, K	Out of EPA New England RCRA jurisdiction

On October 7, 1999, a Consent Decree was signed between GE and representatives of EPA, MDEP, and other government agencies and groups. On October 27, 2000, the court entered the Consent Decree. The Consent Decree lists the following specific areas for cleanup:

- GE Plant Area:
  - 40s Building Complex.
  - 30s Building Complex.
  - 20s Building Complex.

## SITE BACKGROUND

- East Street Area 2 South.
- East Street Area 2 North.
- East Street Area 1 North.
- Hill 78 On-Plant Consolidation Area.
- Building 71 On-Plant Consolidation Area.
- Hill 78 Area - Remainder.
- Unkamet Brook Area.
  
- Former Oxbow Areas:
  - Former Oxbow Areas A and C.
  - Lyman Street Area.
  - Newell Street Area I.
  - Newell Street Area II.
  - Former Oxbows J and K.
  
- Allendale School.
  
- Housatonic River Floodplain:
  - Residential and nonresidential floodplain properties adjacent to 1½-Mile Reach.
  - Residential floodplain properties downstream of 2-Mile Reach (confluence) of Housatonic River with actual/potential lawn areas.
  
- Silver Lake.
  
- Groundwater Management Areas (GMAs) 1 to 5.
  
- Housatonic River:
  - Housatonic River sediments and riverbanks -Upper ½-Mile Reach from Newell Street to Lyman Street.
  - Housatonic River sediments and riverbanks -Next 1 ½-Mile Reach from the Lyman Street Bridge to the Confluence of the East and West Branches.
  - Housatonic River sediments and riverbanks - Downstream from the Confluence of the East and West Branches.

Figure 2-1 shows the GE Plant Area sites, the former oxbow areas, Allendale School, and Silver Lake. Figure 2-3 presents a map of the Housatonic River, and Figure 2-4 shows the Housatonic River floodplain properties under investigation.

Brief overviews of each current study area for the GE/Housatonic River Site are presented in the following subsections.

## 2.3.4 Environmental Overview of Current Study Areas

### 2.3.4.1 GE Plant Area

As described in the Consent Decree, the GE Plant Area has been divided into 10 Removal Action Areas (RAAs) based on geographic location, regulatory status, similar land use, and several other considerations (Figure 2-1). These RAAs are designated for soil-related remedial actions. Groundwater and oil related actions will be handled separately under more extensive Groundwater Management Areas (GMAs).

#### 40s Building Complex

This area, which is approximately 9 acres, is located within the western portion of GE's Pittsfield facility and is bounded by Kellogg Street to the north, the CSX railroad lines to the south, other portions of the GE facility to the east, and non-GE owned commercial/industrial areas to the west. Currently, Buildings 42, 43, 43-A, and 44 constitute nearly one-half of this area (eastern portion), whereas the remainder is mostly paved (asphalt/concrete). Previously, Buildings 40-B, 41, and 41-A constituted much of the western portion of this area; these buildings were demolished in the early 1990s, although the subgrade portions of these buildings remain within this area. This area of the facility is a component of the redevelopment agreement between GE and the City of Pittsfield. All of the existing buildings are scheduled for demolition.

Various industrial operations were housed in the 40s Building Complex, including machine shops, laboratories, paint shops, vapor degreasing operations, and acid and alkali metals treatments. Process water from these operations and stormwater from the 40s Complex discharged into Silver Lake.

#### 30s Building Complex

This approximately 20-acre area is located south of the 40s Complex, and is generally bounded by Silver Lake Boulevard to the west, East Street to the south, and other areas of the GE facility to the south and east. This area includes asphalt/concrete areas, some unpaved areas, and several existing buildings. This area of the facility is a component of the redevelopment agreement between GE and the City of Pittsfield. Most of the existing buildings are scheduled for demolition.

**SITE BACKGROUND**

A power and steam generation plant, aboveground oil storage tanks, and various industrial operations were located in the 30s Building Complex, including paint shops, vapor and cold solvent degreasing operations, a mercury boiler, and metal pretreatment operations. Historically, process water from these operations and stormwater from the 30s Complex discharged into Silver Lake.

**20s Building Complex**

This area, which is approximately 15 acres, is located immediately east of the 30s Complex within the western portion of the GE facility, and is bounded by East Street to the south and other areas of the GE facility to the north and east. The existing asphalt parking areas predominantly characterize current conditions within this area. Previously, these areas were associated with most of the 20s Complex buildings that were razed in the late 1980s. At this time, two buildings remain in this area. This area of the facility is a component of the redevelopment agreement between GE and the City of Pittsfield. All of the existing buildings are scheduled for demolition.

Formerly, GE Transformer Division operations were conducted in the 20s Building Complex, which included the Southside Tank Farm where transformer oils were stored. Berkshire Gas also conducted coal gasification operations in the eastern portion of the 20s Complex. Other GE operations historically located in the 20s Complex include paint spraying, vapor degreasing, and metals treatments using acids and phosphatizing solutions.

The largest transformer oil plume at the GE facility extends underneath the 20s Complex from its origin north of the railroad tracks in the central portion of the East Street Area 2-North RAA (see Figure 2-1). This plume consists primarily of 10C mineral (petroleum-based) oil, but it also contains lesser amounts of PCB transformer oil. Both the 10C and PCB oils were used as a dielectric fluid in transformers.

**East Street Area 2 - South**

This area is approximately 50 acres of the western portion of the GE facility. It is generally bounded by East Street to the north, Newell Street to the east, the Housatonic River to the south, and the Lyman Street Area to the west. The western portion of this area is occupied by the 60s Building Complex and former Scrapyard, and is otherwise primarily paved areas. The eastern portion of this area contains a former Housatonic River oxbow (Oxbow H) that was formed when the river meandered through this area. Oxbow H was cut off from the river during the 1940s when the U.S. Army Corps of Engineers (USACE) rechannelized the river in the Pittsfield area. This area is currently

**SITE BACKGROUND**

characterized as mostly open areas, with a relatively small wooded area located within the extent of the former oxbow.

The East Street Area 2 transformer oil plume formerly extended across the entire site from north to south, reaching the East Branch of the Housatonic River where, in the past, oil was detected seeping out of the riverbanks and into the river. During the last 30 years, GE has implemented a variety of environmental investigations and remedial actions in this area to help characterize, control, and remediate this oil plume. GE has used the following facilities and containment barriers at the site: (1) groundwater and wastewater treatment plants; (2) a thermal oxidizer unit; (3) oil containment booms along the riverbank oil seeps; (4) oil/groundwater extraction wells and caissons; (5) underground slurry and sheetpile containment walls; (6) and oil/ water separators. GE used the thermal oxidizer unit from 1972 through 1996 to burn waste transformer oils.

In addition to the transformer oil plume, there are several other areas at the site with outstanding environmental issues, including the Scrapyard Area, Oxbow H fill area, and the Building 68 PCB tank collapse. Various oils, solvents, and other chemicals were reported to have been released to the ground in the Scrapyard Area during the routine handling and crushing of drums, transformers, and other spent equipment from GE's operations. Waste products from the Berkshire Gas coal gasification plant were disposed of in and along the banks of the eastern and central portions of Oxbow H. These wastes included coal tar and spent oxides associated with cyanides and various metals. In 1968 a PCB storage tank collapsed at Building 68, releasing approximately 1,000 gallons of PCB transformer oil onto the riverbank and into the Housatonic River itself.

**East Street Area 2 - North**

This area, which is approximately 50 acres, is also located within the western portion of the GE facility. This area includes primarily buildings and pavement; however, several relatively small grassy areas are present within the eastern portion. This area is generally bounded by Tyler Street to the north; New York Avenue to the east; Woodlawn Avenue and the 40s Complex to the west; and Merrill Road, the 20s Complex, and East Street Area 1 to the south.

The East Street Area 2-North Site housed the bulk of the former GE Transformer Division facilities, and it contains the source of the major transformer oil plume that extends southward to the Housatonic River. GE states that transformer oil leaks and spills from the oil storage tanks and distribution facilities (leaking pipes) in East Street Area 2-North were the source of the oil plume.

## SITE BACKGROUND

**East Street Area 1 - North**

This area, which is approximately 5 acres, is located immediately south of East Street Area 2 - North and east of the 20s Complex. This area is mostly unpaved, and is generally bounded by Merrill Road to the north and west, East Street to the south, and a non-GE owned commercial area to the east. This area also includes a commercial-use building (of which GE owns a portion), and a relatively small, unpaved GE-owned property south of East Street, which contains a NAPL containment/recovery system.

Transformer oil leaks from GE's 12F Tank Farm, formerly located just north of the railroad tracks in East Street Area 2-North, migrated underground as an oil layer floating on groundwater into the residential area north of East Street where it was initially detected in the 1950s. The oil was identified as 10C mineral oil contaminated with PCBs. GE has conducted multiple environmental investigations and oil recovery operations at the site since the 1950s. Currently, GE operates two oil recovery systems along East Street near the intersection with Newell Street.

**On-Plant Consolidation Areas**

The Consent Decree states that "materials that are excavated or otherwise removed from their current location at the site and demolition debris from building demolition may be permanently consolidated at the GE Plant Area using a combination of the Hill 78 Consolidation Area, the Building 71 Consolidation Area, and another potential Consolidation Area at the corner of New York Avenue and Merrill Road."

**Hill 78 On-Plant Consolidation Area**

This area, which is approximately 6 acres, currently rises about 15 feet above grade and is located near the center of the GE facility. This area includes the former Hill 78 Landfill, which was originally created in the early 1940s as an on-site disposal area for excavated soils generated within the GE facility. The landfill was capped in 1991 with a geotextile layer and 1 foot of either crushed stone or soil. This area is being used as an on-plant consolidation area (OPCA) for certain materials excavated during the ½-mile reach removal action and will be used for disposal of some materials to be excavated during the 1 ½-mile reach removal action. These consolidation materials will be classified as non-TSCA (i.e., containing less than 50 parts per million [ppm] of PCBs). Once filled, the area will be covered using a multi-layered engineering cap.

GE began using the 3.5-acre Hill 78 Landfill in the early 1940s for the disposal of excavated soils, plant demolition and construction debris, and other solid wastes. Drums containing PCB-contaminated soil were

**SITE BACKGROUND**

allegedly disposed of in the landfill during the 1950s and 1960s. From the 1970s to 1990, materials placed in the landfill included soils and construction debris containing PCBs at concentrations less than 50 ppm. This practice was discontinued in 1990 at MDEP's request, and an MDEP-approved cover was placed over the landfill as a short-term remedial measure.

**Building 71 On-Plant Consolidation Area**

This approximately 5-acre area within the central portion of the GE facility is located immediately to the east of the Hill 78 On-Plant Consolidation Area. This area is unpaved and is bounded by paved parking areas to the north and east, by the Hill 78 On-Plant Consolidation Area to the west, and PG&E Generating Company facilities to the south. This area is being used as an on-plant consolidation area for certain materials excavated during the ½-mile reach removal action and will be used for disposal of some materials to be excavated during the 1 ½-mile reach removal action. The design of the Building 71 OPCA includes a base liner system and berms to contain and collect rainwater and snowmelt. TSCA-regulated materials (i.e., containing greater than 50 ppm of PCBs) are placed at the Building 71 OPCA. Once filled, the area will be covered using a multi-layered engineering cap.

**Hill 78 Area - Remainder**

The remaining portion of the Hill 78 Area consists of approximately 60 acres of the GE facility. These areas are bounded by the Tyler Street Extension to the north, Merrill Road to the south, New York Avenue and other areas of the GE facility to the west, and other areas of the GE facility to the east. With the exception of paved roadways associated with Building 78, the PG&E Generating Company's cogeneration facility, the remaining areas of the Hill 78 Area are generally open. A small portion of this area (on the southeastern corner of the site near the intersection of New York Avenue and Merrill Road) has also been selected for possible future use as an on-plant consolidation area.

**Unkamet Brook Area**

This area, which is approximately 140 acres, consists of the eastern portion of the GE facility and is bounded by Dalton Avenue to the north, Plastics Avenue and the Hill 78 Area - Remainder to the west, Merrill Road to the south, and to the east by railroad tracks. This area also contains commercial/recreational property located between Merrill Road and the Housatonic River to the south.

The GE-owned portion of this area located west of Unkamet Brook is mostly paved and is occupied by large buildings. The GE-owned portion of this area east of Unkamet Brook, as well as much of the land between

**SITE BACKGROUND**

Merrill Road and the Housatonic River, is undeveloped (except for the area associated with Building OP-3 and the commercial area along Merrill Road).

GE operated the Interior Landfill, covering approximately 14 acres, until the late 1970s. An asphalt-paved parking lot covers the western portion of the landfill. The eastern portion is uncovered and lies within the Unkamet Brook wetlands area. Unkamet Brook bisects the landfill and flows directly to the Housatonic River. The landfill lies within the Unkamet Brook 10-year floodplain.

Soil, excavated as part of the construction of GE Buildings OP-1 and OP-2 in 1940 and 1941, was disposed of in the landfill along with wastes related to bushing operations conducted in GE Buildings 51 and 59. Excavations performed during the rerouting of Unkamet Brook in the late 1970s indicated the presence of capacitors that had been disposed of in the Interior Landfill. An Immediate Response Action under the Massachusetts Contingency Plan was conducted in June 1998 because of the presence of drums, capacitors, bushings, and insulators at the landfill surface along Unkamet Brook. The drums and electrical equipment observed along Unkamet Brook were removed and disposed of off-site.

A Former Waste Stabilization Basin is located west of Unkamet Brook, south of the western portion of the Interior Landfill, and north of Merrill Road on the GE facility. For more than 40 years, wastewater and stormwater were discharged into the basin and then into Unkamet Brook. In December 1979, in accordance with an agreement between GE and MDEP, the discharge of wastewater to the waste stabilization basin was discontinued. From 1979 to 1980, GE conducted an investigation to characterize the sediments within the Former Waste Stabilization Basin. The presence of VOCs, SVOCs, PCBs, and inorganic constituents was identified. In 1981, standing liquids and the sludge within the basin were removed and disposed of in a secure, permitted landfill. Following the removal of these materials, the basin was backfilled with gravel, capped with soil, and seeded.

Although the Waste Stabilization Basin has been remediated by GE, a large VOC groundwater contaminant plume associated with the former site was identified extending from the former waste basin to the Housatonic River.

**Groundwater**

Groundwater and oil releases associated with the aforementioned areas will require investigation and monitoring, and possibly containment, treatment, and product recovery. The oils detected at the GE/Housatonic River Site are classified as either light non-aqueous phase liquids (LNAPLs) or dense non-aqueous phase liquids (DNAPLs). The LNAPLs



## SITE BACKGROUND

are lighter than water and generally tend to accumulate at the top of the groundwater table. The DNAPLs are denser than water and tend to migrate downward through the groundwater table and accumulate at the top of the low permeability soil or rock layers.

The primary concern is to prevent contaminated groundwater and NAPLs from adversely affecting surface water, e.g., Unkamet Brook, the Housatonic River, and Silver Lake. The groundwater and NAPLs will also be evaluated to ensure that any vapors emitting from contaminated groundwater and oil releases do not pose a risk to the occupants of buildings.

### **2.3.4.2 Housatonic River Study Area**

The Housatonic River study area includes river sediments, riverbank materials, and floodplain soils of the Housatonic River that are contaminated with hazardous substances, especially PCBs. Numerous studies conducted since 1982 have included river sediment, fish tissue, and benthic organism samples collected from the Housatonic River. Based on the nature and extent of contamination, the study area currently extends from approximately Unkamet Brook to the mouth of the Housatonic River at Long Island Sound (see Figure 2-3). PCB contamination has been detected for many miles below the confluence, and further EPA studies are underway. The most PCB-contaminated area is a 12-mile segment that begins at the confluence of the Housatonic River with the Unkamet Brook in Pittsfield and ends at Woods Pond in Lenox, Massachusetts.

The Housatonic River is used for recreation, including fishing, boating, and swimming. The Housatonic River has been closed to fishing for human consumption since 1982 due to PCB contamination.

The Housatonic River cleanup is divided into three segments or reaches, the first ½ mile adjacent to the facility, the next 1 ½ miles downstream to the Confluence of the East and West Branches, and the Rest of River downstream of the confluence.

#### **Upper ½-Mile Reach**

The first ½ mile reach of the Housatonic River subject to remediation is located in a densely populated area near the center of Pittsfield between the Newell Street and Lyman Street Bridges. The area is primarily commercial/industrial, although there is one recreational property abutting the Housatonic River. A portion of GE's property abuts the river to the north, and several commercial/industrial properties, a playground, and additional GE property abut the river to the south. The entire ½-mile section of the river was channelized by the city and USACE in the 1940s.

**SITE BACKGROUND**

As a result, there are relatively steep banks and minimal floodplain in this area. Five former oxbows are present in this stretch of the river. Many of the historical contaminant discharges to the Housatonic River were likely to have occurred within this ½-mile. The Building 68 PCB tank release referenced above occurred at the approximate mid-point of the first ½ mile reach.

Remediation in the first ½ mile consists of two separate cleanup phases conducted by GE under EPA requirements. In 1997 and 1998, GE excavated and disposed of 5,000 cubic yards of heavily contaminated sediments from a 550-foot section of the river and 2,230 cubic yards of heavily contaminated bank soils from a 170-foot stretch of the riverbank associated with the Building 68 tank spill.

The second phase of the cleanup consists of riverbank soil and sediment excavation throughout the first ½ mile. GE initiated cleanup activities in October 1999, and the ½ mile cleanup is scheduled to be completed in June 2002.

**1 ½-Mile Reach**

The next 1 ½ miles of the river below the Upper ½-Mile Reach are located in an area with residential, commercial, industrial, and undeveloped/recreational properties. There are approximately 40 residential properties located within or adjacent to the floodplain. Approximately 1,500 feet of this reach was channelized by the city and USACE in the 1940s, and three former oxbows are within this stretch of the river. In the first mile, the riverbanks are generally steep and the floodplain narrow. In the final ½ mile, the riverbanks are relatively low, resulting in a broad floodplain. The 1 ½-Mile Reach begins at the Lyman Street Bridge and ends at the Confluence of the East and West Branches of the Housatonic River.

Contamination from the GE facility has migrated downstream from the Upper ½-Mile Reach and has impacted the riverbank soils and river sediments in this reach. In addition, coal tar contamination related to the former Pittsfield Coal Gas Company (now Berkshire Gas) Works has been detected in the 1 ½-Mile Reach sediment and riverbank soils. EPA will perform the cleanup of the sediments and riverbanks in this 1 ½-Mile Reach under the Consent Decree. GE and EPA will share the costs of this cleanup under a formula presented in the Consent Decree.

**Rest of River Investigation**

EPA is conducting an investigation of the Rest of River below the 1 ½-Mile Reach into Connecticut, which is focused on collecting information for and preparing the human health and ecological risk assessments and modeling PCB fate and transport in the river. Following the

## SITE BACKGROUND

investigations and peer review, GE will prepare a Supplemental Resource Conservation and Recovery Act (RCRA) Facility Investigation Report, propose cleanup levels, and analyze cleanup alternatives (corrective measures). After consultation with MDEP and receipt of public comments, EPA will select corrective measure(s) for the Rest of River. The Rest of River response action, if necessary, is estimated to begin in 2006-2007.

Numerous studies have been conducted since 1988 that document PCB contamination of biota (fish, birds, etc.), sediments, and floodplain soils adjacent to the Housatonic River downstream of the plant, and investigations are still ongoing.

### **2.3.4.3 Allendale School Soils**

Allendale School is located to the north of the Hill 78 Landfill, across the Tyler Street Extension. The school was constructed in 1950 on a 12-acre parcel. When the Allendale School was being constructed, GE and the City of Pittsfield entered into an agreement under which GE permitted the City of Pittsfield to remove approximately 40,000 cubic yards of soil from the GE property for use as fill in the schoolyard. The area from which the soil was removed is now known as the Hill 78 Landfill Area.

MDEP initially identified concerns associated with the Allendale Schoolyard when PCBs were detected during construction of the Altresco Corporation Cogeneration Facility (now owned by the PG&E Generating Company). The Altresco facility was constructed next to the Hill 78 Landfill. At the time of construction, environmental samples were collected and contamination was identified. It was at this point that the connection was made that the soil used as fill at the school might also be contaminated. Results from soil/water sampling events from 1990 to 1996 indicated the presence of various hazardous substances, including VOCs, SVOCs, herbicides, PCBs, furans, and inorganic constituents.

In 1991, a geotextile layer and "clean" soil cover was constructed on a portion of the Allendale School property to isolate the contamination. The cover (or cap) was approximately 5 acres and was applied to the areas where the concentration of PCBs found in soil samples exceeded 2 ppm.

At the request of MDEP, GE initiated field activities to delineate areas outside of the existing cap that had PCB soil contamination greater than 2 ppm. As a result of those field activities, GE performed a limited removal of 1,600 cubic yards of impacted soil from the Allendale School property during April 1998.

In July 1999, GE commenced a soil removal action for the Allendale School Property pursuant to an Action Memorandum issued by EPA on

## SITE BACKGROUND

July 12, 1999. The action involved the removal of all PCB-contaminated soil above 2 ppm from the Allendale School property. The temporary cap and the underlying PCB-contaminated soils were excavated and removed during the action. The work was completed in the fall of 1999.

Once backfilling was complete, the schoolyard was restored. Restoration included placing topsoil and grass sod, installing soccer and baseball fields, constructing a walking track, and installing a paracourse system. Restoration also included planting new shrubs and trees.

On January 20, 2000, a pre-certification inspection was conducted by representatives of GE, EPA, and MDEP. On February 18, 2000, GE submitted a Final Completion Report for the Allendale School Removal Action.

#### **2.3.4.4 Silver Lake**

Silver Lake, which is located on the GE facility property, is a 26-acre body of water reaching a maximum depth of about 30 feet. The lake is bounded by the GE facility to the east and northeast, commercial properties to the north, and a mixture of commercial and residential properties to the south and west. Several of the residential properties surrounding Silver Lake have received fill from GE in the past and are subject to the Residential Fill Property Program.

Currently, stormwater from both the City of Pittsfield and GE is discharged to the lake through both municipal and GE outfalls. Local groundwater also discharges into Silver Lake. Once in the lake, excess water flows into the Housatonic River via an overflow embankment and a concrete conduit that passes under East Street.

Silver Lake has been the subject of numerous investigations performed by GE since the mid-1970s. Studies have been conducted on the lake under a Consent Order issued to GE by MDEP in May 1990. The main contamination found in the Silver Lake sediment is PCBs. Overall, the sediments in the lake are heavily contaminated and show evidence of "silting over," meaning the highest concentrations of PCBs are found below the top 6 inches of sediment. The lake sediments have been analyzed for other hazardous substances, and analyses revealed the presence of organic compounds (mainly acetone, methylene chloride, PAHs, dioxins/furans, and phenols) and metals (aluminum, calcium, chromium, iron, lead, and zinc).

There are several possible sources of contamination to Silver Lake. The most probable source of the PCBs detected in Silver Lake is the historic discharge of process water and stormwater from the GE Facility. GE currently operates four National Pollutant Discharge Elimination System

## SITE BACKGROUND

(NPDES) permitted outfalls into Silver Lake. These four GE outfalls discharged process and stormwater associated with areas of the GE Facility where PCBs were historically handled.

Other industries and commercial properties are or have been located around Silver Lake, which may have contributed to the contamination detected in the lake. Until the mid-1970s, Pittsfield's sanitary sewers discharged into the lake. Two power plants used the lake to withdraw and discharge non-contact cooling water. In addition, inadvertent releases of chemicals at GE or other industrial/commercial properties may have entered the storm sewers or sanitary sewers, which discharged to Silver Lake.

Under the Consent Decree, GE is required to conduct remediation for Silver Lake including limited sediment removal, installing a cap over the entire lake bottom, and bank soil removals.

Following sediment removal and capping, GE will conduct natural resource restoration and habitat enhancement activities at Silver Lake.

#### **2.3.4.5 Former Oxbow Areas**

During the 1940s, efforts to alleviate potential flooding problems by straightening the Pittsfield segment of the Housatonic River by the City of Pittsfield and USACE resulted in 11 former oxbows being isolated from the river channel. These oxbow channels were subsequently filled with soil and other materials that were later discovered to contain PCBs and other hazardous substances.

As described in the Consent Decree, the Former Oxbow Areas have been divided into five Removal Action Areas (RAAs) (Figure 2-1). These RAAs are designated for soil-related remedial actions. Groundwater and oil-related actions will be handled separately under several Groundwater Management Areas (GMAs).

##### **Former Oxbow Areas A and C**

Former Oxbow Area A is approximately 5 acres and occupies a large open field on the southern side of the Housatonic River north of Elm Street and Newell Street. The majority of this area is undeveloped and covered with grass and low brush, although commercial businesses occupy a portion of the parcels containing the former oxbows. Former Oxbow Area C is approximately 2 acres and located immediately east of Former Oxbow Area A, along the southern side of the Housatonic River, near the end of Day Street. A drainage ditch leading to the Housatonic River bisects Oxbow C. This area consists mostly of an undeveloped field surrounded by trees and brush.

## SITE BACKGROUND

Various portions of former Oxbows A and C were progressively filled with soil and other materials from the 1940s to the 1980s. In response to MDEP requirements, GE began conducting preliminary investigations at these fill areas in 1988. PCBs were the primary contaminant detected during these investigations; however, VOCs, SVOCs, pesticides, herbicides, dioxins, furans, and metals were also detected at one or both of the oxbow areas. In 1997, GE conducted an Immediate Response Action (IRA) soil removal under the Massachusetts Contingency Plan at the northeast corner of Oxbow C to address surficial PCB soil contamination. The excavated area was backfilled with clean soil and replanted with grass and thorny shrubs to limit access to the wooded areas where some contaminated soils remained. Only limited environmental data are available for former Oxbows A and C, and more investigations are scheduled under the requirements of the Consent Decree.

**Lyman Street Area**

This area, which is approximately 9 acres, is located immediately west of the East Street Area 2 - South and is bounded by the Housatonic River to the south, East Street and several commercial/residential properties to the north, and Cove Street to the west. Approximately 3 acres of this area consists of the GE-owned Lyman Street Parking Lot, which is paved. Former Oxbow D underlies the parking lot area. The remaining GE-owned portions of this area are partially paved and undeveloped. The non-GE-owned portions of this area consist of an undeveloped right-of-way for high-tension electricity transmission lines (containing Former Oxbow Area E) and Former Oxbow Area B. Former Oxbow Area B is approximately 3 acres and located north of and across the Housatonic River from Former Oxbow Area C, west of Lyman Street, and immediately east of Cove Street. Nearly all of this former oxbow area is used for parking in support of local commercial businesses, although a building occupies a small portion of this area. The remaining portions are undeveloped.

Oxbows B, D, and E were filled with soil and other materials during the 1940s. Various GE environmental investigations, starting in 1986, have determined that the fill is primarily contaminated with PCBs; however, VOCs, SVOCs, pesticides, herbicides, dioxins, and furans were also detected. During a 1990 site reconnaissance, oil seeps were observed, which were later found to contain PCBs. Further investigations detected plumes of both light and dense non-aqueous phase liquids (LNAPL and DNAPL) related to the dumping of transformer oils at the site.

During the last 15 years, GE has implemented a variety of environmental investigations and remedial actions in this area to help characterize, control, and remediate these oil plumes. GE has used or plans to use the following facilities and containment barriers at the site: oil booms along

**SITE BACKGROUND**

the riverbank oil seeps, oil/groundwater extraction wells, and an underground sheetpile containment wall.

**Newell Street Area I**

This area, which is approximately 11 acres, includes 10 commercial/industrial properties and 3 recreational properties located along Newell Street. All but one of these properties include portions of former Oxbow I, which was filled with soil and other materials beginning in the 1940s. Newell Street Area I is bounded by the Housatonic River to the north, Newell Street to the south, the Lakewood (formerly Hibbard School) playground to the east (including the northwest corner of that playground within this area), and the Ontario Street Extension and the GE-owned Newell Street Parking Lot to the west.

MDEP received notice in 1983 that GE had allegedly disposed of waste transformer oils at the Newell Street sites. In 1987, GE initiated limited environmental investigations at the site that have confirmed the presence of PCBs; however, no transformer oil plumes have been discovered at Newell Street Area I. Other contaminants detected at the site include dioxins, furans, and metals.

GE has completed three IRAs and Short-Term Measures (STMs), performed under the Massachusetts Contingency Plan, at the site involving the removal of limited amounts of PCB-contaminated surface soil, fencing off some contaminated areas, and paving over other contaminated areas.

More investigations have been conducted, and a final cleanup is required under the provisions of the Consent Decree.

**Newell Street Area II**

This area, which is approximately 8 acres, is located immediately west of Newell Street Area I and is bounded by the Housatonic River to the north, Newell Street and residential property to the south, and Sackett Street to the west. Approximately 3 acres of this area is composed of the GE-owned Newell Street Parking Lot, which is paved. Former Oxbow Area G is located under the parking lot. The remaining GE-owned portions of this area are wooded. The non-GE-owned portions of this area consist of an undeveloped right-of-way for high-tension electricity transmission lines, and undeveloped private property. Former Oxbow Area F is located within this right-of-way.

MDEP received notice in 1983 that GE had allegedly disposed of waste transformer oils at the Newell Street sites. In 1987, GE initiated limited environmental investigations at the Newell Street Area II site that have confirmed the presence of PCBs and both LNAPL and DNAPL

## SITE BACKGROUND

transformer oil plumes. Other contaminants detected at the site include VOCs, SVOCs, pesticides, dioxins, furans, and metals.

Since 1998, GE has conducted both manual and automated oil (LNAPL and DNAPL) recovery system operations at the Newell Street Area II site.

More investigations will be conducted, and a final cleanup is required under the provisions of the Consent Decree.

### **Former Oxbow Areas J and K**

These areas are located approximately 2,500 feet upstream of the Newell Street Bridge. Former Oxbow Area J occupies approximately 4 acres and is located on the northern side of the Housatonic River near Fasco Place. A drainage ditch, originating at a City of Pittsfield stormwater outfall and leading to the Housatonic River, bisects Oxbow J. Former Oxbow Area K occupies approximately 1 acre and is located on the southern side of the Housatonic River across from Former Oxbow Area J near Ventura Avenue. The outlet channel from Goodrich Pond crosses Oxbow K and empties into the Housatonic River. While Former Oxbow Area K is undeveloped, Former Oxbow Area J is composed of residential property to the west and commercial property to the north along East Street.

Beginning in the 1940s and ending in the 1980s, various portions of former Oxbows J and K have been progressively filled with soil and other materials. In response to MDEP requirements, GE began conducting preliminary investigations at these fill areas in 1988. PCBs were the primary contaminants detected during these investigations; however, SVOCs, pesticides, dioxins, and furans were also detected at one or both of the oxbow areas. Only limited environmental data are available for former Oxbows J and K, and more investigations are scheduled under the requirements of the Consent Decree.

More investigations will be conducted, and a final cleanup is required under the provisions of the Consent Decree.

### **2.3.4.6 Groundwater Management Plan**

A number of non-aqueous phase liquid (NAPL) releases have occurred at the GE site over the years during the operation of the facility. In response to EPA and MDEP regulatory requirements related to these NAPL releases, GE is operating a system of NAPL recovery wells and NAPL containment barriers at the site. The primary purpose of these systems is to isolate the NAPL or remove the NAPL from the site so that it does not impact human health or the environment. To ensure that the NAPLs or the associated contaminated groundwater do not reach the Housatonic River or impact the air quality in local buildings and homes, GE will



## SITE BACKGROUND

continue to implement groundwater/NAPL monitoring, assessment, and response programs at the following Groundwater Management Areas (GMAs) (see Figure 2-5):

- GMA-1 (Plant Site 1) (including the 40s Complex, 30s Complex, 20s Complex, East Street Area 2-South, East Street Area 2-North, East Street Area 1-North, East Street Area 1-South, Lyman Street Area, Newell Street Area II, Newell Street Area I, and Silver Lake Area).
- GMA-2 (Former Oxbows J and K)
- GMA-3 (Plant Site 2) (including the portion of the Unkamet Brook Area east of Plastics Avenue).
- GMA-4 (Plant Site 3) (including the Hill 78 Consolidation Area, the Building 71 Consolidation Area, the Hill 78 Area-Remainder, and the portion of the Unkamet Brook Area west of Plastics Avenue).
- GMA-5 (Former Oxbows A and C).

#### **2.3.4.7 Housatonic River Floodplain**

Periodically, the low-lying areas bordering the Housatonic River are flooded during and after storms. During these storms, flood waters deposit river sediments on the floodplain. Because of the PCB contamination in the Housatonic River sediments, the floodplain area soils have become contaminated over the years as the flood waters deposit contaminated sediments on the floodplain.

GE initiated floodplain environmental investigations in 1988 and detected the presence of PCBs in floodplain soils. GE established that most of the PCB contamination was within the extent of the floodplain area inundated during a 7- to 8-year flood event (a storm event that occurs every 7 to 8 years, on average).

Under the provisions of the Consent Decree, GE will continue to investigate contamination in floodplain soils for the areas listed below. Figure 2-4 shows the locations of the floodplain properties identified in the Consent Decree.

#### **Floodplain Current Residential Properties Adjacent to 1 1/2-Mile Reach- Actual/Potential Lawns**

The 1 1/2-Mile Reach is bounded by the Lyman Street Bridge (upstream) and the Confluence with the West Branch. This area includes the non-bank portions of approximately 35 residential properties along this reach, where actual or potential lawn areas are located within the floodplain.

## SITE BACKGROUND

**Floodplain Non-Residential Properties Adjacent to 1 1/2-Mile Reach**

As noted above, the 1 1/2-Mile Reach is bounded by the Lyman Street Bridge (upstream) and the Confluence with the West Branch, including Fred Garner Park. This area includes non-bank portions of approximately 11 non-residential properties along this reach where such portions are located within the floodplain. Excluded from this area are those properties associated with the Former Oxbow Areas.

**Floodplain Residential and Non-Residential Properties Downstream of Confluence**

This area includes, with some exceptions, residential properties where actual or potential lawn areas exist within the floodplain, including approximately 12 residential properties between the confluence and Woods Pond Dam that constitute about 13 acres. In addition, the non-residential portion of the floodplain in this area constitutes about 1,100 acres of wetland and other natural habitats.

**2.4 AGENCY/REGULATORY ACTIVITIES**

MDEP and EPA have worked in concert to address the contamination on and off the GE Pittsfield facility and GE's cleanup activities.

**2.4.1 Administrative Consent Order and Resource Conservation and Recovery Act**

The site has been subject to investigations dating back to the early 1980s. Prior to the Consent Decree, the investigations were consolidated under two regulatory mechanisms: Administrative Consent Orders with MDEP and a Corrective Action permit with EPA under the Resource Conservation and Recovery Act (RCRA).

GE and MDEP have signed two sets of Administrative Consent Orders. The first Consent Order was signed in May 1981 and covered contamination at "the Plant," "areas in and around the Plant," and the Housatonic River. Two Consent Orders were signed in 1990. The May 1990 Consent Order covers the Housatonic River and Newell Street Area I. The June 1990 Consent Order covers East Street Area I, East Street Area II, Unkamet Brook, the Hill 78 Landfill Area, the "rest of the facility," and "related sites."

A revised Administrative Consent Order executed by MDEP and consented to by GE on November 13, 2000, is described in Subsection 2.4.2.2.

## SITE BACKGROUND

On February 8, 1991, EPA issued a RCRA Corrective Action Permit to GE for the GE facility in Pittsfield. The permit established a process and a schedule for the assessment and remediation of releases of hazardous wastes at, and from, the GE facility. GE appealed the permit, and it was subsequently revised and reissued effective January 3, 1994. The permit specifically addressed the 11 study areas (per MDEP listing) presented in Table 2-1.

In 1997, off-site properties that received contaminated fill from GE were also made subject to investigations and cleanup under the Administrative Consent Orders.

GE has performed investigations and short-term cleanups under the EPA RCRA permit and/or the Administrative Consent Orders with MDEP. The results of these actions and investigations are available in numerous documents, reports, letters, data packages, and other submittals to EPA and MDEP (see listing of Information Repositories in Attachment C of this Community Relations Plan).

## **2.4.2 EPA and MDEP Activities – 1997 to Present**

### **2.4.2.1 National Priorities List**

On September 25, 1997, EPA proposed to place the GE/Housatonic River Site on the National Priorities List (NPL). The NPL is EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)/ Superfund. The list is based primarily on the score a site receives from the Hazard Ranking System. The site received a Hazard Ranking System score of 70.71. Any site that receives a Hazard Ranking System score of 28.5 or higher is eligible to be listed on the NPL. The proposed NPL site covers all of the study areas listed in the RCRA permit and the Administrative Consent Orders (see Table 2-1). The GE/Housatonic River Site has not been listed on the NPL; however, as discussed in the following subsection, the Consent Decree includes the provision that if GE does not comply with the terms and timetables of the agreement, EPA retains its authority to list the site on the NPL. Additional information about the NPL, CERCLA, and Superfund is presented in the Glossary (Attachment B).

### **2.4.2.2 Negotiations**

In October 1997, EPA, in combination with the U.S. Department of Justice, the Commonwealth of Massachusetts, the State of Connecticut, the City

## SITE BACKGROUND

of Pittsfield, and the State and Federal Trustees, formed an intergovernmental team and, with the assistance of a mediator, initiated negotiations with GE. The objective of the negotiations was to achieve a comprehensive agreement for cleanup of the entire site. In the interim, the public comment period on the proposed NPL listing was extended until May 1, 1998. On April 2, 1998, the negotiations were terminated without an agreement between the intergovernmental team and GE. Negotiations were resumed during the summer months of 1998, and in September 1998, the parties achieved an Agreement in Principle.

**Consent Decree**

On October 7, 1999, the parties lodged with the court a comprehensive Consent Decree agreement providing for cleanup of the Housatonic River and associated areas, cleanup of the General Electric Pittsfield Plant facility, environmental restoration of the Housatonic River, compensation for natural resource damages, and government recovery of past and future cleanup costs. On October 27, 2000, U.S. District Court Judge Michael A. Ponsor gave final court approval to the Consent Decree.

The Consent Decree was among GE; the United States, including EPA, Department of Justice, Department of Interior and National Oceanic and Atmospheric Administration; the Commonwealth of Massachusetts, including MDEP, Executive Office of Environmental Affairs, and the Massachusetts Attorney General; and the State of Connecticut, including Connecticut Department of Environmental Protection (CTDEP) and the office of the Connecticut Attorney General; the City of Pittsfield and the Pittsfield Economic Development Authority.

EPA is the lead agency, but MDEP has a review and comment role and is consulted by EPA prior to making decisions under the Consent Decree. By mutual agreement, various project management tasks have been divided between the two agencies to eliminate redundancies and better focus available resources.

The agreement includes the following major components:

- **I. Cleanup of Contaminated Areas** – Cleanup areas include the GE Plant Site including Silver Lake and Unkamet Brook; the former oxbows, including Newell Street commercial properties; the Housatonic River sediments, banks, and floodplain properties downstream of the GE Plant Site; and the Allendale School.

Overall principles of the cleanup include:

- Extensive sampling at GE and the non-GE owned properties.

## SITE BACKGROUND

- GE to perform the cleanups except on the 1 ½-Mile Reach of the Housatonic River.
  - Provision for disposal of material and debris excavated from areas subject to the Consent Decree.
  - Environmental Restrictions and Easements (EREs) to be placed on all GE-owned properties to ensure that current uses will not change.
  - Two options for non-GE owned, non-residential properties: (1) cleanup that is protective of the current use with EREs, or (2) a conditional solution that provides a cleanup protective of current use and, instead of EREs, requires additional cleanup if the use of the property changes.
  - Cooperative approach to managing cleanup activities.
  - Parties have management system for project implementation to ensure that project is managed in a collaborative and cooperative manner.
  - Public to provide input throughout implementation of the work.
- **II. Restoration of Natural Resources** – Agreement includes both primary restoration to compensate the public for natural resource damages by cleaning up valuable resource areas to the extent practicable and provide compensatory restoration to the public for natural resource damages that cannot be addressed through the cleanup. Additional details about the restoration of natural resources are described in the Summary of the Agreement presented in Attachment G.
  - **III. Recovery of Government Costs** – GE has agreed to repay government costs incurred, within specific limitations.
  - **IV. Effect and Form of the Consent Decree** – The settlement agreement is in the form of a federal court Consent Decree. EPA agrees to defer the final decision about whether or not to list the site on the CERCLA National Priorities List.

Additional actions include the following:

- **Enhanced Public Participation** – Expansion of the public participation process through the Citizen’s Coordinating Council and by providing additional outreach (including public meetings, small neighborhood meetings, and individual meetings) to property owners affected by the agreement.

## SITE BACKGROUND

- **Brownfields Redevelopment and Economic Aid**—GE, the City of Pittsfield, and the Pittsfield Economic Development Authority (PEDA) have entered into a Definitive Economic Development Agreement. Under this agreement, GE will clean up the plant site to agreed-upon Consent Decree standards, demolish several buildings, provide some funding for constructing new buildings, and transfer portions of the property to PEDA for economic redevelopment. In addition, GE will provide economic aid to the City of Pittsfield for 10 years and make upgrades to add aesthetic value to and enhance local habitat on the plant site and around Silver Lake.

As noted previously, in Subsection 2.3, the Consent Decree lists the following specific areas for cleanup:

- GE Plant Site, including Unkamet Brook and its floodplain, Hill 78 and Building 71 consolidation areas, and non-GE-owned property within the GE Plant Site.
- Groundwater.
- Former oxbow areas.
- Allendale School.
- Residential properties in 1 ½-Mile Reach and downstream of 2-Mile Reach of Housatonic River.
- Nonresidential areas in 1 ½-Mile Reach of Housatonic River.
- Silver Lake.
- Housatonic River-Upper ½-Mile Reach.
- Housatonic River-Next 1 ½-Mile Reach from the Lyman Street Bridge to the Confluence of the East and West Branches.
- Housatonic River-Rest of River – Contaminated river sediments, banks, and floodplain areas (other than actual or potential lawns) downstream of the confluence with the West Branch.

Additional information about the Consent Decree is presented in the Summary of the Agreement (Attachment G) and in Subsection 3.3.

#### **Administrative Consent Order**

A revised Administrative Consent Order (ACO) was executed by MDEP and consented to by GE on November 13, 2000. The revised ACO supersedes two 1990 ACOs between MDEP and GE and provides for continued assessment of remediation of off-site properties contaminated

## SITE BACKGROUND

with fill from the GE Pittsfield facility (including East Street Area 1 - South), and includes a streamlined process for the residential fill properties.

### **2.4.2.3 EPA and MDEP Residential Efforts**

From the 1940s through the early 1980s, GE gave away thousands of tons of fill from its facility to Pittsfield-area homeowners and contractors. When it became apparent that the GE fill was potentially contaminated with PCBs, EPA and MDEP worked with the community to identify properties that may have received contaminated fill. Although GE initiated sampling and soil removal activities at many of the identified residential fill sites in 1997, EPA and MDEP also undertook a sampling program to determine the presence of contamination at other residences suspected of having received contaminated fill.

EPA and MDEP have conducted numerous activities at the site serving a variety of purposes, including identifying potentially contaminated properties, informing the public about PCBs, and advising residents of protective actions to be taken.

A number of residential floodplain properties along the Housatonic River were sampled by EPA, and Short-Term Measures were implemented at some of these properties. At Deming Street, a major cleanup effort has been completed to remediate contaminated soils to an average PCB concentration of 2 ppm at depths of up to 4 feet. In addition, EPA has recently undertaken its own floodplain sampling efforts to determine the level and extent of the floodplain contamination downstream of the GE facility. Portions of many residential properties along the Housatonic River fall within the river's floodplain and may have been impacted by the PCB contamination.

In an effort to advise and inform the public about PCBs, MDEP and EPA jointly issued two fact sheets in August 1997 to the residents of Pittsfield. One fact sheet, entitled "Polychlorinated Biphenyls (PCBs)—A Fact Sheet" discussed PCBs and answered commonly asked questions regarding PCB exposure at the GE and Housatonic River hazardous waste sites. The second fact sheet, dated August 7, 1997, entitled "Residential Properties Which May Contain Contaminated Fill from the General Electric Company," responded to additional questions regarding the sampling efforts in residential areas. This fact sheet on the residential properties was updated September 24, 2001, and a public meeting was held on November 7, 2001.

In March 1998, MDEP and EPA issued an update of the cleanup of the residential properties. The update was entitled "U.S. EPA and MDEP Environmental Update for the Berkshires." The update discussed the

## SITE BACKGROUND

investigative and cleanup processes and presented questions and answers regarding soil sampling. Copies of the fact sheets/update mentioned in this section are presented in Attachment H.

In April 1998, Pittsfield residents received a letter from John DeVillars, Regional Administrator for EPA New England. The letter introduced an action plan that EPA developed because the negotiations had failed at that time. EPA provided residents with a summary of EPA's Action Plan entitled "An Action Agenda for Economic and Environmental Recovery in Pittsfield and Berkshire County." A copy of the Action Plan is presented in Attachment H.

On April 7, 1998, EPA began a neighborhood canvassing effort in the Lakewood neighborhood to inform residents and answer questions about Berkshire County PCB cleanup activities. On April 21, 1998, EPA conducted personal interviews with residents in neighborhoods where PCB contamination was found. The interviews helped to identify other potential properties to sample for PCBs.

Other EPA and MDEP activities in relation to the residential fill include the following:

- Prior to beginning remediation activities, MDEP and EPA provided fact sheets describing the proposed remedial activities to most of the affected neighborhoods. Fact sheets were distributed by door-to-door hand delivery and by mail.
- MDEP provided to public interest groups GIS-generated maps that indicated the locations of the properties that had been sampled.
- Upon request, MDEP provided public interest groups with updated status lists for residential fill properties that had been sampled and/or remediated to date.
- In fall 1997, representatives of MDEP and EPA began holding office hours 1 day per week for residents dealing with the contaminated fill issue. These office hours were established to enable the public easy access to MDEP's and EPA's representatives regarding residential fill-related issues. The office hours continued through mid-October 1998.

As of December 2001, GE had sampled 315 properties, of which 201 had average total PCB concentrations in excess of 200 ppm. GE has remediated 164 properties, including 25 properties remediated in 2001. GE is targeting five additional sites for remediation in 2002.



#### 2.4.2.4 Removal Actions

##### GE Building 68 Area

Building 68 is located along the western bank of the Housatonic River within GE's facility upstream of the Lyman Street Bridge. In the late 1960s, a PCB storage tank associated with Building 68 and containing liquid PCB Aroclor-1260 collapsed, releasing a portion of its contents onto bank soils and river sediments. It was estimated that approximately 1,000 gallons of liquid PCBs were released to the riverbank. The liquid PCBs contained in the tank were heated and quickly cooled and solidified into a wax-like substance upon release from the tank; consequently, migration of the material was limited. However, some of the solidified material entered the river and settled to the bottom. Visual contamination, including impacted bank soils and sediment, were removed at the time of the release. However, investigations in this area in March 1996 for the East Street Area 2 site identified additional material, including dense nonaqueous phase liquid (DNAPL), which was not removed during the original removal action in 1968 or which was the result of additional releases.

In December 1996, EPA determined that a Superfund removal action was warranted, and issued GE a Unilateral Administrative Order containing a scope of work and schedule. GE was notified by the State that the provisions in the EPA Unilateral Administrative Order were being adopted for use under its Administrative Consent Order. In January 1997, GE, EPA, and Commonwealth officials met to discuss the terms of the removal action. In February 1997, GE submitted a draft Work Plan. EPA provided GE with comments on the Work Plan and met periodically with GE between February and May 1997. In May 1997, GE submitted a revised Draft Work Plan, which was conditionally approved by EPA in June 1997. In June 1997, GE's remediation contractor mobilized to the site.

The sediment removal was conducted by driving sheetpiling into the river bottom to divert river water around the excavation. The excavation was divided into seven "cells" that were excavated in a series. Cells that had yet to be excavated were used to stockpile removed sediments, allowing them to drain. The sediment removal was completed first, before beginning work on the riverbank soils. The only exception to this was a small area of saturated soils on the bank that had to be removed prior to work in the river as a result of stability issues.

Sediment and riverbank soils were removed using a long-reach excavator. All of the sediment and a majority of the riverbank soils were taken off-site to a TSCA landfill. The remainder of the riverbank soils failed Toxicity Characteristic Leaching Procedure (TCLP) for lead and were sent to a RCRA/TSCA landfill and stabilized with cement.

## SITE BACKGROUND

Two of the seven cells were excavated to a depth 2 to 4 ft deeper than planned as a result of higher than expected concentrations of PCBs at depth. The deepest part of the excavation extended to 8 ft below the river bottom. The planned excavation volumes for sediment and riverbank soils at Building 68 were 1,250 yd<sup>3</sup> and 1,000 yd<sup>3</sup>, respectively. The actual quantities of material excavated and disposed of off-site were 5,000 yd<sup>3</sup> (9,509 tons) for sediment and 2,330 yd<sup>3</sup> (3,513 tons) for riverbank soils. The volumes were estimated as “in-place” cubic yards and the weights were determined by measurements at the off-site disposal facility.

Restoration of the area was accomplished by backfilling the excavations with clean fill to a level approximately 16 inches below the initial grade. A 10-inch-thick layer of riprap was placed over the fill and a 6-inch layer of sand was installed as the final cover.

### **Housatonic River from Newell Street in Pittsfield to the Confluence**

On June 3, 1998, EPA issued GE an Administrative Order/ Action Memorandum for a Removal Action. The order specified the removal action area as the section of the East Branch of the Housatonic River from Newell Street in Pittsfield to the confluence of the East and West Branches of the Housatonic River. This stretch includes the Upper ½-Mile Reach, which extends from Newell Street to Lyman Street (subject to a “time-critical” Removal Action as described in the Action Memorandum), and the 1 ½-Mile Reach, which extends from Lyman Street to the confluence (subject to a “non-time-critical” Removal Action as described in the Action Memorandum). The order identified PCBs as the primary contaminants of concern for this area. EPA determined the removal action was necessary to protect public health and welfare and the environment, and to prevent any further release or threat of release of hazardous substances at or from the site.

### **The Upper 1/2-Mile Reach**

The order required GE to perform the following scope of removal activities for the Upper ½-Mile Reach:

- Implementation of temporary measures to limit access and exposure to contaminated areas throughout the site. These measures may include the installation of fencing, repairs to existing fencing, installation of warning signs, inspection and maintenance of fences and warning signs, covering of contaminated soils, and/or soil removal, and public education.
- The elimination or mitigation of all current and potential sources of PCBs and other hazardous substances from entering into the East Branch of the Housatonic River and/or Housatonic River sediments.

## SITE BACKGROUND

- The development and implementation of a monitoring plan(s) to assess compliance with the performance standards for source control measures specified in the second bullet.
- The removal of contaminated sediment and riverbank soils located between Newell and Lyman Streets as a “time-critical” Removal Action.
- The backfilling and restoration of the river sediments and riverbank soils between Newell and Lyman Streets.
- The treatment/ disposal of contaminated sediments, soils, debris, and other materials generated during the removal action.

GE initiated cleanup activities for the ½-Mile Reach in October 1999, and the ½-mile cleanup is scheduled to be completed in June 2002.

### **The 1 ½-Mile Reach: Engineering Evaluation/Cost Analysis**

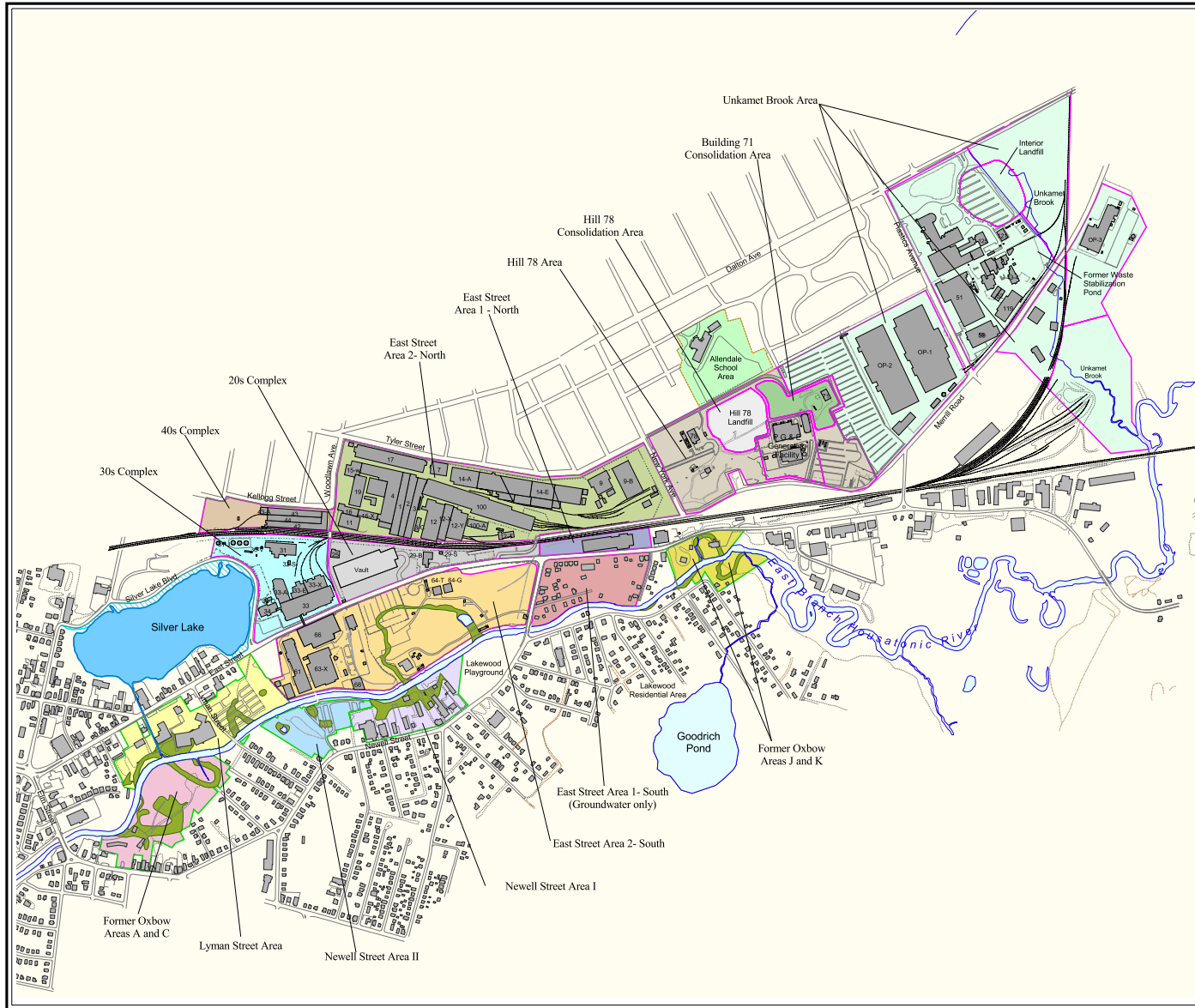
In response to the requirements of the Action Memorandum, and in accordance with CERCLA guidance for Non-Time Critical Removal Actions, EPA conducted an Engineering Evaluation/Cost Analysis (EE/CA) to consider remedial alternatives to address contamination in the 1 ½-Mile Reach. The EE/CA portion of the site consists of a 1 ½-mile stretch of river beginning at Lyman Street (the downstream limit of the Upper ½-Mile Reach removal action being conducted by GE) and ending at the confluence of the East and West Branches of the Housatonic River.

The EE/CA Report (WESTON, 2000) presents an analysis of alternatives to address contamination in river sediments, banks, and floodplain soils within the EE/CA Reach of the Housatonic River. During the 45-day comment period, public information meetings were held in Pittsfield, MA, and Kent, CT, on July 25, 2000 and August 9, 2000, respectively, to discuss the recommended cleanup alternative presented in the EE/CA. A formal public hearing was held in Pittsfield, MA, on August 15, 2000 to receive initial public comments. The formal comment period ended on September 1, 2000.

EPA published its response to comments on the EE/CA and its intended remediation approach in an Action Memorandum dated November 21, 2000. The approach involves dry excavation and removal of bank soils and sediments to be accomplished in three phases of work. The first phase, from Lyman Street to approximately 1,600 feet downstream, will use sheetpile diversion of the river to allow dry excavation. The second phase, from upstream of Elm Street (1,600 feet downstream of Lyman Street) to downstream of Dawes Avenue, will use a pumped bypass of river water for diversion. The third phase, from downstream of Dawes Avenue to the confluence, will use either sheetpile diversion or pumped

**SITE BACKGROUND**

bypass, depending on EPA's experience in the upstream reaches. It is currently estimated that approximately 100,000 cubic yards of PCB-contaminated soil and sediment will be removed and disposed/consolidated for this removal action. Up to 50,000 cubic yards will be placed in GE's On-Plant Consolidation Areas (OPCAs). The remainder will be disposed at licensed off-site facilities. Restoration of excavated areas will incorporate state-of-the-art habitat enhancement techniques and will be designed to encourage re-growth of non-invasive, native plant species.



**LEGEND:**

**GE Plant Area:**

- 20s Complex
- 30s Complex
- 40s Complex
- East Street Area 1 - North
- East Street Area 1 - South (Groundwater only)
- East Street Area 2 - North
- East Street Area 2 - South
- Building 71 Consolidation Area
- Hill 78 Consolidation Area
- Hill 78 Area
- Unkamet Brook Area

**Silver Lake:**

- Silver Lake
- Silver Lake Banks

**Former Oxbow Areas:**

- Former Oxbow Areas A&C
- Former Oxbow Areas J&K
- Lyman Street Area
- Newell Street Area I
- Newell Street Area II

**Other Features:**

- Allendale School Area
- Former Oxbows

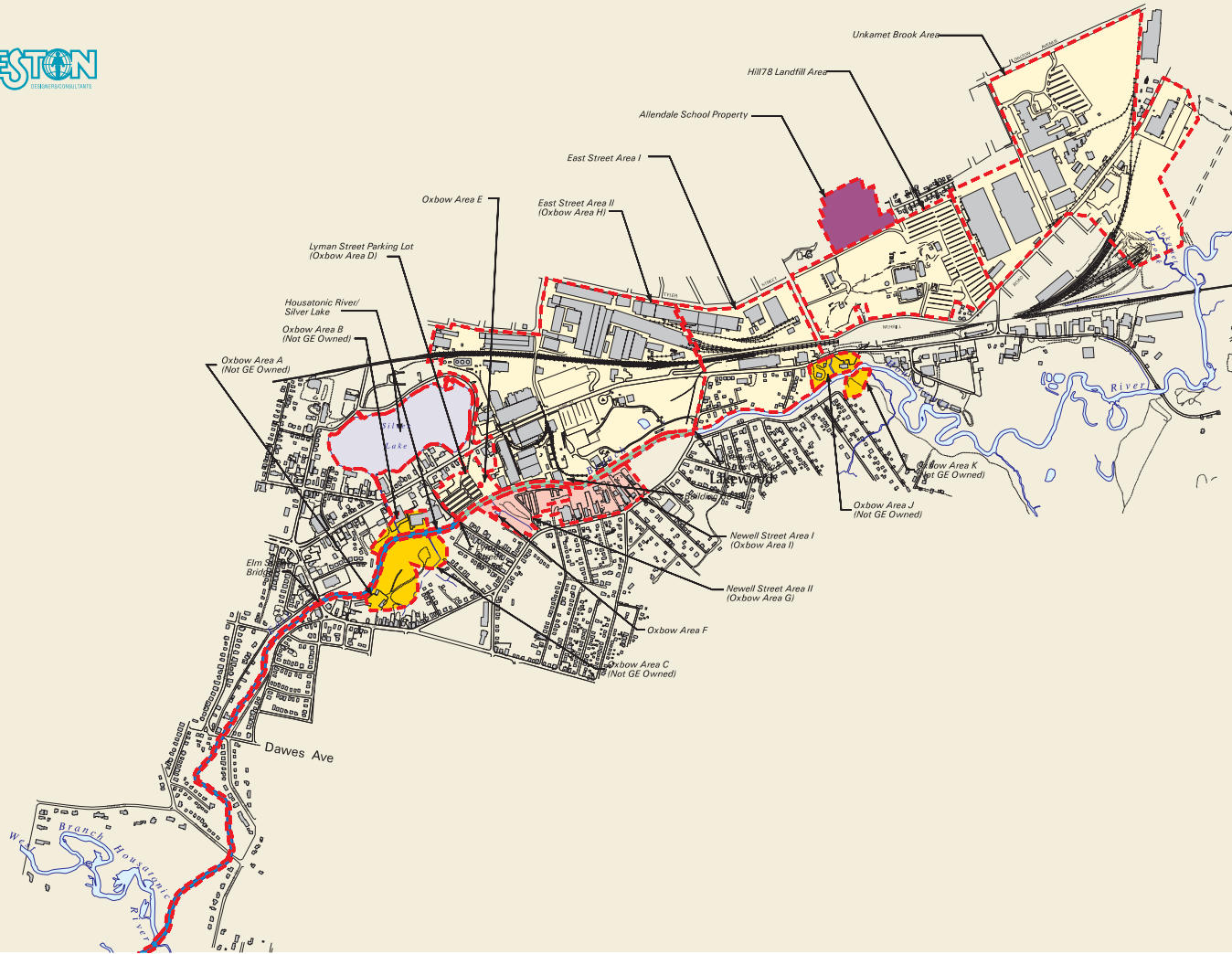
**Notes:**

1. Base features provided by General Electric Contractors.
2. Not all physical features are shown.
3. Site boundaries are approximate.
4. Map produced by Roy F. Weston, Inc.








Scale in Feet

Community Relations Plan  
 GE/Housatonic River Project  
 Pittsfield, MA

**FIGURE 2-1  
 REMOVAL ACTION AREAS**



**LEGEND**

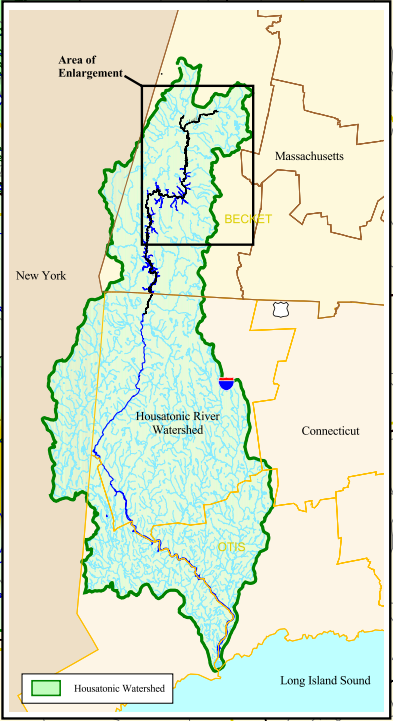
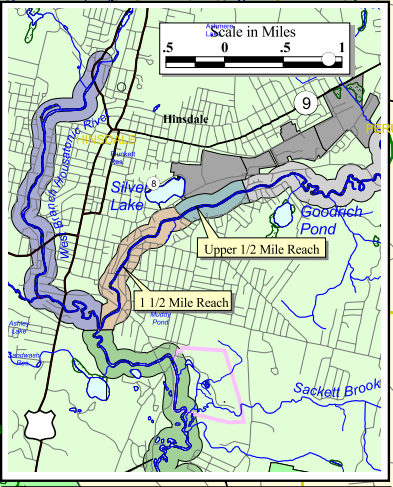
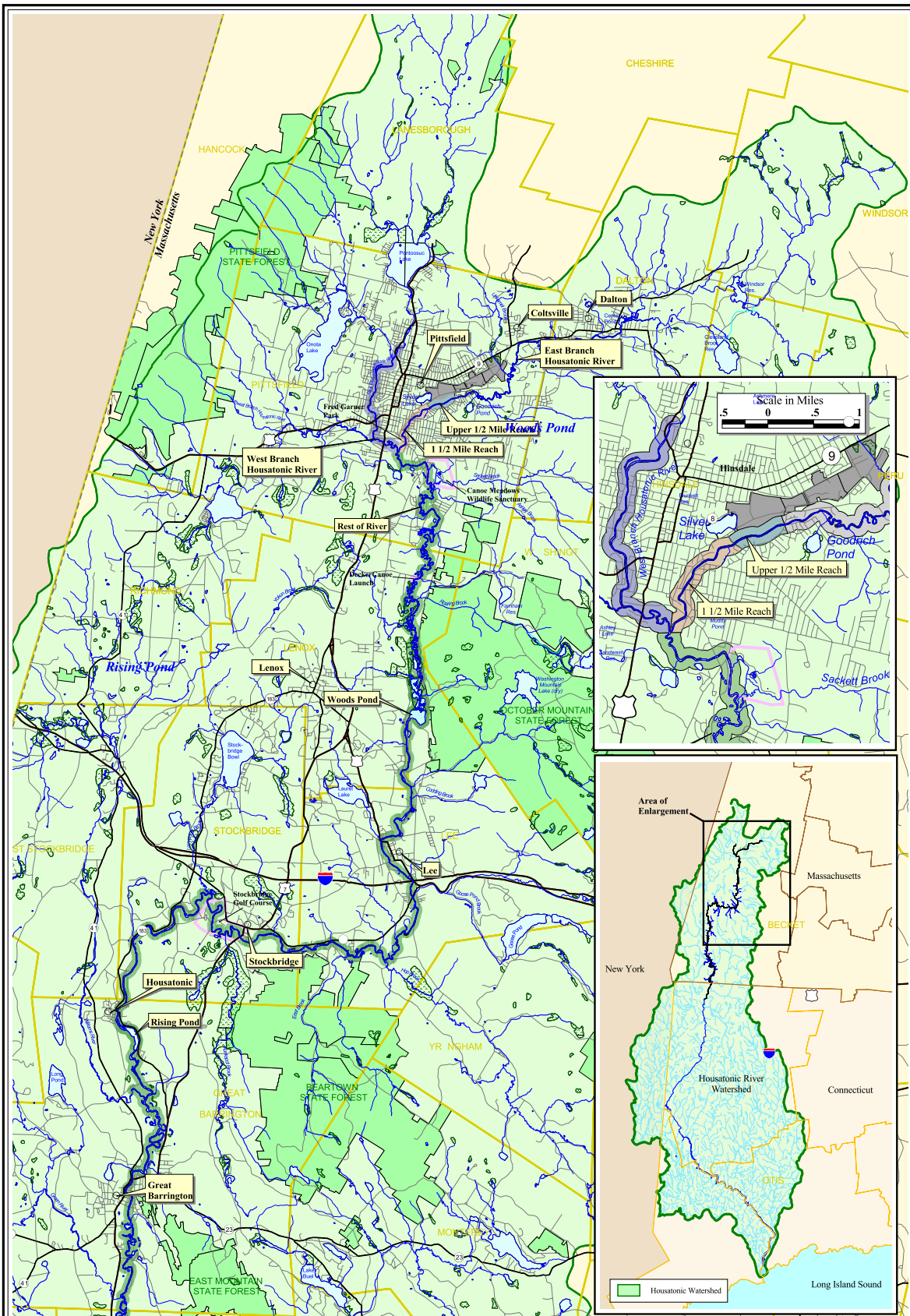
- |   |                                      |   |  |   |               |   |                          |
|---|--------------------------------------|---|--|---|---------------|---|--------------------------|
|  | GE Facility                          |  | Housatonic River<br>Upper 1/2 Mile Reach |  | Silver Lake   |  | Oxbows A, B, C, J, and K |
|  | Housatonic River<br>1-1/2 Mile Reach |  | Allendale School                         |  | Newell Street |   |                          |



Map produced by WESTON, adapted from Geographic Information System (GIS) database provided by TechLaw Inc.

Community Relations Plan  
GE/Housatonic River Project  
Pittsfield, Massachusetts

**FIGURE 2-2  
SITE LOCATION AND  
FORMER STUDY AREA DESIGNATIONS**



**Legend:**

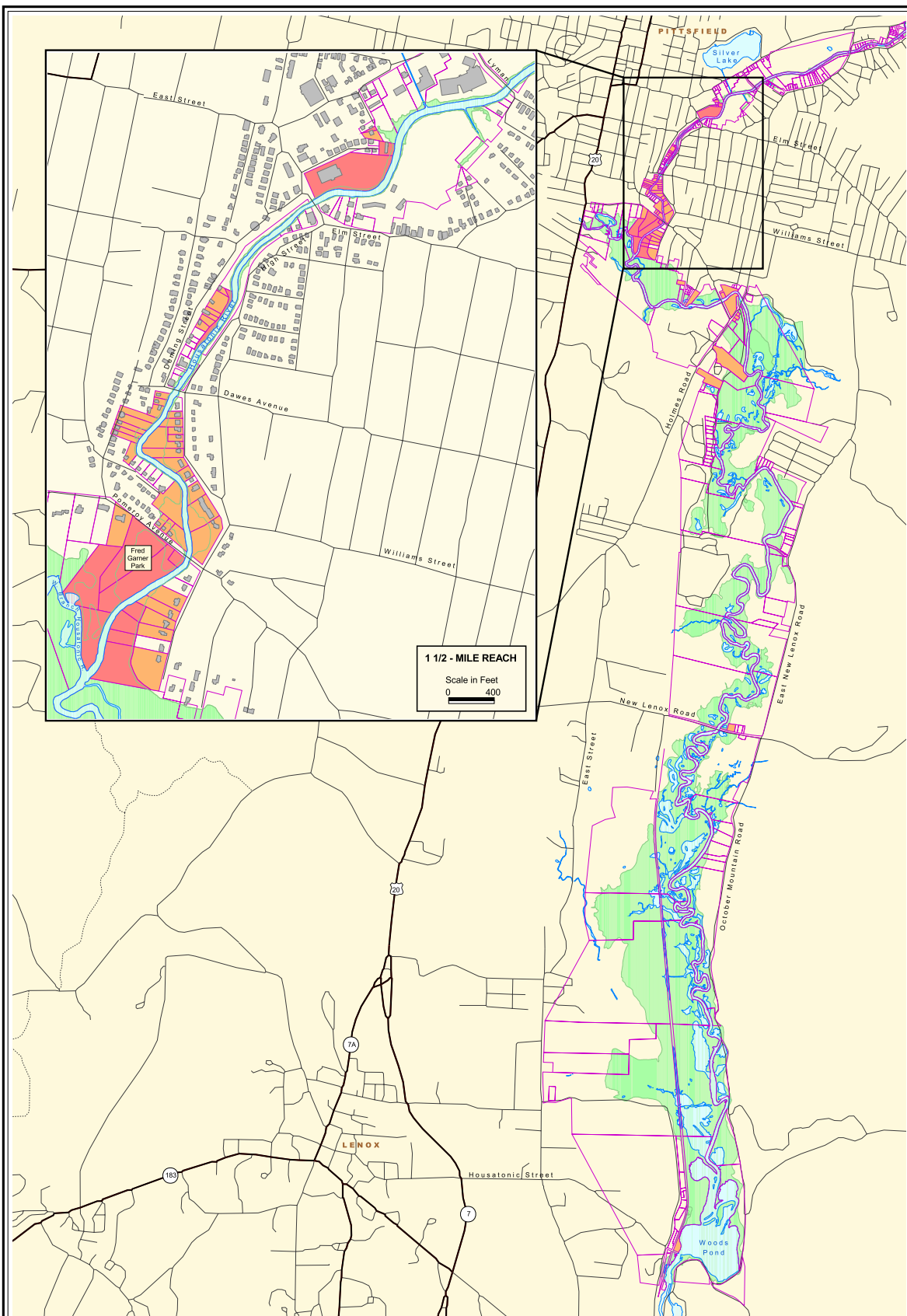
	State Routes		State Forest Lands
	Interstates/US Routes		Wetland Areas
	Surface Water		GE Facility
	Housatonic Watershed		

Scale in Miles

N








Community Relations Plan  
 GE/Housatonic River Project  
 Pittsfield, Massachusetts

**FIGURE 2-3  
 HOUSATONIC RIVER**



1 1/2 - MILE REACH  
 Scale in Feet  
 0 400

**LEGEND:**

-  Roads
-  Parcel
-  Residential Property with Actual/Potential Lawn Area
-  Non-Residential, or GE property
-  Building
-  Surface Water
-  10-year Floodplain

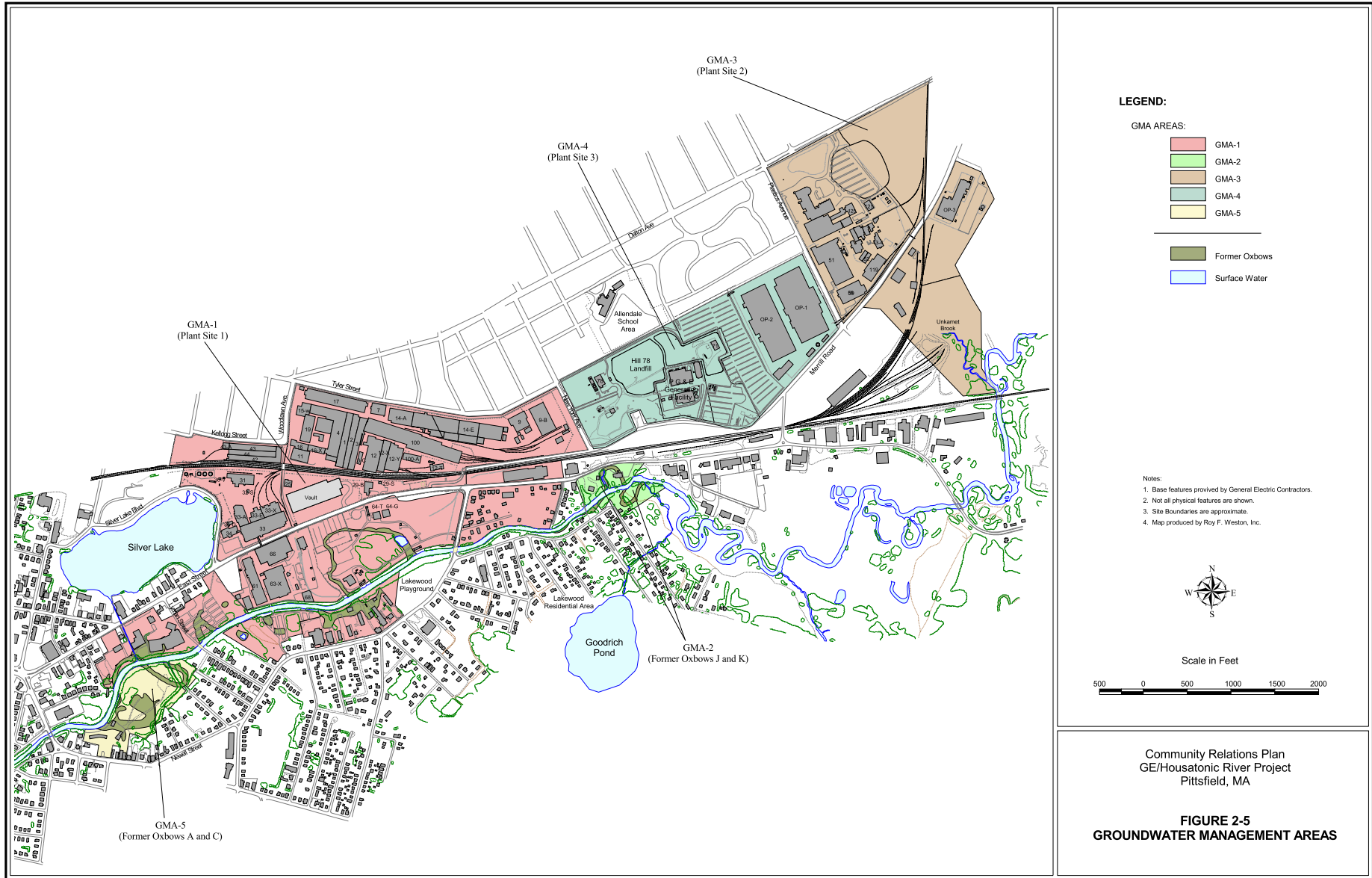
Scale in Feet

1400 0 1400 2800 4200

Community Relations Plan  
 GE/Housatonic River Project  
 Pittsfield, Massachusetts

**FIGURE 2-4  
 HOUSATONIC RIVER FLOODPLAIN  
 PROPERTIES UNDER INVESTIGATION**





### 3. COMMUNITY BACKGROUND

According to the Berkshire Regional Planning Commission, the population of Berkshire County was 134,953 residents in 2000. Of this total, 45,793 of these residents, or about 34% of the population, live in the City of Pittsfield, making it the largest city in the county. Pittsfield, located in the center of the Berkshire Hills of western Massachusetts, is the government seat of Berkshire County. According to the 2000 United States Census, the median age in Pittsfield is 40.6, and in Berkshire County, the median age is 40.5.

Pittsfield is home to several national and global industries with deep roots in Berkshire County. These companies include GL&V/Dorr-Oliver, Inc., General Dynamics Defense Systems, K-B Toys, and Berkshire Health Systems. The city is known as the "Plastics Technology Center of the Nation" because of the large number of plastics companies, including GE Plastics, located in the city and linked through the Berkshire Plastics Network. Although the total number of jobs in Pittsfield has remained relatively static over the last 20 years, there has been a significant shift in the focus of those jobs from manufacturing to the service industry.

A victim of an overall decline of manufacturing in New England and of defense spending cutbacks, the city's manufacturing base has declined over the last several decades. Despite this, Pittsfield is considered the industrial center of the Berkshires. From 1993-1995, it ranked as the fastest growing exporter in New England. Manufacturing accounted for 65% of the revenues coming into the county (*Berkshire Relocation Guide*, 1998). Today, Pittsfield has converted a former paper mill for use as a business complex, while in North Adams, the former Sprague Electric complex is the new home of the Massachusetts Museum of Contemporary Art; a computer animation firm; and media, e-commerce, and publishing businesses (*Berkshire Relocation Guide*, 1998).

Pittsfield, founded in 1761, was named after British Prime Minister William Pitt (who would later take up the American colonists' cause before the revolution). In the 1800 census, Pittsfield's 2,261-person population put it on relatively equal status to almost a dozen other communities in Massachusetts at the time, including New Marlboro (1,848), Tyringham (1,712), and Sandisfield (1,857).

Pittsfield is a medium-sized city with many of the cultural amenities found in larger cities. It is home to the Pittsfield Mets, the Class A affiliate of the New York Mets. Pittsfield is part of Berkshire County's long tradition of arts and culture. Specifically, the county boasts more than 30

**COMMUNITY BACKGROUND**

performing and visual arts organizations such as the Williamstown Theatre Festival, the Berkshire Theatre Festival, and Jacob's Pillow Dance Festival. More than a dozen museums and historic sites are located in Berkshire County, including the Pittsfield home of novelist Herman Melville, Arrowhead, where he wrote *Moby Dick*. In addition, Berkshire County is home to the Berkshire Museum; the Norman Rockwell Museum; and Chesterwood, the 1920s summer home of sculptor Daniel Chester French. Pittsfield is located approximately 20 minutes from Tanglewood, the world-renowned 526-acre summer home of the Boston Symphony Orchestra. Every year, more than two million people visit Berkshire County.

Pittsfield is home to the Berkshire Community College and the University of Massachusetts MBA program, Pittsfield Campus (*Berkshire County Relocation Guide*, 1998).

Berkshire County is well known for its recreational attractions and open space. Designated forests and parks of the Berkshires of Massachusetts form a 270,000-acre state forest and park system, one of the largest in the United States. The Berkshires include the first state park in the United States, the Mount Greylock Reservation. The two million visitors to Berkshire County each year are an essential part of Berkshire County's economy. Many of these visitors are attracted to the county's ski resorts, hiking and biking trails, and use the Housatonic River for canoeing, kayaking, sailing, and recreational fishing.

**3.1 GOVERNMENT**

The City of Pittsfield is represented by a mayor and a city council made up of 11 members. There are seven wards within the City, and each ward elects a representative to city council. In addition, four members are elected at large, representing all of Pittsfield. All members of the city council and the mayor are elected to 2-year terms. In addition, the Pittsfield City Clerk is elected to a 2-year term. Elected officials are not restricted to term limits. The last mayoral election was held in November 2001.

Berkshire County is comprised of 30 towns and 2 cities, Pittsfield and North Adams. There is a county advisory board made up of 32 members:

- Thirty members are the Chairmen of Boards of Selectmen (the governing bodies of each town within the county).
- Two members are mayors from the two cities (Pittsfield and North Adams) located within the county.

All members of the County Advisory Board hold 2-year terms, unless otherwise specified under local election rules.

## COMMUNITY BACKGROUND

### 3.2 SITE NEIGHBORHOOD

The closest residential neighborhood to the site, known as Lakewood, includes, among other streets, Longfellow, Dorchester, and Edison Avenues. Information about the residential property sampling program and the removal of contaminated fill is presented in Subsection 2.4.2.3.

### 3.3 CHRONOLOGY OF PUBLIC INVOLVEMENT

Members of the general public have been concerned about the Housatonic River and GE facility disposal sites for a number of years. Residents in the Pittsfield community and towns along the course of the Housatonic River have been concerned about the extent of contamination and the process of remediation in and around the river and the GE facility. Specifically, the Berkshire County Regional Planning Commission, the Housatonic River Watershed Association (HRWA), and the State of Connecticut have been involved in the Housatonic River investigation and assessment since PCB contamination was first discovered in the Housatonic River in the 1970s.

Figure 3-1 presents significant milestones of the GE/Housatonic River site. A chronology of events related to the GE/Housatonic River Project, including those associated with public involvement, is presented in Attachment I.

In August 1992, the Housatonic River Initiative (HRI) was formed by a consortium of individuals and organizations in Berkshire County, including representatives of elected officials, the Berkshire Natural Resources Council, the Housatonic Valley Association, and the Housatonic River Association. One of the major objectives of HRI is to ensure that information on the remedial planning process for the Housatonic River and all GE Pittsfield disposal sites is communicated to all affected communities.

MDEP (formerly known as the Massachusetts Department of Environmental Quality Engineering) has been involved in investigations and remedial cleanup at the Housatonic River site since 1981. An important part of MDEP involvement has been the planning and implementation of a variety of public involvement initiatives. These initiatives have included the preparation of a *Public Involvement Plan*, which was released in June 1990 and extensively revised in April 1995.

The *Public Involvement Plan* was developed based on input from community interviews conducted in 1990. In addition, MDEP developed a mailing list that has been used to distribute information about the site, and notify local officials and residents of major milestones and events. MDEP, with the assistance of EPA, also developed fact sheets, including

**COMMUNITY BACKGROUND**

“Residential Properties Which May Contain Contaminated Fill From GE” and has conducted a number of public meetings since 1990.

In 1991, EPA issued a RCRA Corrective Action Permit to GE which established a process and implementation schedule for environmental assessment and cleanup work at GE. Since then, EPA has assisted in a variety of negotiations aimed at reaching an appropriate cleanup settlement with GE.

A legal agreement was signed by MDEP and EPA in June 1992. This agreement provided for coordination between the agencies in relation to implementing remedial actions required of General Electric/Pittsfield in accordance with EPA’s RCRA Corrective Action Permit and MDEP’s May and June 1990 Administrative Consent Orders. A Memorandum of Understanding (MOU) was the result of an appeal of the Corrective Action Permit by MDEP. The MOU also contains provisions for the orderly resolution of any disputes that may arise between EPA and MDEP during the implementation of the permit and consent orders.

An important part of EPA’s involvement has been the development of new, and the enhancement of existing, public involvement activities. EPA activities have included the development of a variety of fact sheets, including “Human Health Risk Evaluation and Ecological Risk Assessment Regarding PCB Contamination in Pittsfield.” In addition, EPA and MDEP have issued joint fact sheets. They are “Polychlorinated Biphenyls at the Hazardous Waste Sites Associated with the General Electric Pittsfield Facility” (August 1997) and “USEPA and MDEP Environmental Update for the Berkshires: Residential Fill Properties Investigative Process” (March 1998). These fact sheets are presented in Attachment H.

EPA also conducted community interviews in July 1997 (see Subsection 3.7 for a summary of the community concerns expressed during the interviews). On December 8 and 9, 1997, focus groups were held in Pittsfield, MA, with groups of residents affected by the GE/Housatonic River Site. EPA also conducted telephone surveys during the winter of 1997 - 1998. As a result of the focus groups and telephone surveys, five major areas of concern were described by participants:

- Participants desired a published schedule of the work that would be done and when it would be done, especially work related to their residential properties.
- Participants stated that residents were concerned about property values.
- They expressed concern about PCBs, and this concern was heightened by a lack of reliable information. They desired information on the

**COMMUNITY BACKGROUND**

nature of PCBs, including health risks; how PCBs migrate in the environment; what are normal levels, as opposed to acceptable levels; and a comparison to the PCB levels found in Pittsfield.

- Survey and focus group participants wanted more personal communications, with information presented in plain English and at more regular intervals, before they read newspaper articles about the GE/Housatonic River Project.
- Participants stated that they had been waiting for someone to take charge, and they expressed a strong desire to have one agency lead the project, hold GE accountable, and make progress at the site.

On August 7, 1998, EPA held a public meeting to outline its involvement, provide information on site contamination, and provide the public with an opportunity to voice concerns about the site.

In spring 1997, the organization Citizens for PCB Removal became involved with PCB removal in the community. In winter 1998, Get REAL (Residents Environmental Action League) became active in the residential soil cleanup project.

The Housatonic Environmental Action League, Inc. (HEAL), which was founded in 1997, is a non-profit coalition of citizens and organizations dedicated to the protection of the Housatonic River watershed and corridor. HEAL acts as a government and corporate watchdog on river protection issues and is involved with the ongoing issue of long-standing PCB pollution and other toxins that contaminate the river system. As an advocate for the natural environment, HEAL identifies and responds to potential environmental crises, educates the community for greater awareness of relationships with the environment, and participates in shaping the decisions that affect the environment.

Housatonic River Restoration, a broad-based coalition of interested and concerned individuals and representatives from many organizations who use and appreciate the Housatonic River, became active in 1998. The organizations have come together to ensure maximum and ongoing public participation in the process to rehabilitate and restore the river system.

In September 1998, an Agreement in Principle was signed among GE, EPA, MDEP, Connecticut Department of Environmental Protection, MA Office of the Attorney General, CT Office of the Attorney General, U.S. Department of Justice, NOAA, U.S. Department of the Interior, MA Executive Office of Environmental Affairs, and the City of Pittsfield. As part of the Agreement in Principle, the negotiating parties asked the Massachusetts Office of Dispute Resolution (MODR) to convene a

**COMMUNITY BACKGROUND**

Citizens Coordinating Council (CCC). The CCC met for the first time on November 4, 1998, and meets monthly.

In October 1999, a Consent Decree was signed and lodged in District Court. The Consent Decree was among GE; the United States, including EPA, Department of Justice, Department of Interior and National Oceanic and Atmospheric Administration; the Commonwealth of Massachusetts, including MDEP, Executive Office of Environmental Affairs, and the Massachusetts Attorney General; and the State of Connecticut, including CTDEP and the office of the Connecticut Attorney General; the City of Pittsfield and the Pittsfield Economic Development Authority.

The following activities occurred in relation to the Consent Decree:

- A CCC meeting was held on October 26, 1999.
- EPA held office hours at the Pittsfield office on November 3 and 4, 1999, from 9 a.m.– 5 p.m. to meet with individuals and groups/organizations that wanted to learn more about the Consent Decree.
- A public information meeting on the Consent Decree was held on November 16, 1999.
- On December 2, 1999, a public hearing was held on the Consent Decree and the proposed RCRA Permit revisions.
- The original public comment period was from October 26 to December 26, 1999.
- Two separate extensions were made to the public comment period, each for 30 days, making the final end of the public comment period February 23, 2000 (120-day public comment period).

EPA enhanced public participation in relation to the Consent Decree through many additional mechanisms, including the following:

- Mailing a summary of the Consent Decree to the EPA mailing list for the site.
- Placing the Consent Decree and Statement of Work for the Removal Actions Outside the River (“Statement of Work”), as well as the Summary of the Consent Decree (“Summary of the Agreement”), on the EPA web site devoted to the site.
- Placing the Consent Decree and all appendices in the following Berkshire County and Connecticut locations:
  - Berkshire Athenaeum Public Library, Pittsfield, MA.

**COMMUNITY BACKGROUND**

- Berkshire County Chamber of Commerce, Pittsfield, MA.
  - Lenox Public Library, Lenox, MA.
  - Simon’s Rock College of Bard, Great Barrington, MA.
  - Berkshire Regional Planning Commission, Pittsfield, MA.
  - Housatonic River Initiative, Pittsfield, MA.
  - Oliver Wolcott Library, Litchfield, CT.
  - Housatonic Valley Association, Cornwall Bridge, CT.
  - Cornwall Public Library, Cornwall, CT.
  - Kent Memorial Library, Kent, CT.
- Providing to requesters individual paper copies of the Consent Decree, or paper or CD/ROM copies of the Statement of Work.
  - Hosting a Lenders Forum on January 20, 2000, for property owners who would be affected by the work at the GE facility and Housatonic River sites.

The Consent Decree, which was entered on October 27, 2000, requires continued substantial public participation in relation to the activities to be performed and the decisions to be made under the Decree, as discussed below:

- The Consent Decree requires GE to cooperate with EPA and MDEP in implementing EPA’s community relations plan for the site, in providing information regarding work plans to the public, including the CCC, and in participating in public meetings. The Consent Decree also requires all parties to the Consent Decree to coordinate and cooperate with the CCC. Additional information on the CCC is presented in Section 4, Community Involvement Techniques.
- For the Removal Actions Outside the River (as defined in the Consent Decree), GE is required by the Decree to submit to EPA for approval various work plans for the necessary pre-design investigations and the design and performance of these removal actions. EPA intends to seek CCC input on these work plans. In addition, documents submitted to EPA for approval are subject to review and comment by both EPA and MDEP, and decisions are issued after consultation with MDEP.
- With regard to the 1 ½-Mile Reach of the River, in accordance with the Consent Decree, EPA consulted with MDEP and the CCC and provided a period of public comment on its proposed removal action prior to selecting that action. EPA held a meeting with the CCC on March 1, 2000, at which it presented and explained its draft Engineering Evaluation and Cost Analysis (EE/CA) of cleanup alternatives for the 1 ½-Mile Reach. EPA continued the consultative



**COMMUNITY BACKGROUND**

process by providing a public comment period on its proposed removal action, as required by the Consent Decree.

- With regard to the Rest of the River, for which the Consent Decree does not prescribe a remedy but rather sets forth a process for selecting a remedy, the Consent Decree provides substantial opportunities for public comment and input in this process. These include: (1) EPA's provision of scopes of work for its risk assessments on the Rest of the River to be reviewed by and discussed with interested parties; (2) an opportunity for interested parties to submit comments and make an oral presentation to the peer review panels that will review EPA's risk assessments and modeling activities; and (3) public notice and an opportunity for public comment on EPA's proposed Remedial Action for the Rest of the River.

In addition to these more formal mechanisms, through the last several years, EPA and MDEP staff have been continually available to meet with the community informally.

Additional public involvement activities are described in the Project Chronology (Attachment I).

### **3.4 PUBLIC HEALTH**

The principal focus of public health concerns is potential exposure to and adverse health effects from PCB contamination. The concern centers around the Housatonic River and its floodplain. Chemicals other than PCBs may also be of concern, including volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. Soils, groundwater, sediments, surface water, and biota have been impacted and serve as potential sources of exposure to the human population, now and in the future. The populations who may be the most affected include local residents along the floodplain, children, farmers, recreational visitors (i.e., hikers, swimmers, waders), hunters and fishermen, and the commercial/industrial community.

The PCB contamination arises from several historic sources, and these sources include stormwater system discharges directly into the Housatonic River; migration of PCB contamination from soils to groundwater; contaminated groundwater discharges to surface waters; and the use of PCB-contaminated soils as fill material in the Pittsfield community (e.g., former oxbows, residential properties, and Allendale School) and related areas. Migration and redistribution of contaminated sediments within the Housatonic River have further resulted in contamination detected in the floodplain soils downstream of the site. Bioaccumulation and cycling of PCBs within the terrestrial and aquatic food chains could have a major impact on humans through consumption

**COMMUNITY BACKGROUND**

of game, turtles, ducks, fish, and other species. Also, local residents and farmers may consume vegetables, beef, and/or dairy milk raised in areas of the floodplain that have been contaminated by PCBs.

During 1997, respondents at EPA focus group sessions indicated that they were concerned about the PCB-contaminated soil. This concern was heightened by a perceived lack of reliable information. Specific topics of concern included:

- How PCBs migrate through the environment.
- How an individual is exposed to PCBs and which (if any) path of exposure (breathing, drinking, or touching) presents the greatest health risk.
- The definition of normal levels of exposure compared to what is present in Pittsfield and on individual properties.
- The health risks associated with PCB exposure.

EPA, MDEP, Massachusetts Department of Public Health (MDPH), and local citizen groups have issued a number of fact sheets highlighting citizens' concerns. Selected fact sheets are presented in Attachment H of this document. The fact sheets cover subjects such as PCB serum levels in local residents, potential risks to children and teenagers playing near the Housatonic River, fish consumption advisories, cleanup proposals and actions along the Housatonic River, information hotlines, expert panel findings, and Agency for Toxic Substances and Disease Registry (ATSDR) public health assessments. MDPH has instituted several programs including evaluation of cancer incidence in the Housatonic River area, studies of the association of PCBs with local breast cancer incidence, potential extensions of the occupational health studies of workers at the GE facility, and public health education outreach programs.

Focus group respondents and individuals attending a 1997 public meeting were particularly concerned about the effects that PCBs would have on their children. Individuals expressed concern about the reliability of soil tests and the proposed cleanup initiative that would result in the excavation and removal of the contaminated soils.

The community's concern about health issues has also focused on PCB contamination in the Housatonic River. In 1982, a fish consumption advisory was issued for nearly 100 miles of the Housatonic River downstream from the Pittsfield site. This fish advisory resulted in the posting of signs warning people not to eat fish, frogs, and turtles caught in the Housatonic River. These signs read: "Warning - Housatonic River Fish Contaminated with PCBs; Do Not Eat Fish." Additional signs were posted around Silver Lake in 1994. The signs posted have the following

## COMMUNITY BACKGROUND

language: "Warning: No Trespassing; PCBs Present in Silver Lake at Concentrations that May Be Harmful to Humans."

### 3.5 ENVIRONMENTAL AND BUSINESS CONCERNS: GE'S IMPACT ON THE PITTSFIELD AREA

GE is an important part of Pittsfield's history. From 1902 to the mid-1980s, the GE facility in Pittsfield housed several divisions. At its peak of operations during World War II, approximately 13,000 people worked at GE. Even as late as the early 1980s, 8,000 jobs still remained in Pittsfield. Today, GE Plastics is the only division remaining in Pittsfield. Several hundred employees work in this field. With the loss of jobs at GE, came a slow economic decline that is still evident in Pittsfield today. As a result, there is a general concern in the community about the fate of the 254-acre GE facility and the promotion of Pittsfield's economic redevelopment. According to newspaper articles and editorials, many business leaders and residents hope to see an expeditious cleanup process in at least some portions of the site in order to pave the way for redevelopment. The 1997 layoff of 650 workers from the Pittsfield General Dynamics plant intensified the community's concern about initiating a cleanup process that will facilitate economic growth while protecting public health. For many residents, the prospect of mounting unemployment, coupled with the stigma of widespread contamination, has created a need to initiate a cleanup process that will protect public health while minimizing the damage to Pittsfield's reputation as a desirable place to live and work.

Tourism is also an important economic concern. Tourism is Berkshire County's largest industry, and some newspaper articles suggest that the industry may be affected by the "stigma" of a river that contains some of the highest concentrations of PCBs found anywhere in the United States.

Property values are another important economic concern, particularly for those individuals living near the GE facility. During EPA's focus group, many respondents expressed concern over the long- and short-term effects that the PCB contamination would have on their ability to sell their homes. For many, cleanup within the residential communities close to the GE facility is a priority, and these individuals are anxious to receive information on the effect properties contaminated with PCBs will have on the value of nearby properties and surrounding neighborhood properties.

### 3.6 TRUST AND COMMUNICATION

Trust and communication were common themes expressed during the 1997 focus group, at a 1997 public hearing, and in numerous newspaper editorials. Many Pittsfield residents are skeptical about the degree to which they can trust GE to conduct the cleanup and government agencies to supervise the cleanup. Many residents believe that they have not been

**COMMUNITY BACKGROUND**

provided adequate information and that they often do not know the source of the information and whether it is reliable. Focus group attendees voiced concern that information was not equitably distributed. Some residents received information while others did not. In addition, respondents were concerned about the reliability of the information they were receiving. This problem was compounded by the fact that the respondents did not fully understand the difference between MDEP and EPA. Some residents stated that they wanted to communicate with individuals and agencies they can trust and that this trust had not been established.

**3.7 SUMMARY OF COMMUNITY INTERVIEWS**

EPA conducted community interviews on July 24, 28, and 31, and August 7, 1997, in Pittsfield, Massachusetts. Twenty-one individuals participated in the interviews. The interviewees included local public officials, homeowners with contaminated properties, business owners with contaminated commercial properties, residents living in neighborhoods with contaminants in the soil and river, a local public health professional, and environmental group members. The opinions of these interviewees did not necessarily reflect the opinions of all of the residents affected by the GE site contamination.

**3.7.1 Description of Community Interviews**

EPA asked 13 questions of the 21 interview participants. EPA informed each interviewee that the purpose of the community interviews was to identify community attitudes and concerns regarding the GE/Housatonic River Site. The information from the community interviews was used in developing this Community Relations Plan and EPA's communications program.

EPA explained to the interviewees that their responses would remain confidential in the Community Relations Plan. The interview responses and subsequent analyses were used to determine the issues important to the community and to identify effective outreach techniques. The interview questions were also designed to assess the extent and depth of the community's knowledge about the GE/Housatonic River Site.

EPA noted the age and the length of time an interview participant had lived in the Pittsfield area. Generally, most of the interviewees were in their 40s and had lived in Pittsfield all of their lives. Most of the interviewees had been aware of/concerned about the GE contamination site for more than 10 years. Nineteen of the 21 interviewees said they were "familiar" or "somewhat familiar" with the wastes GE has created and why the wastes are a problem.

## COMMUNITY BACKGROUND

The following sections present the opinions expressed by the interviewees.

### 3.7.2 Overview of Key Community Concerns

Overall, the community was greatly concerned about the GE/Housatonic River Site and the future of the City of Pittsfield. Persons interviewed identified the following primary areas of concern most frequently during the interviews:

a) Health issues	16
b) Allendale School	12
c) Negative perceptions about GE	12
d) Protection/restoration of the local environment	9
e) Commercial and residential contamination/depressed real estate values	8
f) Economy of Pittsfield	8
g) Cleanup activities and decisions	5
h) Other sources of contamination	2
i) GE facility	1
j) GE employees health study	1

#### 3.7.2.1 Health

Sixteen interviewees expressed health issues as a concern. Several interviewees stated that the community has the highest cancer rate in Massachusetts and that PCBs were the suspected cause of cancer in area residents. Several individuals noted a high rate of breast cancer in the area. Other interviewees noted a high death rate from cancer and identified family members, friends, and colleagues who had died of cancer.

Several interviewees referred to fear of past, current, and future health problems in the community. Interviewees mentioned fear of eating contaminated vegetables grown in home gardens in which the soil was contaminated with PCBs; fear of developing cancer; fear about the long-term and animal/food chain-related health issues; and fear for the health of the children as they played in their yards and the Allendale School yard and ate home-grown vegetables. One man explained that his wife died of a liver ailment that he suspected could have been caused by PCBs. Another man believed his daughter's skin disease might have been related to PCBs. One interviewee noted that the information in health and ecological studies was difficult to quantify.

Several interviewees mentioned that there was a lot of unwarranted fear. One interviewee said there was hearsay regarding the large number of

**COMMUNITY BACKGROUND**

cancers in the community; however, there had been no study (research) related to the health issues. Another individual mentioned that people had heard a lot of things about illnesses and made assumptions. One person stated that it was unknown exactly what might or might not have caused the health problems of the residents.

Other interviewees offered their impressions related to the PCB contamination. One person remarked that people thought that if they had PCB contamination on their property, it would make them ill. Another interviewee said people who were house hunting were avoiding the Lakewood neighborhood. The interviewee continued by saying that there was a mentality that people could not sell their homes and that their kids would die from PCB exposure. Another interviewee was concerned that at the small businesses located on contaminated oxbows, employees were sitting outside and eating their lunches and taking coffee breaks on contaminated soil.

Interviewees commented on the Massachusetts Department of Public Health's blood studies. One interviewee said it was unfair for people to have to pay for their blood tests in order to participate in the health study, and when they complained, the Commonwealth did not respond. In addition, the interviewee said people learned from the blood studies that they might have been exposed to PCBs, but they did not know what PCB concentration was safe or acceptable.

**3.7.2.2 Allendale Elementary School**

Twelve interview participants spoke about their concerns regarding Allendale School. One interviewee said that the best solution to the Allendale School problem would be to remove the entire cap. This individual was concerned about exposure during school renovations. A second interviewee was concerned about the remediation activities at the school. The interviewee desired answers to two questions: "What happens to Allendale School when they begin digging for the new addition and children are playing near the excavation? What happens when trucks drive through the neighborhoods?"

**3.7.2.3 General Electric Company**

Although 12 interviewees stated that they were treated poorly by GE, generally interviewees provided both positive and negative opinions of GE. A few interviewees stated that they believed that GE had mistreated its employees. Another person said that local citizens were not speaking up because GE "still has their pensions." Another interviewee believed that GE was spending lots of money and was trying to be responsible.

**COMMUNITY BACKGROUND**

Homeowners and business owners with contaminated properties generally had negative opinions about GE. An affected business owner said GE purchased about five properties during the summer of 1997. The appraisal on his business was low. He believed he was being treated poorly by GE. His property had been fenced in by GE and he was losing business.

Another business owner discussed his feeling of discouragement. The business owner added that he believed that GE had fenced “half of Pittsfield’s businesses and homes.” GE sued him to gain access to 9 feet of his property along the river. The business owner said that his business was hurting and that each brownfields newspaper article created the impression that he was going out of business and, as a result, his customers went elsewhere.

One interviewee said people wondered why GE was willing to buy their properties. They were concerned that if GE bought the properties, the company would not have to meet the residential cleanup levels and restrictions.

Some interviewees stated their displeasure with GE. They talked about how representatives of the company had treated the residents of Pittsfield. The following comments present the negative attitudes of some interviewees:

- GE is getting away with murder. All the company does is put up fences and signs that say do not eat the fish, do not eat the turtles.
- GE got what it needed from Pittsfield – “we gave everything and now look... people are being cheated and taken advantage of.”
- People do not trust bioremediation. GE is looking for the cheap way out.
- Three people said GE cannot be trusted.
- GE abandoned and badly served the town.
- GE is beating the regulatory agencies on getting its message to the public – agencies could write a letter to the newspaper editor each week to counter GE’s editorials.

The following comments present the positive statements of some interviewees:

- The most recently discovered contaminated residential properties should be cleaned up by GE, which the interviewee understands the

## COMMUNITY BACKGROUND

company is willing to do. GE is spending lots of money and is trying more than ever.

- Interviewee credited GE with participating in a fair negotiation during the purchase of his house.
- GE is doing more than ever for the town, and the interviewee wonders if it is the beginning of a new era.
- EPA and GE seem to be working better together in the past few years.

### **3.7.2.4 Concerns for the Environment**

Nine interviewees spoke about their concerns for the environment and the need to protect, preserve, and restore the surrounding area. One interviewee said that the river was a lost natural asset. The interviewee added that people were still eating contaminated fish, and sportsmen were still hunting and eating waterfowl and deer. Another interviewee said that the environmental agency posted warning signs, but children still wanted to go fishing and walking along the river, and teenagers wanted to gather along the riverbank.

One individual was concerned about the natural resource damage and viewed Superfund as a revenue source to continue protecting land and to help the county in a transition from a post-industrial community to a community focused on recreation and the natural environment. For example, resources could be used to purchase river frontage and old industrial properties and convert these areas to recreational uses.

One interviewee noted that lots of temporary solutions had occurred that people might think were permanent solutions. The interviewee added that people could misunderstand the temporary from the final solutions.

An interviewee asked what it would take to turn the area between Woods Pond and the first bridge “into a place of glory”? Another said that the river and lakes were for people, animals, and nature, not for industrial waste. The interviewee added that people appreciated the environment, and there was no need to pit jobs against the environment.

Another interviewee was not pleased with the amount of testing that had to take place and asked, “How many tests have to be done?” The interviewee added that the tests were all positive, “so start cleaning.”

### **3.7.2.5 City of Pittsfield**

Eight interviewees voiced concern about the local economy and the future of the City of Pittsfield. One person said the future of the city was



## COMMUNITY BACKGROUND

one of the top ten issues in the community and people were finally developing a sense that “things are happening” to address this issue. Another person said there were financial concerns about being able to bring new businesses to town. Along that same line, an interviewee said Pittsfield let GE manipulate the workforce and squelch other businesses from coming into the community.

One person said that the economic center of town had been destroyed and they could not revitalize it because of the pollution. The same person added that the empty buildings did not induce new businesses to locate to the area, and about a third of the population had moved elsewhere. Another person noted that “people once stayed in the community to work, buy a house, and raise a family; now the young folks are leaving the community.”

Interview participants described their concerns for the City of Pittsfield. One stated that Pittsfield has experienced a downward economic spiral and an increase in crime. GE left the facility in a dreadful and unusable state. There was the impact of losing 8,500 jobs in 4 to 5 years. GE left town, which was, to some extent, due to the changing nature of the transformer business.

Another participant stated that there was a cloud hanging over Pittsfield. There was a lot of fear in the community. A number of people believed that the contaminated soil was not being fenced in or covered. This participant said, “people are reluctant to participate in the annual river cleanup – even in other branches of the river. The Housatonic River will always have a reputation for being an open sewer.” There was a prime industrial property that could not be used – instead it was fenced off and developers were forced to go elsewhere in the community to develop. There was some fear that residential and industrial zoning would overlap and that jobs would become more important than the residential neighborhoods.

**3.7.2.6*****Residential and Commercial Contamination/Depressed Real Estate Values***

Seven interviewees discussed their concern about the residential and commercial contamination. Interviewees stated specific personal concerns regarding contamination on residential and commercial properties. The comments regarding residential concerns focused on elderly people who did not want to move from their homes. The elderly had been living in their neighborhoods for a long time and wanted to continue to live there. One couple that still lived on contaminated property was frustrated about residences being fenced so that others could not move into the neighborhood. An interviewee said that residents need to be involved in the discussions about the residential cleanups. Another interviewee

**COMMUNITY BACKGROUND**

voiced a concern that the number of people affected by contaminated fill would increase.

One man said he was concerned about the contaminated residences and that the residents' livelihoods and investments were threatened. He was concerned about the attitude this created, that people would say, "GE's been dumping here and even if I wanted to sell, I can't." On the other hand, one interviewee said the people who live in the neighborhood were the same people who had worked at GE and had done the dumping. Another interviewee said his concerns focused on the most recently discovered contaminated residential properties and that the homes should have been cleaned up by GE, which he understood the company was willing to do.

One resident said he had to move out of his first home, one that he and his wife had put a lot of work into making "a home." After PCBs were discovered in the basement of the house, the couple had to move. When the couple relocated, they remained in the neighborhood, but the husband said his second home was not as special as the first one. Another man said he was upset that he was using his retirement funds on lawyers' fees. A woman said she had to buy flood insurance because her home had been designated as being located in a floodplain. She said the insurance policy included specific restrictions on what she could do with her property. She added that it was ironic that the only flood occurred when the dam broke and carried the PCBs onto the floodplain properties.

Several businessmen explained their situation in owning contaminated property. One man said he was denied a loan for the roof of the building for his business; he could not sell the business; he could not build; he could not receive an abatement; and he was unable to use the property for collateral.

Another businessman said he was unable to expand his business because of the contamination – the banks would not give him a loan. He had been trying to negotiate with GE since the early 1990s. Because GE bought a few businesses on Newell Street, he thought GE could buy his business; however, GE was not interested. Then the statute of limitations ended. It took 7 months for him to receive an appraisal on his business versus the 2-week wait for residential properties. GE purchased about five properties during the summer of 1997. When his business was appraised, it was a low appraisal.

Another businessman said he had worked for 40 years to build his business, and now he had nothing because of the contamination. He had nothing to give to his son and grandson, and they did not want the business because of the contamination.

### 3.7.2.7 **Superfund Designation**

Fifteen interviewees stated when and how they had heard of the Superfund designation. The majority of interviewees learned of Superfund through the news media. Two interviewees expressed concern that they did not have enough information about the designation and its implications. Another interviewee mentioned that the community needed to better understand the meaning of Superfund.

Several interviewees mentioned past or current newspaper stories that referred to the Superfund designation. One interviewee had viewed stories about Superfund sites on national television. Another interviewee mentioned the media in general in reference to Superfund knowledge. Two had worked at or lived near other Superfund sites. Another was familiar with the Love Canal site. One individual learned of the Superfund designation in school and through environmental studies.

Eight interviewees had concerns about the site being listed as a Superfund site. The majority of these persons identified economic issues with regard to Superfund designation. The stigma of becoming a Superfund site and its negative effect on business was mentioned by several interviewees. Another person said that the community was still coming to terms with the problem and a formal designation would mean, "Oh, it is really, really bad."

Several persons expressed concern that GE and the government cooperate so that the company would continue its presence and efforts in the city. One person noted that there were still good jobs in Pittsfield and stated that EPA could be held accountable if those jobs left Pittsfield because of a Superfund designation. Another interviewee mentioned that there would be no momentum or progress on the projects that GE was willing to do for the city if the city became tied up in court with the company over a Superfund designation.

Several persons mentioned the Brownfields Development Plan as an alternative to Superfund designation. One interviewee said that a recent poll indicated support for brownfields development. Two other individuals mentioned the Larkin Brownfields proposal. This proposal, which was introduced by State Representative Peter Larkin, recommended designating only the Housatonic River as a Superfund site, with the GE portion of the site remaining under the RCRA permit for the cleanup and subsequent Brownfields redevelopment.

Eleven interviewees said they did not have concerns about the Superfund designation. Several interviewees said that Superfund would be a "hammer" to make GE negotiate or force GE to do the cleanup.

**COMMUNITY BACKGROUND**

Several interviewees said Superfund listing would be beneficial because then actions would have to be taken to address the contamination. An interviewee said the Commonwealth was not involved enough to know what was going on and to force GE to take action. The same interviewee said that the Army Corps of Engineers should clean up the site. Another interviewee said the city had not been a real watchdog about pollution. Another interviewee said that listing the site would assist in testing all of the potentially contaminated areas.

Five of the “no concerns” responders noted that there could be a downside to listing the site under Superfund. One interviewee said that Superfund was seen as the best chance for a real cleanup, but it was a slow process. Another interviewee said a negotiated settlement would be preferable to EPA suing GE for damages. That interviewee added that it would be appropriate to proceed with the listing and that Superfund would mean more staff and resources dedicated to the site. An interviewee said Superfund would not be needed if the proposed brownfields plan were to succeed. That interviewee added that if the brownfields plan failed, the site should be listed and the move to Superfund should be made quickly if GE would not negotiate. Another interviewee said that Superfund was a frustrating process because it would require more testing. That interviewee added that Superfund listing would be welcomed if residents were told that their property would be cleaned up right away.

**3.7.2.8 Government Relations with the Public**

Two interviewees said they had favorable feelings about how the government had interacted with them concerning the contamination. Eight interviewees had negative feelings. Ten interviewees had mixed feelings about their interactions with the government. Generally, interviewees were concerned about communication with all three levels of government (federal, state, and local).

- **Government In General**

An interviewee said cooperation among all three levels of government (federal, state, and city) was critical and that the governmental agencies were doing their best. Another interviewee said that to the government’s credit, the agencies kept listening and opened channels of communication and held one-on-one meetings.

One interviewee said that government efforts relieved panic and paranoia about PCBs.

An interviewee said more emphasis should be placed on how government deals with the community. That interviewee added that

**COMMUNITY BACKGROUND**

sharing the experiences of other communities, especially positive experiences, is important. The interviewee continued by saying, "Pittsfield is parochial and there is a prevalent perspective that the things that happen in Pittsfield or to Pittsfield only happen here." The interviewee added, "It's important to show that Pittsfield is not the only community with this problem. It is important for agency staff to connect with people, treat them with respect, and not patronize or speak too technically. If the staff don't connect with people, they won't be trusted." One interviewee pointed out that homeowners were told to call the government, instead of the government contacting the homeowners.

Another interviewee said it took too long for the agencies to complete reports. The interviewee wanted the information explained in plain English instead of in 100-page reports that were too technical.

- **Federal Government**

One interviewee said that they believed EPA and MDEP were working together. That interviewee added that teamwork is encouraging because it was unusual for such an effort to last for 4 to 5 years. The interviewee added that the government staff members were available and the government had great resources. On the other hand, another interviewee said that federal and state governments and GE had made a boondoggle of the entire situation. That interviewee also stated that if things were so bad, why were residents still living in the middle of contamination a year later?

One interviewee said that the federal and state governments were at fault because they were not applying pressure on GE. The interviewee said that GE was doing the RCRA activities exactly as they were told to do them.

One interviewee had not had contact with the Commonwealth and EPA until 1995. The interviewee said the staffs were not doing their homework. The interviewee wanted to know when meetings were scheduled before they occurred. The interviewee was concerned that GE was doing the sampling, but there was not any EPA and MDEP sampling data to compare with the GE data.

Another interviewee emphasized that EPA and MDEP should meet with the Pittsfield city council before meeting with the environmental community and public.

## COMMUNITY BACKGROUND

- **State Government**

An interviewee said that MDEP had been somewhat helpful and that the government was needed to force GE to clean up the contamination.

One interviewee said MDEP was good at the technical work, but not as good at developing relationships with people. The interviewee felt that there was a high turnover of staff and that residents had to keep pushing the agencies to do any testing.

Another interviewee said there was no link between MDEP and the Pittsfield Health Department.

An interviewee said that MDEP and GE were making decisions about their properties and that homeowners had no one to turn to. The interviewee asked what rights the people had if they were not satisfied with the MDEP/GE activities?

One interviewee said that some residents did not call MDEP about their properties because they did not perceive that MDEP would take action.

One interviewee did not like it when the MDEP and/or the GE environmental personnel showed up unexpectedly. The interviewee would appreciate advance notification of testing/sampling by letter so the interviewee would know who and when someone would visit their property.

- **Local Government**

One interviewee said that the city was not responsive to this issue.

An interviewee said that people were frustrated with the Pittsfield Health Department. They believed they were receiving the run-around. The interviewee added that people were not going to trust what was going on because they were not receiving information.

### 3.7.2.9

#### ***Most Effective Methods of Communication***

The interviewees were asked what methods of communication were the most effective for providing information and explaining the issues. The interviewees answered in the following manner:

## COMMUNITY BACKGROUND

**What methods of communication are most effective for you?  
for the community? (public meetings, workshops, press  
releases, fact sheets, neighborhood meetings, newsletters)**

a) Press releases (radio, television, newspapers)	10
b) Public meetings	8
c) Newsletters	6
d) Toll-free telephone number/contact	4
e) Fact sheets	2
f) No response	2
g) Workshops	1
h) Neighborhood meetings	1
i) Local radio programs	1

The interviewees commented on improving the dialogue between the government and the community by making these statements.

- It is important to have the regulatory agency staff make presentations to the public.
- Present straight facts, no political spin. Fact sheets about PCBs, capping, and sampling results information would be helpful.
- EPA/MDEP could develop a good mailing list, attend community meetings, and talk to the city council.
- The public needs the impacts, options, and risks explained. There is an issue about transporting and disposing of contaminated soil in a facility not located in Pittsfield versus a local facility. There is not enough participation from the other affected towns. Environmental groups could help with community outreach.
- Make the cleanup information user-friendly to people who are attending the meetings, keep the news lively, show concern about the hot spot cleanup, show concern and clean up people's backyards, and announce both the discovery of contamination and cleanup activities.
- Write the newsletters in layman's terms. A toll-free number should be maintained so that residents could save on their long-distance phone calls. Mail information that better explains what is being done and who to call with questions. The tests are too slow; speed things up.
- Personal contact and progress reports are important.
- Press releases are efficient but not entirely effective. It would be useful and informational to hold workshops with city councilors to educate them about the site. The community sees public meetings as target practice, and no one uses the information repositories.

**COMMUNITY BACKGROUND**

- An explanation is needed about what Superfund means. A public meeting should be held every 3 months. At a minimum, the people should receive information on a monthly basis, especially for the people who do not attend the meetings. People are hearing from GE all the time and not from the government.
- Receiving information through the mail is not as useful as the public meetings. The information repositories are not really used.
- Press releases, although less informative, reach more people. Public hearings are not well attended, yet they are a good place to provide a lot of information.
- Hold public meetings outside of City Hall.
- Repetition and consistency are important.

**3.8 CONCLUSION AND KEY ELEMENTS OF COMMUNITY INVOLVEMENT AT THE SITE**

Community involvement objectives and activities have been developed to encourage public participation during upcoming activities at the site. The community involvement program is intended to ensure that residents and interested officials are informed about activities occurring at the GE facility and site and that they have an opportunity to provide input during the investigation and cleanup process.

The following subsections summarize information about various community relations objectives and activities for the GE/Housatonic River Site.

**3.8.1 Provide the Community with Information about the Site**

Residents along the river and local officials in Berkshire County and affected Connecticut communities along the river are receptive to receiving periodic updates on site activities and on the cleanup process. EPA and MDEP will continue to provide residents and officials with clear and understandable information about the ongoing activities and potential risks associated with the site. That information will be presented in the form of newsletters and fact sheets that reflect the community's need for updated information. The community also meets with regulators at public meetings and monthly CCC meetings.



## COMMUNITY BACKGROUND

**3.8.2 Educate the Community about the Investigation and Cleanup Process**

Focus group respondents stated that they are receptive to the role of EPA in resolving problems at the GE site. As information regarding investigations becomes available, EPA and MDEP will provide the public with the results of the investigations in a clear and understandable manner. As the cleanup process moves forward and new projects are developed, the community will be provided easy-to-understand information that reflects the goals and steps of the cleanup strategy.

**3.8.3 Maintain a Communication Link with Residents and Officials**

A Community Involvement Coordinator for the site has been designated by EPA as a contact person (see Attachment A.1, Key Contacts). Access to a contact person reduces the frustration that may accompany attempts to obtain information and communicate with the several agencies and organizations involved in the cleanup.

**3.8.4 Evaluate the Effectiveness of the Community Involvement Program**

As the cleanup process progresses, EPA and MDEP will evaluate the effectiveness of the community involvement activities in providing information to residents and encouraging citizen participation.

# SIGNIFICANT MILESTONES: GE Housatonic River Site

<p><b>1952</b> PCB-contaminated oil is discovered on East Street residential property.</p>	<p><b>1968</b> Collapse of storage tank at Building 68 releases PCB oil into Housatonic River.</p>	<p><b>1972</b> A thermal oxidizer is constructed to destroy PCB-containing liquids.</p>	<p><b>1977</b> The GE Pittsfield facility discontinues PCB use in the manufacture of transformers.</p>	<p><b>1981</b> PCBs and other contaminants in the Housatonic River, Silver Lake, Unkameet Brook, and at the GE facility are evaluated under two administrative consent orders executed by MDEP. GE is required to propose a sampling and monitoring program for contamination and disposal practices at the facility.</p>	<p><b>1982</b> The first extensive investigation of the Housatonic River's sediments is documented in the Stewart Report. Signs warning against consumption of fish, frogs, and turtles are posted along the river.</p>	<p><b>1989</b> MDEP requires GE to replace existing Woods Pond Dam to ensure that downstream migration of PCB-contaminated sediment will not occur as a result of dam failure.</p>	<p><b>1990</b> June: MDEP establishes GE sites as Public Involvement Plan sites under the Massachusetts Contingency Plan, thereby establishing a formal plan for the public to be informed of and involved in response actions.</p>	<p><b>1991</b> October: GE constructs wastewater treatment facilities to improve the quality of the groundwater and stormwater at the GE facility before its discharge to the Housatonic River.</p>	<p><b>1991</b> Summer: Hill 78 Landfill is capped to prevent stormwater infiltration. The cap is inspected semi-annually. In addition, perimeter wells are installed. They are monitored to track leachate migration.</p>	<p><b>1997</b> September: GE Housatonic Site is proposed for EPA's National Priorities (Superfund) List. Negotiations begin among GE, state and federal government agencies, and the City of Pittsfield.</p>	<p><b>1998</b> After a year of mediated negotiations, an Agreement in Principle is agreed among GE, EPA, MDEP, CTDEP, MA Office of the Attorney General, U.S. DOJ, NOAA, U.S. DOI, MA Executive Office of Environmental Affairs, the City of Pittsfield, and the Pittsfield Economic Development Authority. The Agreement in Principle formalized the agreement and provided the framework for the Consent Decree.</p>	<p><b>1999</b> August: EPA's sampling shows highly elevated concentrations of PCBs in duck breast and liver tissue. The MA Department of Public Health issues a public health advisory for consumption of mallards and wood ducks in the Housatonic River from Pittsfield to Great Barrington (Pising Pond).</p>	<p><b>1999</b> Summer: Attleboro School property cap and 41,000 cubic yards of contaminated subsurface soils are removed. Playground facilities are restored and enhanced in the fall 1999.</p>	<p><b>1999/2000</b> October 1999: A Consent Decree among GE, EPA, MDEP, CTDEP, MA Office of the Attorney General, U.S. DOJ, NOAA, U.S. DOI, MA Executive Office of Environmental Affairs, City of Pittsfield, and the Pittsfield Economic Development Authority is signed and lodged in District Court. The Consent Decree regulates the investigation, cleanup, compensation, and natural resources restoration. October 2000: Federal judge gives final court approval to Consent Decree that presents cleanup plan for the site.</p>	<p><b>2000</b> Revised Administrative Consent Order (ACO) executed by MDEP and consented to by GE on November 13, 2000. Revised ACO supersedes two 1990 ACOs between MDEP and GE and provides for continued assessment of remediation of off-site properties contaminated with fill from the GE Pittsfield facility (including East Street Area 1-South) and includes a streamlined process for the residential fill properties.</p>
--	--	---	--	---	---	--	---	---	---	--	--	--	---	---	--

## Environmental and Regulatory Activities at the Site

<p><b>1952 to 1999</b> GE conducts a series of environmental investigations at the facility and implements remedial actions including the installation of oil recovery trenches, caissons, containment barriers, oil/water separators, and oil recovery wells.</p>	<p><b>August 1980 to June 1981</b> Contaminated sludge is removed from former waste stabilization basin at Unkameet Brook. The basin is filled and capped.</p>	<p><b>May/June 1990</b> MDEP executes two Administrative Consent Orders with GE to evaluate the nature and extent of contamination in the Housatonic River, Newell Street I, East Street Area I, East Street Area II, Hill 78 Landfill, the GE facility, and related sites, in order to evaluate and select remedial alternatives.</p>	<p><b>December 1995 to July 1996</b> The thermal oxidizer is closed.</p>
<p><b>1991 to 1994</b> EPA and MDEP negotiate a Memorandum of Understanding (MOU) to coordinate regulatory activities and oversee cleanup work. The MOU is signed in 1994.</p>	<p><b>1992 to 1999</b> Under the Massachusetts Contingency Plan, GE samples and evaluates potential imminent hazards on 60 recreational and residential properties in six communities along the Housatonic River's 10-year floodplain. Short-Term Measures are implemented on 19 properties. The measures include removal of PCB-contaminated superficial soils, posting warning signs, and planting vegetative barriers to restrict access to wooded areas.</p>	<p><b>June 1997 to July 1999</b> Building 68 removal action is performed under CERCLA Order. Approximately 5,000 cubic yards (cy) of PCB-contaminated sediments and 1,100 cy of PCB-contaminated bank soils are removed. The river channel is armored and restored and the riverbanks are revegetated and stabilized.</p>	<p><b>1996 through 2001</b> EPA conducts extensive studies south of the Confluence of the East and West Branches of the Housatonic River. The studies consist of sampling sediments and bank and floodplain soils, biological and ecological investigations, and modeling to provide data for human health and ecological risk assessments and to predict rates of river recovery under different cleanup scenarios.</p>
<p><b>1997 through October 2001</b> Three hundred and fifteen residential properties in Pittsfield are sampled for PCB contamination by GE. PCB-contaminated fill is removed from 164 residential properties.</p>	<p><b>1998 through 2000</b> EPA undertakes an Engineering Evaluation/Cost Analysis to evaluate remedial alternatives for cleanup of the 1 1/2-Mile Reach of the Housatonic River from Lyman Street Bridge to the Confluence of the East and West Branches.</p>	<p><b>March 1999 through Present</b> Additional source control measures are implemented at East Street Area II, Newell Street Parking Lot, and Lyman Street Parking Lot sites. Measures include adding borings to determine the extent of LNAPL and DNAPL plumes, installing wells to evaluate the efficacy of the source control measures and to recover oil, and installing Waterloo sheepfencing to prevent oil plumes from reaching the Housatonic River.</p>	<p><b>October 1999 through Present</b> PCB-contaminated sediments and soils are removed from the riverbanks and channel of the 1 1/2-Mile Reach from the Newell Street Bridge to the Lyman Street Bridge on the Housatonic River. The channel floor and lower portions of the banks are capped and armored; upper banks will be revegetated. Habitat enhancements will be provided.</p>

Community Relations Plan – GE/Housatonic River Project  
Pittsfield, Massachusetts

**FIGURE 3-1  
SIGNIFICANT MILESTONES FOR  
THE GE HOUSATONIC RIVER SITE**

## 4. COMMUNITY INVOLVEMENT TECHNIQUES

The community relations process is entered into to build citizen trust in the agencies and to guarantee meaningful local participation. Collaborative stakeholder processes that include affected citizens, organized citizen groups, elected officials, and potentially responsible parties (PRPs) give voice to the concerns and preferences for proposed and final remedies and for other significant decisions throughout the cleanup. To ensure a citizen's informed, educated role in the decision-making process, certain community involvement activities are required to be conducted at designated milestones during the investigation and cleanup process. This community relations plan is a formal strategy for conducting EPA community involvement activities.

Although the GE site has not been designated a Superfund site, EPA has determined that community involvement techniques will reflect the spirit of the Superfund law. Specifically, EPA will follow the statutory requirements for public involvement as detailed in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requirements for public involvement at Superfund removal sites and will also follow the statutory requirements for public involvement as detailed under the Resource Conservation and Recovery Act (RCRA). The CERCLA requirements will apply to all aspects of the cleanup except the Rest of River process which, up until the design stage, will follow public involvement requirements as detailed in RCRA. After any appeals of the selected remedy for the Rest of River have been exhausted, design and implementation of the Rest of River cleanup will be conducted under CERCLA. Attachment F.1 presents information about EPA's guidance for community relations activities at Superfund sites, and Attachment F.2 presents information about public participation activities at RCRA sites.

Activities that will be conducted during the investigation and cleanup of the GE/Housatonic River Site are described in the following subsections.

### 4.1 FORMATION OF A CITIZENS COORDINATING COUNCIL

As part of the Agreement in Principle, the negotiating parties asked the Massachusetts Office of Dispute Resolution (MODR) to convene a Citizens Coordinating Council. The council met for the first time on November 4, 1998, and meets monthly. The council meetings are open to the public. The council includes leaders from Berkshire County's political, environmental, community, and business sectors, as well as community and environmental representatives from affected northwest Connecticut communities. The council provides an important mechanism to ensure

**COMMUNITY INVOLVEMENT TECHNIQUES**

that all of the parties honor their commitment to listen to, learn from, and incorporate the ideas and concerns of the community to the greatest extent possible. The council ensures that citizen concerns are incorporated into key environmental decisions made by all parties involved.

**4.1.1 Purposes and Operating Guidelines for the Citizens Coordinating Council**

The purposes of the Citizens Coordinating Council (CCC) are as follows:

1. To serve as a vehicle for community involvement in the implementation of the settlement agreement between GE and the government.
2. To be a mechanism to ensure that all parties to the negotiated agreement are able to honor their commitment to listen to, to learn from, and incorporate the ideas and concerns of the community to the greatest extent possible.
3. To enable representatives of diverse interests in the region to communicate with each other, and to provide community input and structured feedback to GE and the government.

To carry out these responsibilities and to enable the orderly and constructive conduct of meetings, the CCC uses the following operating guidelines:

1. Respecting the diverse interests and views of representatives.
2. Focusing the discussion on issues and substance, not individuals.
3. Raising hand for recognition to speak.
4. Requiring observers to convey ideas or questions to the group through one of the Council members.
5. Beginning and ending the meetings within the timeframe agreed upon for each meeting.
6. Regularly conveying information to and feedback from the constituency that members represent.
7. Providing continuity of representation by regular attendance.
8. Enabling involvement of interested citizens not on the Council via participation with subcommittees or task groups.

**COMMUNITY INVOLVEMENT TECHNIQUES**

9. Contacting MODR and the CCC ahead of time if an alternate will be taking a member's place. Members may identify an alternate to attend in their place.

**4.1.2 Council Membership**

The CCC and the Connecticut Subcommittee of the CCC represent a wide variety of environmental, residential, community, and business interests in Berkshire County and western Connecticut. Council participants include representatives from local and state government; representatives from the federal and state agencies responsible for the project, as well as representatives from General Electric; representatives from numerous environmental, conservation, and outdoor recreational associations from throughout Berkshire County and western Connecticut; and representatives from the Berkshire County business community, including participants from the Berkshire Chamber of Commerce and Berkshire Community College. A list of local interest groups is included in Attachment A.8. For additional information regarding the membership of the Citizens Coordinating Council, contact the Massachusetts Office of Dispute Resolution (listed in Attachment A.3), which oversees the smooth operation of the Council.

**4.1.3 Facilitating Council Meetings**

The MODR facilitator will oversee the council meetings to ensure their smooth operation.

Basically, the role of the facilitator will be as follows:

- To prepare the meeting agenda.
- To ensure that all issues to be addressed during the meeting are included on the meeting agenda.
- To introduce speakers/presenters.
- To open the floor for discussion and ensure that the same members do not always dominate the discussion.
- To encourage quiet members to share their views.
- To sum up discussions and outline upcoming action items.

The facilitator plays an important role in running smooth meetings; however, each member also must recognize his/her role in the overall meeting atmosphere. The basic meeting structure is as follows:

**COMMUNITY INVOLVEMENT TECHNIQUES**

- While lively debate is encouraged, members will refrain from interrupting other members during a discussion or presentation.
- Members will respect the decision of the facilitator to move a discussion along, or to end one, particularly if time is of the essence.
- If serious differences arise among members, the facilitator may ask that a separate meeting be held where differences can be settled.

**4.1.4 Connecticut Subcommittee Mission Statement and Operating Guidelines**

The mission of the Connecticut Subcommittee is as follows:

1. To serve as a platform for CT stakeholders in the implementation of the Consent Decree between General Electric and the Government.
2. To act as a Subcommittee to the GE-Housatonic River Citizens Coordinating Council (CCC), by linking its activities to those of the CCC including liaison with and reporting to the CCC.
3. To be a mechanism to ensure that all parties to the negotiated agreement are able to honor their commitment to listen to, to learn from, and incorporate the ideas and concerns of the community to the greatest extent possible.
4. To enable representatives of diverse interests in the region to communicate with each other, and to provide community input and structured feedback on the implementation of the Consent Decree cleanup activities.

To carry out its mission and to enable the orderly and constructive conduct of meetings, the CT Subcommittee will use the following operating guidelines:

1. Respecting the diverse interests and views of all people.
2. Focusing the discussion on issues and substance, not individuals.
3. Raising hand for recognition to speak.
4. Regularly conveying information to and feedback from other stakeholders not at the meetings.
5. Providing continuity by regular attendance.

**COMMUNITY INVOLVEMENT TECHNIQUES**

6. Beginning and ending meetings within the agreed-upon timeframe. Meetings to begin at 7:00 p.m. and end at 9:00 p.m. unless otherwise agreed.
7. Holding meetings on a quarterly basis on the last Monday of the month. The first meeting was November 21, 2000.
8. Alternating the location of the meetings between New Milford and Kent. The first meeting was held in Kent.
9. Sending notices of meetings: Meeting notices will be sent in advance and as early as possible by the facilitator. Notices of meetings will also be posted on the EPA web site [www.epa.gov/ne/ge/](http://www.epa.gov/ne/ge/). Members will also assist this effort by communicating with the media and other stakeholders.
10. Preparing and distributing meeting highlights: The facilitator will prepare Committee meeting highlights. These notes will be distributed to all members as soon as possible after the meeting and reviewed at the start of the following meeting.
11. Receiving notification and notes from the GE-Housatonic River CCC meetings. All materials will be sent by electronic mail to those people who have provided email addresses.
12. Creating an Action Item list to assist the Committee in tracking commitments made during meetings. The facilitator will prepare this list.
13. Creating an Agenda: The CT Subcommittee will decide upon the agenda during their meetings. Committee members can also make suggestions for meetings by contacting the facilitator. The facilitator will use this input and create a proposed agenda. Each meeting's agenda will also include updates from EPA, the Natural Resource Damage (NRD) Trustee, and the CTDEP.
14. Participation and Representation: Meetings are public and open to all.

**4.1.5 Summary of Citizens Coordinating Council Meetings**

The following presents summaries of Citizens Coordinating Council meetings.

November 4, 1998—First meeting. Organization, mission, and operating procedures were discussed.

**COMMUNITY INVOLVEMENT TECHNIQUES**

December 2, 1998 – Discussed the purpose of the CCC and operating principles and guidelines. GE's Conceptual Work Plan for the Upper Reach of the Housatonic River (½-Mile) and GE's Source Control Work Plan for the Upper Reach of the Housatonic River (½-Mile) were discussed. Future meeting dates were set; and future agendas, topics, and priorities were discussed.

January 6, 1999 – Distributed CCC purpose statement and operating guidelines. Presentation and discussion on Natural Resource Damage (NRD) issues by the NRD trustees. Also a discussion of future agenda items.

February 3, 1999 – Presentation on Draft Removal Action Work Plan for Upper ½-Mile Reach of the Housatonic River followed by a question and answer period.

February 11, 1999 – Further discussion of Draft Removal Action Work Plan for Upper ½-Mile Reach of the Housatonic River followed by a question and answer period.

March 3, 1999 – Presentation on the Final Draft Supplemental Investigation Work Plan for the Lower Housatonic River including an overview of the work plan, the human health risk assessment, and the ecological risk assessment. Followed by a question and answer period.

April 7, 1999 – Updates by the agencies and GE, presentation by EPA on the Final Draft Supplemental Investigation Work Plan for the Lower Housatonic River.

May 12, 1999 – Presentation on the Interim Agreement Proposal for the implementation of work at the Allendale School and Upper ½-Mile Reach of the Housatonic River and on-site consolidation. Overview of the public comment process that the proposed interim agreement would be subject to. A question and answer period followed.

June 2, 1999 – Review of possible future agenda items and discussion of landfilling as part of the Interim Agreement Proposal.

August 4, 1999 – Updates on the progress of the Allendale School cleanup and preparation of the consolidation areas and work in the first ½ mile of the river. Followed by a presentation on the key provisions of the Economic Development Agreement reached between the City of Pittsfield and GE.

October 6, 1999 – Updates on various cleanup activities followed by a discussion of residential fill concerns.



**COMMUNITY INVOLVEMENT TECHNIQUES**

October 26, 1999 – Presentation and overview on the Consent Decree settlement reached between the government parties and GE, an overview of the settlement, and an overview of the public comment process for the Consent Decree. A question and answer period followed.

November 17, 1999 – Discussion about the residential fill program and how to adjust the process so that affected homeowners and residential fill organizations' involvement throughout the process is made more formal.

January 5, 2000 – Presentation on the Natural Resource Damage (NRD) component of the settlement by the NRD trustees. Followed by updates on other aspects of the project and a question and answer period.

February 2, 2000 – Updates by government agencies on the project and an update on the work of the Residential Fill Ad-Hoc Committee.

March 1, 2000 – Presentation of the Engineering Evaluation/Cost Analysis (EE/CA) Report for the 1½-Mile Reach of the Housatonic River followed by a question and answer period.

April 12, 2000 – Presentation of the agreement reached between EPA and Housatonic River Restoration, Inc. to address core community concerns regarding the cleanup as outlined in the Consent Decree reached between the government and GE. Followed by updates on other aspects of the project.

May 3, 2000 – Updates on aspects of the project followed by a discussion regarding involving Connecticut stakeholders in future CCC meetings.

June 7, 2000 – A CCC meeting is held in Stockbridge, MA, to facilitate participation of groups from Connecticut. EPA offers an update on "Rest of River" investigations, human health and ecological risk assessments, and hydrodynamic modeling. Connecticut DEP officials give updates on sediment and biota sampling efforts occurring in Connecticut. Natural Resource Damage updates and GE site remediation updates are also provided.

July 20, 2000 – EPA, MDEP, and GE take the CCC members on a tour of the GE site in lieu of a monthly meeting. The site tour includes the following areas: Building 19, the Hill 78 and Building 71 On-Plant Consolidation Areas, and the ½-Mile Removal Action Area.

August 18, 2000 – The CCC receives updates on EPA, MDEP, and GE activities and a presentation on the newly designed EPA web site for the GE project. This meeting was held at the Stockbridge Town Hall in order to accommodate interested citizens from the State of Connecticut. CCC members decide to not meet again until October.

**COMMUNITY INVOLVEMENT TECHNIQUES**

October 4, 2000 – Presentation to the CCC on the Consent Decree. Updates were presented by the agencies and GE.

November 21, 2000 – GE - Pittsfield CCC Connecticut Subcommittee Meeting – The first organizational meeting of the GE - Pittsfield CCC Connecticut (CT) Subcommittee. Meeting discussion included the purpose behind the initial meeting, background on the CCC, the establishment of the CT Subcommittee, and a brief introduction to the cleanup issues and the Consent Decree. As a result of input from Connecticut representatives on the CCC, the CCC decided to explore the formation of a CT Subcommittee that would meet in Connecticut. The purpose of the subcommittee is to improve Connecticut stakeholders' ability to learn and comment on the cleanup of the Housatonic River and related areas covered by the Consent Decree. EPA, CTDEP, and the CT NRD trustee made presentations to the group and answered questions. The group also discussed the CT Subcommittee mission and procedures and decided that the subcommittee would meet on a quarterly basis.

January 5, 2001 – GE-Housatonic River CCC Meeting – Updates by GE, MDEP, the NRD representative, and EPA. In addition, a presentation was made on the first meeting of the CT Subcommittee. As a result of the subcommittee meeting in Connecticut, the group reached a consensus that the name of the CCC should change to "GE-Housatonic River CCC" without the word "Pittsfield" in the name any longer.

February 7, 2001 – GE-Housatonic River CCC Meeting – Updates presented by GE, MDEP, the NRD representative, and EPA. Updates included work in the river and the commercial properties and residential cleanup program. EPA announced a 2-week extension of the comment period for Connecticut residents to comment on the Biota Consumption Advisories on the River. There was a discussion whether the West Branch and entire watershed should be posted with consumption warnings. MDEP updated the group on activities at the King Street Dump, in the West Branch of the river, and sediment sampling in Goodrich Pond.

March 26, 2001 – GE-Housatonic River CCC CT Subcommittee Meeting – EPA presentation on the preliminary evaluation of a wide spectrum of data gathered from the Rest of River Reach and a status report on the ecological characterization of the Connecticut Housatonic River Valley to map habitats, to identify animal use, and to develop baseline conditions that describe the ecological setting. A discussion about production and posting of fish consumption signs on the Connecticut portion of the Housatonic River ensued.

April 4, 2001 – GE-Housatonic River CCC Meeting – EPA presentation to the group on the Human Health Risk Assessment Process with a discussion following. Updates on site activities by GE, EPA, MDEP, and

**COMMUNITY INVOLVEMENT TECHNIQUES**

the NRD representative and an update on the March 26, 2001 Connecticut Subcommittee meeting.

May 2, 2001 – GE-Housatonic River CCC Meeting – Updates by GE, EPA, and the NRD trustee. The first Peer Review Meeting (on the Modeling Framework document for Rest of River), held on April 25 and 26, 2001, was summarized and discussed.

June 6, 2001 – GE-Housatonic River CCC Meeting – In lieu of a regular meeting, the CCC was given a tour of the GE site. Brief updates made by EPA and MDEP to the group, and a GE representative led the site visit, including a tour of work in the ½-Mile Reach of the river, the water treatment plant, and the Hill 78 Consolidation Area.

June 25, 2001 – GE-Housatonic River CCC CT Subcommittee Meeting – The “Purpose Statement and Operating Guidelines of the CT Subcommittee” were reviewed by the group. EPA updated the group on the analysis of data collected from the Rest of River, including the review of more than 30 reports previously produced by federal and state agencies representing data from the past 30 plus years. A discussion followed the presentation. Updates were presented by CTDEP and the NRD representative.

July 24, 2001 – GE-Housatonic River CCC Meeting – EPA presentation on the “Ecological Risk Assessment for the Housatonic River: Initial Field Study Results.” The presentation included the role of the ecological risk assessment in the Rest of River project, EPA’s approach, the role of field studies in the assessment, the initial results from the field studies, next steps, and a schedule. A discussion on the Ecological Risk Assessment followed. Updates were made by GE, EPA, MDEP, NRD, and CT Subcommittee.

Meeting minutes for recent CCC meetings are available on the EPA Housatonic River Web Site under the category “Public Events and Meetings.” The EPA Housatonic River Web Site address is: <http://www.epa.gov/ne/ge/>.

## **4.2 ADMINISTRATIVE RECORD**

The administrative record contains the information EPA uses to select a response action under CERCLA. The administrative record file can be used to ensure that the public knows what is happening at the site as well as how to become involved in determining what happens at the site. A duplicate file is held at EPA’s Boston office (1 Congress Street, Suite 1100, Boston, MA 02114).

**COMMUNITY INVOLVEMENT TECHNIQUES****4.3 COMMUNITY INTERVIEWS**

Using information obtained during the community interviews, EPA has developed this community relations plan that reflects consideration of the concerns and communication methods preferred by the community. (See Subsection 3.7 for community interview information).

**4.4 INFORMATION REPOSITORIES**

To provide the public with convenient access to information about the GE/Housatonic River Project, EPA has established several information repositories. The repositories contain current information, technical reports, work plans, fact sheets, and reference documents about the site. EPA has placed the information repositories at different locations along the Housatonic River.

To ensure the effectiveness of the repositories, in recent months, EPA has been reviewing the status of the existing repositories and consulting with members of the CCC and the CT Subcommittee of the CCC. In light of that review and those discussions, EPA has determined that, in the future, relevant information regarding the GE/Housatonic River Project will be made available at the following repository locations:

- The Berkshire Athenaeum Public Library, 1 Wendell Avenue, Pittsfield, MA.
- Simon's Rock College of Bard Library, 84 Alford Road, Great Barrington, MA.
- Cornwall Public Library, 30 Pine Street, Cornwall, CT.
- Kent Memorial Library, 32 North Main Street, Kent, CT.
- Housatonic Valley Association offices, 150 Kent Road, Cornwall Bridge, CT

EPA also has an extensive internet web site devoted to the GE/Housatonic River Project (<http://www.epa.gov/ne/ge>). On this web site, EPA places current and historical information relevant to the project.

In addition, copies of information related to the GE/Housatonic River Project are maintained in the following agency locations:

- EPA Records Center, Boston, MA.

**COMMUNITY INVOLVEMENT TECHNIQUES**

- Massachusetts Department of Environmental Protection, Springfield, MA.
- Connecticut Department of Environmental Protection, Hartford, CT.

Location information and hours of operation are presented in Attachment C.1.

**4.5 PUBLIC COMMENT PERIODS**

Public comment periods, which occur in conjunction with the release of the individual documents, provide all interested parties, including local officials, business leaders, residents, and community groups, an opportunity to express their opinions about the recommended cleanup alternatives and to participate in the final decision-making process for site cleanup. The comment periods are announced by an advertisement published in the *Berkshire Eagle*. A press release announcing the comment periods is also sent to other local media. The procedures as well as a contact name for obtaining further information may also be announced. Community input during the public comment periods is encouraged.

**4.6 MAILING AND DISTRIBUTION LISTS**

Mailing and distribution lists are maintained and updated throughout the project to ensure that the project's stakeholders are notified of meetings, are informed of project milestones, and receive important documents such as fact sheets and information about repository locations. A database of interested parties and their affiliations is developed to allow for efficient updating of the mailing list and to categorize stakeholders into subgroups for mailings.

**4.7 PUBLIC MEETINGS**

Public meetings will be held to describe environmental studies for different site areas and proposed or ongoing cleanup activities.

Public meetings provide opportunities for EPA and MDEP to address questions and comments, to discuss the recommended cleanup alternatives, and to obtain input from community members.

As described in Attachment I, Project Chronology, public meetings have been held at key project milestones to discuss environmental studies and cleanup activities. For example, public meetings have been held to discuss the Consent Order, residential fill issues, the RCRA Corrective Action Permit, the Agreement in Principle, Allendale School, the Consent Decree, and the Engineering Evaluation/Cost Analysis studies of the 1½-Mile Reach.

**COMMUNITY INVOLVEMENT TECHNIQUES**

Availability sessions may also be held during the cleanup activities. The EPA Community Involvement Coordinator and the EPA Remedial Project Manager will conduct these meetings. The schedule of public meetings and availability sessions will remain flexible to account for milestones and public interest.

**4.8 PUBLIC HEARING TRANSCRIPT**

When a public hearing is held, a verbatim transcript will be prepared. EPA will place the transcripts in the information repositories.

**4.9 MEETINGS WITH LOCAL OFFICIALS AND RESIDENTS**

Various city and county officials and residents have indicated that they want to be kept informed about cleanup activities at the GE site. EPA and MDEP will continue to meet with these officials at various times throughout the cleanup process when requested by interested parties.

**4.10 TECHNICAL ASSISTANCE GRANTS**

Technical Assistance Grants (TAGs) are available for organizations or community groups to hire experts to assist them in understanding the technical information related to hazardous waste sites. TAGs are available from both EPA and MDEP.

Since May 1994, \$90,000 from MDEP's Technical Assistance Grant and other accounts has been awarded to HRI. These funds have been used by HRI to fund technical outreach and education projects, including publishing newsletters and sponsoring educational forums, and working with local citizens to disseminate information about the cleanup process and risks associated with the sites. The technical assistance funding has also been used to hire a technical consultant to review reports, to attend technical meetings, to monitor the remediation process, and to provide and coordinate review comments on technical site-related reports. During a recent funding round, some of the money was used to train Pittsfield Fire Department personnel about the risks associated with PCBs at the GE/Pittsfield facility.

Additional information about TAGs is presented in Attachment E.

**4.11 FACT SHEETS**

During the course of the environmental studies at the GE/Housatonic River Site, various fact sheets and other informational materials have been produced and distributed to the public. Fact sheets and other publications produced by EPA, MDEP, and Massachusetts Department of Public Health are presented in Attachment H.

**COMMUNITY INVOLVEMENT TECHNIQUES**

Additional fact sheets and publications, written in nontechnical language and produced to coincide with particular milestones during the investigation and cleanup process, will be developed to provide the community with detailed information about the site.

The fact sheets and newsletters will include applicable maps, repository information, project information, information related to public meetings and/or availability sessions, and contact persons. These fact sheets and newsletters will be placed in the information repositories and sent to all parties on the mailing list. Other fact sheets and publications may be developed to respond to specific community information needs.

**4.12 PRESS RELEASES**

Prepared statements will be released to local newspapers and to radio and television stations to announce significant findings at the site during the investigation/cleanup, and to notify the community of public meetings, public comment periods, or availability sessions.

Listings of local media outlets (newspapers, television stations, and radio stations) are presented in Attachments A.10, A.11, and A.12, respectively.

A listing of newspaper articles related to the GE/Housatonic River project (published in the *Berkshire Eagle* and the *Boston Globe*), and copies of selected newspaper articles are presented in Attachment D.

**4.13 EPA WEB SITE**

The GE/Housatonic River Web Site was developed by EPA to provide additional public access to information concerning the GE/Housatonic River site remediation. The web site is divided into the following areas:

- The Site
- Cleanup Agreement
- Restoration
- Redevelopment
- PCBs, Health and Environment
- Photo Gallery
- Site History and Description
- Links
- Press Releases
- Public Events and Meetings
- What's New

The web site address is <http://www.epa.gov/ne/ge/>. Exhibit 4-1 presents the home page of the GE/Housatonic River Web Site. The web site is currently receiving approximately 9,000 hits per month.

**COMMUNITY INVOLVEMENT TECHNIQUES****4.14 TELEPHONE HOTLINE**

A toll-free telephone number, 888-372-7341, has been established and publicized in local newspapers and in publications, such as fact sheets and brochures, and announced at community meetings. The telephone number is available for members of the public to call and ask questions of EPA or to request copies of written information such as fact sheets, reports, or updates on activities at the site. Staff are also accessible via e-mail, and information requests and questions can be sent via the web site.

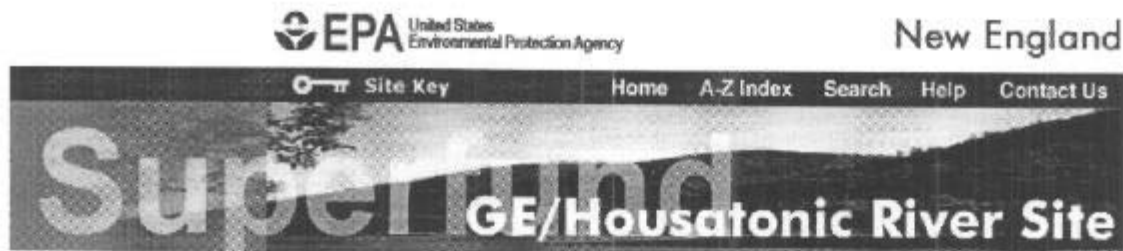
**4.15 REVISED COMMUNITY RELATIONS PLAN**

Through the various means of communication and interaction listed in this section, EPA will note changes in community concerns, information needs and activities, and revise this Community Relations Plan as necessary to respond to those changes. The revised Community Relations Plan will update and verify the information contained in this plan, assess the community involvement programs to date, and develop community involvement activities appropriate for the particular cleanup phase of the project.

**4.16 PROGRAM EVALUATION**

At key milestones during the investigation and cleanup, EPA will evaluate the effectiveness of the community involvement program for the GE/Housatonic River Site. Surveys, questionnaires, or other evaluation tools may be designed to assess the effectiveness of public meetings, fact sheets, and other activities in conveying information and encouraging citizen participation.





Long-Term Cleanups

Welcome

Find New England Sites

search for:

GE/Housatonic River Site

- [Home](#)
- [The Site](#)
- [Cleanup Agreement](#)
- [Restoration](#)
- [Redevelopment](#)
- [PCB, Health & Environment](#)
- [Photo Gallery](#)
- [Site History & Description](#)
- [What's New](#)
- [Public Events & Meetings](#)
- [Press Releases](#)
- [Links](#)

The Site

Cleanup Agreement

Restoration

Redevelopment

What's New

Public Events & Meetings

Press Releases

Links

PCBs, Health & Environment

Photo Gallery

Site History & Description

## Introduction

Substantial progress has been made over the past year on the cleanup of the Housatonic River and Berkshire County. Much of the focus has been on removing PCB-contaminated river sediments and bank soils from the upper ½-mile reach of the Housatonic River in Pittsfield, MA. As of fall 2001, more than 10,700 cubic yards of contaminated river sediments and bank soils have been removed. The upper ½-mile cleanup is scheduled to be done by March 2002.

In November 2000, EPA's New England Office approved a final plan for cleaning up the next 1½ miles of the Housatonic River in Pittsfield between the Lyman Street Bridge and the confluence of the river's east and west branches. The cleanup, which will involve excavating about 95,000 cubic yards of PCB-contaminated sediments and bank soils, will begin after the first half-mile cleanup is done in early 2002.

The work comes after a federal judge in October 2000 gave final court approval to a 400-page Consent Decree, which serves as a blueprint for the massive PCB cleanup in western Massachusetts and Connecticut. The judge's approval makes the cleanup plan legally binding. Among the projects covered in the Consent Decree are the cleanup of the Housatonic River, GE's 250-acre property in Pittsfield, filled oxbow areas, Silver Lake, Unkamet Brook and floodplain properties along the river. The document also outlines a natural resource damage package that GE will fund. Additionally, GE has pledged \$45 million for the cleanup and revitalization of the 250-acre property in Pittsfield – among the largest Brownfields investments of its kind in the country.

### Exhibit 4-1 GE/Housatonic River Web Site

## 5. BIBLIOGRAPHY

Agency for Toxic Substances and Diseases Registry. 2001. ToxFAQs™. [Online]. Available: <http://www.atsdr.cdc.gov/tfacts18.html>.

Agency for Toxic Substances and Diseases Registry. 2001. ToxFAQs™. [Online]. Available: <http://www.atsdr.cdc.gov/tfacts19.html>.

Bates, Robert L. and Julia A. Jackson, Editors. 1984. *Dictionary of Geological Terms*. Third Edition. Anchor/Press/Doubleday, Garden City, NY.

Berkshire Chamber of Commerce. 2001. *2001 Berkshire Relocation Guide*.

Berkshire County. 1998. *County, City and Town Officers in Berkshire County for 1998-1999*.

Berkshire County. 1999. *County, City and Town Officers in Berkshire County for 1999-2000*.

Berkshire Hills Conference/Berkshire Visitors Bureau. 2001. *The Berkshires: America's Premier Cultural Resort, 2001 Official Visitors' Guide*.

*The Berkshire Eagle*. [Online]. Available: <http://www.berkshireeagle.com>.

*Boston Globe*. [Online]. Available: <http://www.boston.com/globe>.

Chamber of Commerce of the Berkshires. 1998. *Welcome to the Berkshires: Relocation Guide*.

Chamber of Commerce of the Berkshires. 2000. *Welcome to the Berkshires: Relocation Guide*.

City of Pittsfield. [Online]. Available: <http://www.pittsfield-ma.org>.

Commonwealth of Massachusetts. [Online]. Available: <http://www.state.ma.us>.

Connecticut General Assembly. [Online]. Available: <http://www.cga.state.ct.us/default.asp>.

Connecticut State Senate. [Online]. Available: <http://www.senatereps.state.ct.us>.

Congress.Org. [Online]. Available: <http://legislators.com/congressorg2/capdir.html>.

## BIBLIOGRAPHY

EPA (U.S. Environmental Protection Agency). GE/Housatonic River Web Site. [Online]. Available: <http://www.epa.gov/ne/ge/>.

EPA (U.S. Environmental Protection Agency). 1992. *Community Relations in Superfund: A Handbook*. OSWER Dir. No. 9230.0-03C.

EPA (U.S. Environmental Protection Agency). 1994. "Terms of Environment: Glossary, Abbreviations, and Acronyms." Communications, Education, and Public Affairs.

EPA (U.S. Environmental Protection Agency). August 1994. "Chemical Summary for Methylene Chloride (Dichloromethane). [Online]. Available: [http://www.epa.gov/opptintr/chemfact/s\\_dcm.txt](http://www.epa.gov/opptintr/chemfact/s_dcm.txt).

EPA (U.S. Environmental Protection Agency). January 16, 1998. *GE Pittsfield Site Focus Group Report*.

EPA (U.S. Environmental Protection Agency). 2001. *Superfund Community Involvement Handbook*. Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, Washington, D.C., EPA 540-K-01-003.

Gebbie Press. 1997. *All-in-One-Directory*. Gebbie Press, New Paltz, NY.

Massachusetts Department of Environmental Protection. April 1995. *Public Involvement Plan for the Housatonic River and the General Electric Company Pittsfield Disposal Sites*.

Nevada Division of Water Planning. *Water Words Dictionary: A Compilation of Technical Water, Water Quality, Environmental, and Water-Related Terms*. 1997. Department of Conservation and Natural Resources, Carson City, NV. [Online]. Available: <http://www.state.nv.us/cnr/ndwp/home.htm>.

New York State Department of Environmental Conservation. 1998. *Hudson River Estuary Management Program Annual Report and State of the Hudson Report for the Period for 4/1/97 - 3/31/98*. River Estuary Management Program.

Official List of Members, 107<sup>th</sup> Congress. [Online]. Available: <http://clerkweb.house.gov/107/oalnbr.php3>.

Parker, Sybil P. Chief Editor. 1984. *McGraw Hill Dictionary of Scientific and Technical Terms. Third Edition*. McGraw-Hill Book Company, New York, NY.

Random House, Inc. 1987. *The Random House Dictionary of the English Language*. Second Edition. Unabridged. Random House, Inc., New York, NY.

BIBLIOGRAPHY

State of Connecticut Municipal Public Access Initiative. [Online].  
Available: <http://www.munic.state.ct.us/project.htm>.

The Ultimate Directory. [Online]. Available: <http://www.infospace.com>.

United States House of Representatives – 107<sup>th</sup> Congress. [Online].  
Available: <http://www.house.gov>.

WESTON. 2000. *Engineering Evaluation/Cost Analysis for the Upper Reach of the Housatonic River*. Prepared for USACE. Technical Support Services General Electric (GE) Housatonic River Project. Pittsfield, MA.

---

**ATTACHMENT A**

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

---

# TABLE OF CONTENTS

Section	Page
<b>ATTACHMENT A CONTACTS, INTERESTED PARTIES, AND MEDIA LIST.....</b>	<b>A-1</b>
A.1 KEY CONTACTS .....	A-1
A.2 FEDERAL AGENCY OFFICIALS.....	A-2
A.3 STATE AGENCY OFFICIALS.....	A-3
A.3.1 Massachusetts .....	A-3
A.3.2 Connecticut.....	A-5
A.4 FEDERAL ELECTED OFFICIALS.....	A-6
A.4.1 Massachusetts .....	A-6
A.4.2 Connecticut.....	A-7
A.5 STATE ELECTED OFFICIALS.....	A-8
A.5.1 Massachusetts .....	A-8
A.5.2 Connecticut.....	A-9
A.6 BERKSHIRE COUNTY OFFICIALS.....	A-10
A.7 MUNICIPAL OFFICIALS.....	A-10
A.7.1 Pittsfield .....	A-10
A.7.2 Great Barrington.....	A-12
A.7.3 Lee.....	A-13
A.7.4 Lenox .....	A-13
A.7.5 Sheffield .....	A-14
A.7.6 Stockbridge.....	A-14
A.8 INTEREST GROUPS.....	A-15
A.9 GENERAL ELECTRIC COMPANY REPRESENTATIVES.....	A-17
A.10 NEWSPAPERS .....	A-17
A.10.1 Massachusetts .....	A-17
A.10.2 Connecticut.....	A-18
A.10.3 New York.....	A-19
A.10.4 Other States .....	A-20
A.11 TELEVISION STATIONS .....	A-20
A.11.1 Massachusetts .....	A-20
A.11.2 New York.....	A-21
A.11.3 Connecticut.....	A-21
A.12 RADIO STATIONS.....	A-22
A.12.1 Massachusetts .....	A-22
A.12.2 Connecticut.....	A-24
A.12.3 New York.....	A-24

# ATTACHMENT A

## CONTACTS, INTERESTED PARTIES, AND MEDIA LIST

The function of the contact list is to provide the names, addresses, and phone numbers of the individuals to contact for additional information. The key contacts listed in Section A.1 are the primary parties who should be contacted to obtain information about the sites, the status of the agencies' review of particular project components, interpretations of the Consent Decree, or other questions.

Information on federal, state, and county elected officials was gathered from the publications *County, City and Town Officers in Berkshire County for 1998-1999 and 1999-2000* and from the web sites of Massachusetts, Connecticut, and New York. Information on elected officials is current as of November 2001.

The municipal information was taken from online municipality sites and from the online version of *The Berkshire Eagle*. The municipalities chosen are those abutting the Housatonic River.

The listings for agency officials were drawn from existing mailing lists. Environmental and other interest group information was found on existing mailing lists and in the *Hudson River Estuary Management Program Annual Report and State of the Hudson Report*.

Media listings were compiled from the Gebbie Press Directory. WESTON verified this information and confirmed the interest of television and radio stations in receiving site information.

### A.1 KEY CONTACTS

Angela Bonarrigo (617) 918-1034  
Community Involvement Coordinator Fax: (617) 918-1029  
U.S. Environmental Protection Agency  
One Congress Street, Suite 1100 (RAA)  
Boston, MA 02114-2023

J. Lyn Cutler, Section Chief, Special Projects (413) 755-2116  
Massachusetts Department of Fax: (413) 784-1333  
Environmental Protection  
436 Dwight Street  
Springfield, MA 01103

## CONTACTS, INTERESTED PARTIES, AND MEDIA LIST

## A.2 FEDERAL AGENCY OFFICIALS

Bryan Olson Team Leader U.S. Environmental Protection Agency One Congress Street, Suite 1100 (HIO) Boston, MA 02114-2023	(617) 918-1365 Fax: (617) 918-1291
Angela Bonarrigo Community Involvement Coordinator U.S. Environmental Protection Agency One Congress Street, Suite 1100 (RAA) Boston, MA 02114-2023	(617) 918-1034 Fax: (617) 918-1029
Dean Tagliaferro On-Scene Coordinator U.S. Environmental Protection Agency 10 Lyman Street Pittsfield, MA 01201	(413) 236-0969 Fax: (413) 236-0973
Tim Conway Attorney U.S. Environmental Protection Agency One Congress Street, Suite 1100 (SAA) Boston, MA 02114-2023	(617) 918-1705 Fax: (617) 918-1809
John Kilborn Attorney U.S. Environmental Protection Agency One Congress Street, Suite 1100 (SES) Boston, MA 02114-2023	(617) 918-1893 Fax: (617) 918-1809
Rose Howell Environmental Protection Specialist U.S. Environmental Protection Agency One Congress Street, Suite 1100 (HIO) Boston, MA 02114-2023	(617) 918-1213 Fax: (617) 918-1291
Susan Svirsky Project Manager, Rest of River U.S. Environmental Protection Agency One Congress Street, Suite 1100 (HIO) Boston, MA 02114-2023	(617) 918-1434 Fax: (617) 918-1291
Mike Nalipinski Project Manager, Facility/Brownfields U.S. Environmental Protection Agency One Congress Street, Suite 1100 (HBT) Boston, MA 02114-2023	(617) 918-1268 Fax: (617) 918-1291



**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

Dr. Kenneth Finkelstein (617) 918-1499  
 NOAA NOS WASC  
 N/ORR2  
 Bldg 3  
 7600 Sandy Point Way, NE  
 Seattle, WA 98115-6349

Anthon P. Giedt, Esq. (978) 281-9289  
 National Oceanic and Atmospheric Adm. Fax: (978) 281-9389  
 General Counsel  
 1 Blackburn Drive  
 Gloucester, MA 01930-2298

Mark Barash, Esq. (617) 527-3400  
 U.S. Dept. of the Interior Fax: (617) 527-6848  
 Office of the Solicitor  
 One Gateway Center, Suite 612  
 Newton Corner, MA 02158

**A.3 STATE AGENCY OFFICIALS****A.3.1 Massachusetts**

J. Lyn Cutler, Section Chief, Special Projects (413) 755-2116  
 Massachusetts Department of Fax: (413) 784-1333  
 Environmental Protection  
 436 Dwight Street  
 Springfield, MA 01103

Susan Steenstrup, Project Manager, (413) 755-2264  
 Housatonic River Fax: (413) 784-1333  
 Massachusetts Department of  
 Environmental Protection  
 Special Project Section  
 436 Dwight Street  
 Springfield, MA 01103

Sue Keydel, Project Manager, (413) 755-2250  
 GE Facility Fax: (413) 784-1333  
 Massachusetts Department of  
 Environmental Protection  
 Special Project Section  
 436 Dwight Street  
 Springfield, MA 01103

## CONTACTS, INTERESTED PARTIES, AND MEDIA LIST

Eileen Barnes, Project Manager, Residential Fill Properties Massachusetts Department of Environmental Protection Special Project Section 436 Dwight Street Springfield, MA 01103	(413) 755-2292 Fax: (413) 784-1149
Tom Angus, Risk Assessor Massachusetts Department of Environmental Protection Office of Research and Standards One Winter Street, 8 <sup>th</sup> Floor Boston, MA 02108	(617) 292-5513 Fax: (617) 556-1006
Mike Gorski, Regional Director of Western Region MADEP State House West 436 Dwight Street Springfield, MA 01103	(413) 755-2110 Fax: (413) 784-1149
Robert Bell, Esq. – Regional Counsel Massachusetts Department of Environmental Protection 436 Dwight Street, 5 <sup>th</sup> Floor Springfield, MA 01103	(413) 755-2219 Fax: (413) 784-1149
Alan Weinberg, Deputy Regional Director Massachusetts Department of Environmental Protection Special Project Section 436 Dwight Street, 5 <sup>th</sup> Floor Springfield, MA 01103	(413) 755-2220 Fax: (413) 784-1149
James Milkey, Esq. MA Attorney General's Office 200 Portland Street Boston, MA 02114	(617) 727-2200 x 3347 Fax: (617) 724-9665
Betsy Harper, Esq. MA Attorney General's Office 200 Portland Street Boston, MA 02114	(617) 727-2200 x3349 Fax: (617) 727-9665
Dale Young Executive Office of Environmental Affairs 251 Causeway Street, Suite 900 Boston, MA 02114	(617) 727-9800 Fax: (617) 626-1181

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

Harry Manasewich (617) 727-2224 x 2118  
 MA Office of Dispute Resolution Fax: (617) 727-6495  
 One Ashburton Place, Room 501  
 Boston, MA 02108

Tom O'Brien (413) 447-9771  
 Watershed Team Office Fax: (413) 499-4169  
 Hudson and Housatonic River Basin  
 MA Executive Office of Environmental Affairs  
 78 Center Street, Room 206  
 Pittsfield, MA 01201

**A.3.2 Connecticut**

Charles Fredette (860) 424-3714  
 State of Connecticut Fax: (860) 424-4055  
 Department of Environmental Protection  
 Water Management Bureau  
 79 Elm Street  
 Hartford, CT 06106-5127

Arthur J. Rocque, Jr. (860) 424-3001  
 State of Connecticut Department of Fax: (860) 424-4053  
 Environmental Protection  
 79 Elm Street  
 Hartford, CT 06106-5127

John Looney, Esq. (860) 808-5250  
 State of Connecticut Fax: (860) 808-5386  
 Attorney General's Office  
 55 Elm Street, P.O. Box 120  
 Hartford, CT 06141-0120

Richard Webb, Esq. (860) 808-5250  
 State of Connecticut Fax: (860) 808-5386  
 Attorney General's Office  
 55 Elm Street  
 P.O. Box 120  
 Hartford, CT 06141-0120

Brian Toal (860) 509-7742  
 State of Connecticut Fax: (860) 509-7785  
 Department of Public Health  
 Toxics Hazards Assessment Program  
 410 Capitol Avenue  
 Hartford, CT 06134

## CONTACTS, INTERESTED PARTIES, AND MEDIA LIST

**A.4 FEDERAL ELECTED OFFICIALS****A.4.1 Massachusetts**

Senator Edward M. Kennedy (202) 224-4543  
 315 Russell Senate Office Building Fax: (202) 224-2417  
 Washington, DC 20510  
 Barbara Souoiotis  
 Term expires: 2006

District Office (617) 565-3170  
 2400 JFK Federal Building Fax: (617) 565-3183  
 Boston, MA 02203

Senator John Kerry (202) 224-2742  
 421 Russell Senate Office Building Fax: (202) 224-8525  
 Washington, DC 20510  
 Term expires: 2008

District Office (617) 565-8519  
 1 Bowdoin Square, 10<sup>th</sup> Floor Fax: (617) 248-3870  
 Boston, MA 02114  
 Betsey McEvoy

Congressman John Olver, 1<sup>st</sup> District (202) 225-5335  
 1027 Longworth House Office Building Fax: (202) 226-1224  
 Washington, DC 20515  
 Hunter Ridgeway, Chief of Staff  
 Term expires: 2008

District Office (413) 442-0946  
 Federal Building Fax: (413) 443-2792  
 78 Center Street  
 Pittsfield, MA 01201

Congressman Charles Neal, 2nd District (202) 225-5601  
 2236 Rayburn House Office Building Fax: (202) 225-8112  
 Washington, DC 20515  
 Term expires: 2008

District Office (413) 785-0325  
 1550 Main Street Fax: (413) 747-0604  
 Federal Building, Suite 309  
 Springfield, MA 01103

## CONTACTS, INTERESTED PARTIES, AND MEDIA LIST

## A.4.2 Connecticut

Senator Christopher J. Dodd 444 Russell Senate Office Building Washington, DC 20510 Term expires: 2004	Fax: (202) 228-1683	(202) 224-2823
District Office Putnam Park 100 Great Meadow Road Wethersfield, CT 06109	Fax: (860) 258-6958	(860) 258-6940 or (800) 334-5341
Senator Joseph Lieberman 706 Hart Senate Office Building Washington, DC 20510 Term expires: 2006	Fax: (202) 224-9750	(202) 224-4041
District Office One Constitution Plaza, 7 <sup>th</sup> Floor Hartford, CT 06103	Fax: (860) 549-8478	(860) 549-8463 or (800) 225-5605
Congresswoman Rosa DeLauro, 3 <sup>rd</sup> District 2262 Rayburn House Office Building Washington, DC 20515 Term expires: 2008	Fax: (202) 225-4890	(202) 225-3661
District Office 59 Elm Street New Haven, CT 06510	Fax: (203) 772-2260	(203) 562-3718
Congresswoman Nancy Johnson, 6 <sup>th</sup> District 2113 Rayburn House Office Building Washington, DC 20515 Term expires: 2008	Fax: (202) 225-4488	(202) 225-4476
District Office 480 Myrtle Street, Suite 200 New Britain, CT 06053	Fax: (860) 827-9009	(860) 223-8412
Congressman James H. Maloney, 5 <sup>th</sup> District 1427 Longworth House Office Building Washington, DC 20515 Term expires: 2008	Fax: (202) 225-5476	(202) 225-3822
District Office 20 East Main Street, Suite 240 Waterbury, CT 06702	Fax: (203) 573-9329	(203) 573-1418

## CONTACTS, INTERESTED PARTIES, AND MEDIA LIST

**A.5 STATE ELECTED OFFICIALS****A.5.1 Massachusetts**

Acting Governor Jane M. Swift (617) 727-6250  
 State House, Room 360 Fax: (617) 727-9725  
 Boston, MA 02133  
 Term expires: 2002

Massachusetts State Senator, 1st District (617) 722-1625  
 Andrea F. Nuciforo, Jr. Fax: (413) 722-1523  
 State House, Room 323  
 Boston, MA 02133  
 Term expires: 2002

District Office: (413) 442-6810  
 74 North Street, Suite 604 Fax: (413) 442-6927  
 Pittsfield, MA 01201

Representative 1st District (617) 722-2120  
 Daniel E. Bosley Fax: (617) 722-2239  
 State House, Room 472  
 Boston, MA 02133  
 Term expires: 2002

District Office (617) 722-2120  
 3 Elmwood Avenue Fax: (617) 722-2239  
 North Adams, MA 01247  
 Lisa Kittler, Staff Director

Representative 13th District (617) 722-2080  
 Antonio F. Cabral Fax: (617) 722-2897  
 State House, Room 26  
 Boston, MA 02133  
 Committee on Counties  
 Term expires: 2002

District Office (508) 997-8113  
 212 Maple St. Fax: (508) 997-8113  
 New Bedford, MA 02740

Representative 4th District (617) 722-2900  
 Christopher J. Hodgkins Fax: (617) 722-2922  
 State House, Room 166  
 Boston, MA 02133  
 Term expires: 2002

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

District Office (413) 243-0289  
 100 Franklin Street Fax: (413) 243-4663  
 Lee, MA 01238  
 Michelle Zbell, Executive Assistant

Representative 2nd District (617) 722-2230  
 Shaun P. Kelly Fax: (617) 722-2837  
 Committee on House Ways & Means  
 State House, Room 473B  
 Boston, MA  
 Term Expires: 2002

District Office (413) 684-5133  
 399 Main Street, Suite 2E Fax: (413) 684-2070  
 Dalton, MA 01226

Representative 3rd District (617) 722-2070  
 Peter J. Larkin Fax: (617) 722-2817  
 State House, Room 473G  
 Committee on Taxation  
 Boston, MA 02133  
 Shyla Rufa, Staff Director  
 Term Expires: 2002

District Office (413) 448-8714  
 8 Bank Row Fax: (413) 448-6223  
 Pittsfield, MA 01201

**A.5.2 Connecticut**

Gov. John G. Rowland (860) 566-4840  
 Governor's Office Fax: (860) 524-7346  
 State Capital  
 210 Capital Avenue  
 Hartford, CT 06106  
 Term expires: 2003

Lt. Gov. M. Jodi Rell (860) 524-7384  
 Room 304 State Capital Fax: (860) 524-7304  
 210 Capital Avenue  
 Hartford, CT 06106  
 Term expires: 2003

Connecticut State Senator, 30th District (860) 240-8800  
 Andrew Roraback Fax: (860) 240-8306  
 455 Milton Road  
 Goshen, CT 06756  
 Term expires: 2002

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

Connecticut State Senator, 24<sup>th</sup> District (860) 240-8700  
 David Cappiello Fax: (860) 240-0207  
 8 Parker Street Unit 5  
 Danbury, CT 06811  
 Ellen Edson (860) 240-8700  
 Term expires: 2002

Representative, 109th District (860) 240-8769 or  
 Lewis J. Wallace (800) 842-8267  
 110 Hayestown Road Unit 2 Fax: (860) 240-0206  
 Danbury, CT 06811 (860) 240-8397  
 Kelly Ramsey, Legislative Asst.  
 Term expires: 2002

Representative, 110th District (860) 240-8500  
 Bob Godfrey Fax: (860) 240-0206  
 13 Stillman Avenue  
 Danbury, CT 06810-8007  
 Frank Purcaro (860) 240-8524  
 Term expires: 2002

**A.6 BERKSHIRE COUNTY OFFICIALS**

Berkshire Regional Planning Commission (413) 442-1521  
 1 Fenn Street, Suite 201, 2<sup>nd</sup> Floor Fax: (413) 442-1523  
 Pittsfield, MA 01201-6229

**A.7 MUNICIPAL OFFICIALS****A.7.1 Pittsfield**

Sara Hathaway (413) 499-9321  
 Mayor of Pittsfield Fax: (413) 442-8043  
 City Hall  
 70 Allen Street  
 Pittsfield, MA 01201  
 Term expires: 2004

Richard Scapin, City Council President (413) 443-0702  
 City Hall Fax: (413) 442-8043  
 70 Allen Street  
 Pittsfield, MA 01201



**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

Stephen D'Angelo (413) 499-9361  
Acting Commissioner of Public Health Fax: (413) 442-8043  
City Hall  
70 Allen Street  
Pittsfield, MA 01201

James Mooney, Chair (413) 499-9361  
Health Advisory Council Fax: (413) 442-8043  
City Hall  
70 Allen Street  
Pittsfield, MA 01201

William J. Carey, M.D. (413) 499-9361  
Health Advisory Council Fax: (413) 442-8043  
City Hall  
70 Allen Street  
Pittsfield, MA 01201

Therese C. Cote, R.N. (413) 499-9361  
Health Advisory Council Fax: (413) 442-8043  
City Hall  
70 Allen Street  
Pittsfield, MA 01201

George W. Douglas, M.D. (413) 499-9361  
Health Advisory Council Fax: (413) 442-8043  
City Hall  
70 Allen Street  
Pittsfield, MA 01201

Peter Marchetti, Councillor (413) 499-9361  
Health Advisory Council Fax: (413) 442-8043  
City Hall  
70 Allen Street  
Pittsfield, MA 01201

Caleb Mitchell (413) 499-9361  
Conservation Commission, Chair Fax: (413) 442-8043  
City Hall  
70 Allen Street  
Pittsfield, MA 01201

James Conant (413) 499-9361  
Conservation Commission Fax: (413) 442-8043  
City Hall  
70 Allen Street  
Pittsfield, MA 01201

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

Michael J. Makes (413) 499-9361  
 Conservation Commission Fax: (413) 442-8043  
 City Hall  
 70 Allen Street  
 Pittsfield, MA 01201

Mary K. O'Brien (413) 499-9361  
 Conservation Commission Fax: (413) 442-8043  
 City Hall  
 70 Allen Street  
 Pittsfield, MA 01201

Richard V. Quinn (413) 499-9361  
 Conservation Commission Fax: (413) 442-8043  
 City Hall  
 70 Allen Street  
 Pittsfield, MA 01201

Silvio V. Rotti (413) 499-9361  
 Conservation Commission Fax: (413) 442-8043  
 City Hall  
 70 Allen Street  
 Pittsfield, MA 01201

Ozias Vincelette (413) 499-9361  
 Conservation Commission Fax: (413) 442-8043  
 City Hall  
 70 Allen Street  
 Pittsfield, MA 01201

**A.7.2 Great Barrington**

Great Barrington Board of Selectmen (413) 528-1619  
 Margaret F. Beckwith, Chair  
 Town Hall  
 334 Main Street  
 Great Barrington, MA 01230

Burke LaClair, Town Manager (413) 528-1623  
 Town Hall Fax: (413) 528-2290  
 334 Main Street  
 Great Barrington, MA 01230

Board of Health (413) 528-8310  
 Town Hall  
 334 Main Street  
 Great Barrington, MA 01230

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

William Brinker, Chair (413) 528-3458  
 Conservation Commission  
 Town Hall  
 334 Main Street  
 Great Barrington, MA 01230

**A.7.3 Lee**

Lee Board of Selectmen (413) 243-5500  
 Nelson Daley, Chair Fax: (413) 243-5523  
 Town Hall  
 32 Main Street  
 Lee, MA 01238

Board of Health (413) 243-5540  
 Town Hall  
 32 Main Street  
 Lee, MA 01238

Conservation Commission (413) 243-2100  
 Town Hall  
 32 Main Street  
 Lee, MA 01238

**A.7.4 Lenox**

Lenox Board of Selectmen (413) 637-5000  
 Robert Akroyd, Chair  
 Town Hall  
 6 Walker Street  
 Lenox, MA 01238

Gregory T. Federspiel, Town Manager (413) 637-5500  
 Town Hall Fax: (413) 637-5518  
 6 Walker Street  
 Lenox, MA 01238

Board of Health (413) 245-5540  
 Town Hall  
 6 Walker Street  
 Lenox, MA 01240

Conservation Commission (413) 637-1958  
 Town Hall  
 6 Walker Street  
 Lenox, MA 01240

## CONTACTS, INTERESTED PARTIES, AND MEDIA LIST

**A.7.5 Sheffield**

Sheffield Board of Selectmen (413) 229-2335  
 Richard Kirchner, Chair Fax: (413) 229-7010  
 Town Hall  
 P.O. Box 325  
 21 Depot Square  
 Sheffield, MA 01257

Board of Health (413) 229-2335  
 Town Hall  
 P.O. Box 325  
 21 Depot Square  
 Sheffield, MA 01257

Conservation Commission (413) 229-2335  
 Town Hall  
 P.O. Box 325  
 21 Depot Square  
 Sheffield, MA 01257

**A.7.6 Stockbridge**

Stockbridge Board of Selectmen (413) 298-4714  
 J. Cristopher Irsfeld, Chair Fax: (413) 298-4485  
 Town Hall  
 P.O. Box 417  
 6 Main Street  
 Stockbridge, MA 01262

Board of Health (413) 298-4880  
 Town Hall  
 P.O. Box 417  
 6 Main Street  
 Stockbridge, MA 01262

Conservation Commission (413) 298-4714  
 Town Hall  
 P.O. Box 417  
 6 Main Street  
 Stockbridge, MA 01262

CONTACTS, INTERESTED PARTIES, AND MEDIA LIST

**A.8 INTEREST GROUPS**

Berkshire Natural Resources Council  
20 Bank Row  
Pittsfield, MA 01201

Housatonic River Restoration, Inc.  
113 Division St., P.O. Box 472  
Great Barrington, MA 01230

Housatonic River Initiative  
Box 321  
Lenoxdale, MA 01242

Housatonic Valley Association  
P.O. Box 1885-Lenox Station  
Lenox, MA 01240

Nature Conservancy  
P.O. Box 268  
Sheffield, MA 02157

Residents Environmental Action League  
50 Longview Terrace  
Pittsfield, MA 01201

Berkshire County Chamber of Commerce  
40 Shore Dr.  
Pittsfield, MA 01201

Citizens for PCB Removal  
130 Harryel Street  
Pittsfield, MA 01201

Housatonic River Commission  
17 Sackett Hill Road  
Warren, CT 06754

Connecticut Fund for Environment  
1032 Chapel Street  
New Haven, CT 06510

Housatonic Valley Association  
150 Kent Rd.  
P.O. Box 28  
Cornwall Bridge, CT 06754

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

Housatonic Environmental Action League  
P.O. Box 21  
Cornwall Bridge, CT 06754

Schaghticoke Nation  
601 Main Street  
Monroe, CT 06468

Connecticut Counsel of Trout Unlimited  
384 Litchfield Road  
Watertown, CT 06795

Northwestern CT Council of Government  
17 Sackett Hill Road  
Warren, CT 06754

Housatonic Rainbow Club  
16 Clough Road  
Waterbury, CT 06768

Lake Lillinonah Authority  
74 Higgins Highway  
Mansfield, CT, 06250  
22 Hidden Brook Road  
Brookfield, CT 06804

Housatonic Fly Fishermans Association  
P.O. Box 5092  
Hampton, CT 06518

Lake Housatonic Authority  
P.O. Box 26  
Derby, CT 06418

Housatonic Rainbow Club  
P.O. Box 242  
Kent, CT 06757

Candlewood Lake Authority  
P.O. Box 37  
Sherman, CT 06785

Lake Zoar Authority  
P.O. Box 127  
Stevenson, CT 06491

Kent Land Trust  
P.O. Box 601  
Kent, CT 06757

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

Grassroots Coalition  
4 Old Mill Lane  
New Milford, CT 06776

Washington Environmental Council  
5 Old Litchfield Road  
Washington, CT 06793

Hudson Riverkeeper  
P.O. Box 130  
Garrison, NY 10524

Scenic Hudson, Inc.  
9 Vassar Street  
Poughkeepsie, NY 12601

**A.9 GENERAL ELECTRIC COMPANY REPRESENTATIVES**

Mike Carroll  
GE Corporate Environmental Programs  
100 Woodlawn Avenue  
Pittsfield, MA 01201

**A.10 NEWSPAPERS****A.10.1 Massachusetts**

Adam Gorlick (413) 781-0217  
Trudy Tynan Fax: (413) 781-3749  
Associated Press  
1391 Main Street, Suite 520  
Springfield, MA 01103

The Boston Globe (617) 929-2000  
135 Morrissey Blvd. Fax: (617) 929-3186  
P.O. Box 2378  
Boston, MA 02107-2378

Janet Welsh (617) 426-3000  
Dan Rosenfeld Fax: (617) 542-1315  
The Boston Herald  
P.O. Box 2096, One Herald Square  
Boston, MA 02106-2096

Judith Monachina (413) 637-8840  
The Advocate Fax: (413) 637-8841  
P.O. Box 95  
Williamstown, MA 02167

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

Jack Dew	(413) 496-6215
Berkshire Eagle	Fax: (413) 499-3419
Eagle Office and Technical Park	
75 S. Church Street	
Pittsfield, MA 01202	
Bill Knittle	(413) 528-5380
Berkshire Record	Fax: (413) 528-9449
21 Elm Street	
Great Barrington, MA 01230	
Pam Belluck	(617) 227-6188
The New York Times Boston Bureau	Fax: (617) 227-6984
2 Faneuil Hall Marketplace	
Boston, MA 02109	
Jonathon Levine	
Pittsfield Gazette	(413) 443-2010
P.O. Box 2236	Fax: (413) 443-2445
Pittsfield, MA 01202	
North Adams Transcript	(413) 663-3741
American Legion Drive	Fax: (413) 662-2792
North Adams, MA 01247	
George C. Jordan	
Berkshire Beacon	(413) 637-2250
P.O. Box 541	Fax: (413) 637-2250
Lenox, MA 01240	

**A.10.2 Connecticut**

Connecticut Post	(203) 330-6208
410 State Street	Fax: (203) 384-1158
Bridgeport, CT 06604	
Wallingford Voice	(203) 269-1496
174 Center Street	Fax: (203) 294-1827
Wallingford, CT 06492	
Ruth Epstein	(860) 435-9873
Lakeville Journal	Fax: (860) 435-0146
33 Bissell Street, P.O. Box 1688	
Lakeville, CT 06039	
Litchfield County Times	(877) 833-1365
32 Main Street	Fax: (860) 354-8706
New Milford, CT 06776	



**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

Waterbury Republican-American 389 Meadow Street Waterbury, CT 06702	(203) 574-3636 Fax: (203) 596-9277
Register Citizen 490 Water Street Torrington, CT 06790	(860) 489-3121 Fax: (860) 489-6790
Journal Inquirer P.O. Box 510, 306 Progress Drive Manchester, CT 06045-0510	(860) 646-0500 (800) 237-3606 Fax: (860) 646-9867
Waterbury Inquirer P.O. Box 1260, 3281 Main Street Hartford, CT 06143-1260	(860) 522-1462 Fax: (860) 522-3014

**A.10.3 New York**

Fred LeBrun Dina Capiello The Albany Times Union P.O. Box 15000 Albany, NY 12212	(518) 454-5453 (518) 454-5694 Fax: (518) 454-5628
Mike McCagg Daily Freeman 75 Bridge Street Catskill, NY 12414	(518) 943-2966 Fax: (518) 943-2961
Bill Hammond The Daily Gazette Albany Bureau 100 State Street, Suite 300 Albany, NY 12207	(518) 432-4391 Fax: (518) 432-6388
Tom Woodman The Daily Gazette Schenectady Bureau P.O. Box 1090 Schenectady, NY 12301-1090	(518) 374-4141 (518) 395-3121 Fax: (518) 395-3089
Doug Martin The New York Times 229 West 43 <sup>rd</sup> Street New York, NY 10036	(212) 556-1234 Fax: (212) 556-3717
Bill Carley Wall Street Journal 200 Liberty Street New York, NY 10281	(212) 416-3258 Fax: (212) 416-4155

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST****A.10.4 Other States**

Cory Kilgannan (914) 328-2754  
The New York Times Fax: (914) 949-2613  
235 Main Street  
White Plains, NY 10601

Mathew Wald  
Doug Jehl (202) 862-0300  
The New York Times Fax: (202) 862-0340  
Washington Bureau  
1627 I Street, NW  
Washington, DC 20006-4085

**A.11 TELEVISION STATIONS****A.11.1 Massachusetts**

Assignment Editor (617) 630-5025  
NECN Fax: (617) 630-5055  
160 Wells Avenue  
Newton, MA 02459

WBGY Channel 57 (413) 781-2801  
44 Hampden Street Fax: (413) 731-5093  
Springfield, MA 01103

WBZ Channel 4 CBS (617) 787-7000  
1170 Soldiers Field Road Fax: (617) 254-6383  
Boston, MA 02134

WCVB Channel 5 ABC (781) 449-0400  
5 TV Place Fax: (781) 449-6681  
Needham, MA 02194

WFXT Channel 25 FOX (781) 467-1300  
25 Fox Drive Fax: (781) 467-7213  
Dedham, MA 02027

WGBH Channel 2 PBS (617) 300-2000  
"Greater Boston" Fax: (617) 300-1031  
125 Western Avenue  
Boston, MA 02134

WGBX Channel 44 PBS (617) 300-2000  
125 Western Avenue Fax: (617) 300-1031  
Boston, MA 02134

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

Andy Hiller  
WHDH Channel 7 NBC  
7 Bulfinch Place  
Boston, MA 02114

Fax: (617) 725-0777  
(617) 723-6117

WLVI Channel 56 WB  
75 Morrissey Boulevard  
Boston, MA 02125

Fax: (617) 265-5656  
(617) 287-2872

Assignment Editor  
TV 22 News  
1 Broadcast Center  
Chicopee, MA 01013

Fax: (413) 786-7500  
(413) 377-2261

**A.11.2 New York**

Debra Cerrick  
CNN  
5 Penn Plaza  
New York, NY 10001

Fax: (212) 714-5706  
(212) 714-7935

Kathy Barrons  
Rick Tissaine

(518) 436-8477 x300

Steve Scoville  
WNYT Channel 13  
15 North Pearl Street  
Menands, NY 12204

Fax: (518) 436-4791  
(518) 434-0659

Susan LeClair  
WTEN Channel 10 ABC  
341 Northern Boulevard  
Albany, NY 12204

Fax: (518) 436-4822  
(518) 462-6065

Peter Brancato  
WRGB Channel 6 CBS  
1400 Balltown Road  
Schenectady, NY 12309

Fax: (518) 381-4988  
(518) 346-6249

**A.11.3 Connecticut**

WBNE Channel 59 WB  
8 Elm Street  
New Haven, CT 06510

(203) 782-5900

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

WEDH Channel 24 PBS	(860) 278-5310
WEDN Channel 53 PBS	Fax: (860) 244-9624
WEDY Channel 65 PBS	
240 New Britain Avenue	
Hartford, CT 06106	
WEDW Channel 49 PBS	(203) 965-0440
307 Atlantic Street	Fax: (203) 965-0447
Stamford, CT 06901	
WFSB Channel 3	(800) 223-8683
3 Constitution Plaza	(800) 244-1700
Hartford, CT 06103	Fax: (860) 728-0263
WTIC Channel 61	(860) 527-6161
One Corporate Center	Fax: (860) 727-0158
Hartford, CT 06103	
WTNH Channel 8 ABC	(203) 784-8888
P.O. Box 1859	Fax: (203) 787-9698
New Haven, CT 06508	

**A.12 RADIO STATIONS****A.12.1 Massachusetts**

Tom Conklin	(413) 499-3333
WBCE	Fax: (413) 442-1590
P.O. Box 958	
Pittsfield, MA 01202	
Len Bean	(413) 442-1553
WBRK/WRCZ	Fax: (413) 445-5294
100 North Street	
Pittsfield, MA 01201	
Karen Miller	(617) 353-0770
WBUR	Fax: (617) 353-9380
890 Commonwealth Avenue	
Boston, MA 02215	
Dianne Stern	(617) 787-7204
WBZ	(617) 787-7000
1170 Soldiers Field Road	Fax: (617) 787-7060
Boston, MA 02134	

## CONTACTS, INTERESTED PARTIES, AND MEDIA LIST

WERS 180 Tremont Street Boston, MA 02116	(617) 578-8890 Fax: (617) 824-8804
WEZE/WROL P.O. Box 9121 Quincy, MA 02171	(617) 328-0880 Fax: (617) 328-0375
Bob Paquette WFCR Hampshire House U. Mass Amherst, MA 01003-3630	(413) 545-4272 Fax: (413) 545-2546
WGBH 125 Western Avenue Boston, MA 02134	(617) 300-2000 Fax: (617) 300-1031
WILD 90 Warren Street Boston, MA 02119	(617) 427-2222 Fax: (617) 427-2677
WJIB 443 Concord Avenue Cambridge, MA 02138	(617) 868-7400
Ron Plock/Rich Callan WNAW 466 Curran Highway North Adams, MA 01247	(413) 663-6567 Fax: (413) 662-2143
WRBB Northeastern U. 360 Huntington Avenue Boston, MA 02115	(617) 373-8400 Fax: (617) 373-5095
WRKO/WBMX 20 Guest Street, 3 <sup>rd</sup> Floor Boston, MA 02135	(617) 779-3400 Fax: (617) 779-3555
Dick Lindsey WSBS P.O. Box 297 425 Stockbridge Road Great Barrington, MA 01230	(413) 528-0860 Fax: (413) 528-2162
Larry Kratka WUPE /WUHN P.O. Box 1265 Pittsfield, MA 01202	(413) 499-1100 Fax: (413) 499-1800

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

WUMB (617) 287-6900  
 100 Morrissey Blvd. Fax: (617) 287-6916  
 Boston, MA 02125

WZLX (617) 267-0123  
 Prudential Tower #2450 Fax: (617) 267-2804  
 Boston, MA 02199

**A.12.2 Connecticut**

WCCC (860) 525-9222  
 1039 Asylum Avenue Fax: (860) 246-9084  
 Hartford, CT 06105

WFAR (203) 748-0001  
 25 Chestnut Street Fax: (203) 746-4262  
 Danbury, CT 06810

WINE/WPUT (203) 775-1212  
 1004 Federal Road Fax: (203) 775-6452  
 Danbury, CT 06804

WLAD/WDAQ (203) 744-4800  
 198 Main Street Fax: (203) 778-4655  
 Danbury, CT 06810

WXCI (203) 837-8635  
 181 White Street  
 Danbury, CT 06810

**A.12.3 New York**

Stacey Shannon (518) 456-6101  
 WABY Fax: (518) 783-2687  
 11 Dennis Terrace  
 Schenectady, NY 12303

Joe Donahue (518) 465-5233  
 WAMC Fax: (518) 432-0991  
 318 Central Avenue  
 P.O. Box 66600  
 Albany, NY 12206

Rick Robinson (518) 782-1474  
 WGNA Fax: (518) 782-1486  
 800 New Loudon Road, Suite 4200  
 Latham, NY 12110

**CONTACTS, INTERESTED PARTIES, AND MEDIA LIST**

News Director  
WGY  
1 Washington Square  
Albany, NY 12205

(518) 452-4848  
Fax: (518) 452-4859

---

**ATTACHMENT B**

**GLOSSARY**

---



## ATTACHMENT B

### GLOSSARY

<b>Acetone</b>	A colorless, volatile, extremely flammable liquid, capable of being mixed with water, used as a solvent and reagent.
<b>Acute Exposure</b>	A single exposure to a toxic substance which results in severe biological harm or death. Acute exposures are usually characterized as lasting no longer than a day, as compared to longer, continuing exposure over a period of time.
<b>Administrative Consent Order</b>	A legal agreement signed by the government (e.g., EPA or MDEP) and an individual, business, or other entity through which the violator agrees to pay for correction of violations, take the required corrective or cleanup actions, or refrain from an activity. It describes the actions to be taken, may be subject to a comment period, applies to civil actions, and can be enforced in court.
<b>Administrative Order</b>	A legal document signed by the government (e.g., EPA or MDEP) directing an individual, business, or other entity to take corrective action or refrain from an activity. It describes the violations and actions to be taken, and can be enforced in court. Such orders may be issued, for example, as a result of an administrative complaint whereby the respondent is ordered to pay a penalty for violations of a statute.
<b>Aluminum</b>	Aluminum is a naturally occurring metal that makes up about 8% of the surface of the earth. It is always found combined with other elements in the earth such as minerals, rocks, and soils. Aluminum metal is silver-white and flexible. It is often used in cooking utensils, containers, and appliances, and building materials. It is used in paints and fireworks, and to produce glass, rubber, and ceramics.
<b>Background Level</b>	1. The concentration of a substance in an environmental media (air, water, or soil) that occurs naturally or is not the result of human activities. 2. In exposure assessment, the concentration of a substance in a defined control area during a fixed period of time before, during, or after a data-gathering operation.
<b>Benthic organism</b>	A form of aquatic plant or animal life that lives on or near the bottom of a stream, lake, or ocean.
<b>Bioaccumulation/ Biomagnification</b>	A process where chemicals are retained in fatty body tissue and increase in concentration over time. Biomagnification is the

## GLOSSARY

	increase of tissue accumulation in species higher in the natural food chain as contaminated food species are eaten.
<b>Bushing</b>	An electrical term meaning a lining for a hole, intended to insulate and protect from abrasion one or more conductors that pass through it.
<b>Brownfields</b>	Brownfields are abandoned or under-used industrial and commercial sites where expansion or redevelopment is complicated by real or perceived environmental contamination. After these sites are investigated under the Superfund program and either found to be clean or cleaned up by state programs, these sites are available for economic redevelopment. They can be in urban, suburban, or rural areas. EPA's Brownfields initiative helps communities mitigate potential health risks and restore the economic viability of such areas or properties.
<b>Calcium</b>	A chemical element used in metallurgy as an alloying agent for aluminum-bearing metal, as an aid in removing bismuth from lead, as a deoxidizer in steel manufacture, and also as a cathode coating in some types of photo tubes.
<b>Cap</b>	A layer of clay, or other impermeable material installed over the top of an area to prevent entry of rainwater and minimize leachate.
<b>Capacitor</b>	An electrical device also known as an electrical condenser. The device consists of two conductors insulated from each other by a dielectric. The device introduces a charge into a circuit, stores electrical energy, blocks the flow of direct current, and permits the flow of alternating current.
<b>Carcinogenicity</b>	The action of certain chemicals in producing or tending to produce cancer.
<b>Channelization</b>	Straightening and deepening streams so water will move faster, a marsh-drainage tactic that can interfere with waste assimilation capacity, disturb fish and wildlife habitats, and aggravate flooding.
<b>Chromium</b>	A heavy metal (see metals).
<b>Chronic Exposure</b>	Long-term, low-level exposure to a toxic chemical.
<b>Citizens Coordinating Council</b>	A group comprised of members of the community who meet on a regular basis with government agencies to receive up-to-date information about the status of cleanup activities, as well as discuss community views and concerns about the cleanup process

## GLOSSARY

with government agency representatives and other parties involved in the cleanup of a site.

<b>Cleanup</b>	Actions taken to address a release or threatened release of hazardous substances that could affect public health or the environment. The term is often used broadly to describe various response actions or phases of remedial responses, such as the remedial investigation/feasibility study.
<b>Coal gasification</b>	Conversion of coal to a gaseous product (similar to natural gas) by one of several available technologies.
<b>Coal tar</b>	Byproduct of the coal gasification process. A tar waste containing several hundred organic chemicals that is obtained from carbonization of coal, usually in coke ovens or retorts.
<b>Community Relations</b>	The effort to establish two-way communication with the public to create an understanding of technical programs and related actions, to assure public input into decision-making processes related to affected communities, and to make certain that EPA and MDEP are aware of and responsive to public concerns. Specific community relations activities are required in relation to CERCLA/Superfund remedial actions.
<b>Community Relations Plan</b>	A formal plan for EPA community relations and involvement activities.
<b>Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)</b>	A federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The Acts created a special tax that goes into a Trust Fund, commonly known as the Superfund, used to finance the investigation and cleanup of abandoned or uncontrolled hazardous waste sites. Department of Defense cleanups are funded from the defense budget.
<b>Consent Decree</b>	A judicial enforcement order agreed to by all parties, which may or may not include a penalty, not subject to appeal.
<b>Degrade</b>	The reduction of the complexity of a chemical compound by splitting off one or more groups or larger component parts.
<b>Dielectric fluid</b>	A liquid which is an electrical insulator or in which an electric field can be sustained with a minimum dissipation (waste) in power. PCBs were used in dielectric fluid mixtures.
<b>Dioxins</b>	A family of compounds known chemically as dibenzo-p-dioxins. Concern about dioxins arises from their potential toxicity and presence in commercial products. Tests on laboratory animals

## GLOSSARY

indicate that they are some of the more toxic man-made compounds.

**Drum**

A hollow, cylindrical container used to transport and store either liquids or solids in the form of raw ingredients, hazardous waste products, or contaminated soils. A metal cylindrical shipping container for liquids having a capacity of 12 to 110 gallons. Fifty-five gallon drums are the most common size.

**Feasibility Study**

A description and analysis of the practicability of the potential cleanup alternatives for a site. The feasibility study usually recommends selection of a cost-effective alternative based on evaluation of a number of feasible alternatives. It usually starts as soon as the remedial investigation is underway; together, they are commonly referred to as the RI/FS.

**Floodplain**

The flat or nearly flat land along a river or stream or in a tidal area that is covered by water during a flood.

**Food chain**

A sequence of organisms, each of which uses the next, lower member of the sequence as a food source.

**Furans**

A colorless, mildly toxic liquid which is soluble in alcohol and ether. Furans are used as a chemical intermediate.

**Groundwater**

Underground water that fills pore spaces in soils or openings (e.g., fractures) in rocks to the point of saturation. This can be the supply of fresh water found beneath the Earth's surface, usually in aquifers, which supply wells and springs. Because groundwater is a major source of drinking water, there is growing concern over contamination from leaching agricultural or industrial pollutants or leaking underground storage tanks.

**Hazard Ranking System**

The principal screening tool used by the EPA to evaluate risks to public health and the environment associated with abandoned or uncontrolled hazardous waste sites. The Hazard Ranking System calculates a score based on the potential of hazardous substances spreading from the site through the air, surface water, or groundwater, and on other factors such as density and proximity of human population. This score is the primary factor in deciding if the site should be on the National Priorities List and, if so, what ranking it should have compared to other sites on the list.

**Herbicides**

A class of chemical compounds designed to control or destroy plants, weeds, or grasses.

**Housatonic River Initiative**

A citizens advisory group composed of Berkshire County residents, including a state representative, scientists, naturalists,

## GLOSSARY

	<p>conservation commissioners, and others, who take an active role in the cleanup of the GE Pittsfield Disposal Sites and the Housatonic River. The group's efforts to focus attention on the cleanup of PCBs include holding monthly meetings and producing a newsletter.</p>
<b>Hazardous and Solid Waste Amendments of 1984 (HSWA)</b>	<p>U.S. Public Law 98-616 amendments to the Resource Conservation and Recovery Act (RCRA, 1976). These amendments significantly expanded both the scope and regulatory control under RCRA for hazardous waste handling and disposal. HSWA included provisions for addressing corrective actions for releases, for imposing a land-disposal ban on certain wastes (particularly liquids), and for imposing a time frame for retrofitting or properly closing surface impoundments. HSWA also established minimum technological standards for new land disposal facilities and incinerators, established new regulations for generators of small quantities and operators of underground storage tanks, and gave EPA authority to expedite permits for new/innovative treatment technologies and to foster research and development of alternative treatment technologies.</p>
<b>Information Repository</b>	<p>A file containing current information, technical reports, reference documents, and Technical Assistance Grant application information on a CERCLA/Superfund site. The information repository is usually located in a public building that is convenient for local residents, such as a public school, city hall, or library. The information repository includes the administrative record file. The administrative record includes all documents that EPA considered or relied on in selecting the response action at a CERCLA/Superfund site, culminating in the record of decision for remedial action.</p>
<b>Inorganics</b>	<p>Pertaining to or composed of chemical compounds that do not contain carbon and hydrogen as the principal elements (excepting carbonates, [e.g., limestone] cyanides, and cyanates), that is, matter other than plant or animal.</p>
<b>Iron</b>	<p>A silvery-white metallic element. It is a heavy, magnetic, malleable metal occurring in meteorites and combined in a wide range of ores, soils, and most igneous rocks. It is one of the most widely used metals, and plays a role in biological processes.</p>
<b>Landfill</b>	<p>A disposal site where solid wastes are buried in layers of earth.</p>
<b>Lead</b>	<p>A heavy metal that is hazardous to health if breathed or swallowed. Its use in gasoline, paints, and plumbing compounds has been sharply restricted or eliminated by federal laws and regulations.</p>

## GLOSSARY

<b>Massachusetts Contingency Plan (MCP)</b>	These regulations (310 CMR 40.00) were first promulgated under M.G.L. c.21E (The Massachusetts Superfund Law) in 1988. The MCP was extensively revised in October 1993 and has undergone additional minor modifications several times since then. The regulations provide for the protection of health, safety, public welfare, and the environment by establishing requirements for the assessment of the nature and extent of contamination caused by releases or threats of releases of oil and hazardous materials, by providing for evaluation of the threats and risks posed by the releases, and by providing for the abatement, prevention, and cleanup of releases.
<b>Memorandum of Understanding (MOU)</b>	A legal agreement signed by MDEP and EPA in June 1992 to provide for the coordination of the implementation of remedial actions required to be taken by General Electric/Pittsfield pursuant to EPA's RCRA Corrective Action Permit and MDEP's May and June 1990 Consent Orders. This MOU was the result of an appeal of the Corrective Action Permit by MDEP and also contains provisions for the orderly resolution of any disputes that may arise between MDEP and EPA during the implementation of the permit and Consent Orders.
<b>Heavy Metals</b>	Metallic elements with high atomic weights, e.g., mercury, chromium, cadmium, arsenic, and lead. At certain concentrations, they can damage living organisms and tend to accumulate in the food chain.
<b>Methylene chloride</b>	A colorless liquid, volatile, practically nonflammable and nonexplosive; used as a refrigerant in centrifugal compressors, a solvent for organic materials, and a component in nonflammable paint-remover mixtures. Humans acutely exposed to methylene chloride experience adverse effects of the central nervous system and the heart. Animal studies indicate acute exposures to high levels of methylene chloride can adversely affect the liver and the kidney.
<b>Migration</b>	Movement of a topographic feature, population, or contaminant from one place to another, for example, movement of a sand dune by wind action, or a contaminant from surface soil into groundwater.
<b>Mineral oil</b>	A highly refined, colorless, tasteless, and odorless petroleum oil used medicinally as an internal lubricant and for the manufacture of salves and ointments. Also known as medicinal oil.
<b>Mitigation</b>	Measures taken to reduce adverse impacts on the environment.

## GLOSSARY

<b>Monitor Well</b>	A well used to obtain water quality samples or to measure groundwater levels. Also, wells drilled at CERCLA/Superfund sites to collect groundwater samples for the purpose of physical, chemical, or biological analysis to determine the amounts, types, and distribution of contaminants in the groundwater beneath the site.
<b>National Priorities List</b>	The EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under CERCLA/Superfund. The list is based primarily on the score a site receives from the Hazard Ranking System. EPA is required to update the list at least once a year.
<b>Non-aqueous phase liquid (NAPL)</b>	Non-aqueous phase liquids are hydrocarbon liquids (commonly referred to as oils) that do not readily mix with (separate phase) or dissolve in water (non-aqueous). Typical NAPLs include gasoline, fuel oils, and dry cleaning solvents. NAPLs are often referred to as light (LNAPL) or dense (DNAPL), depending on whether the NAPL is lighter or denser than water. LNAPLs tend to float on water, whereas DNAPLs tend to sink in water.
<b>Operable unit</b>	Term for each of a number of separate activities undertaken as part of a CERCLA/Superfund site cleanup.
<b>Ordnance</b>	Military material, such as weapons, ammunition, combat vehicles, and equipment.
<b>Organic compounds</b>	Animal or plant-produced substances containing mainly carbon, hydrogen, nitrogen, and oxygen.
<b>Oxbow</b>	A stream or river meander, having an extreme curvature such that only a neck of land is left between two parts of the stream. The name also applies to the horseshoe-shaped channel of a former meander, left when the stream or river formed a cutoff across a narrow meander neck.
<b>Parts per billion (ppb)</b>	Parts per billion are units of measure typically used to express extremely small concentrations of contaminants in groundwater or surface water. One part per billion is equivalent to 1 microgram per kilogram ( $\mu\text{g}/\text{kg}$ ).
<b>Parts per million (ppm)</b>	Parts per million are a unit of measure for the concentration of a contaminant in another medium (e.g., soil, air, or water). One part per million would be equal to one second in 11 days, or one facial tissue in a stack of facial tissues higher than the Empire State building. Numerically, a part per million is represented as 0.000001 or 1 milligram per kilogram ( $\text{mg}/\text{kg}$ ).

## GLOSSARY

<b>Pesticides</b>	Substances or mixtures of compounds intended for preventing, destroying, repelling, or mitigating any pest (e.g., rodents and insects).
<b>Phenols</b>	Organic compounds that are byproducts of petroleum refining, tanning, and textile, dye, and resin manufacturing. Low concentrations cause taste and odor problems in water; higher concentrations can kill aquatic life and humans.
<b>Polychlorinated biphenyls (PCBs)</b>	A series of 209 hazardous and very stable compounds (congeners) all composed of diphenyl rings with varying degrees of chlorine substitution for the hydrogen atoms. The more chlorinated PCBs have very low solubility in water and, due to a high resistance to chemical and biological breakdown, are extremely stable and persistent in the environment. PCBs tend to bioaccumulate in the foodchain, particularly in fatty tissue and in milk. PCBs have been shown to produce a wide variety of effects in many animals, including severe acne, cancer, liver damage, and reproductive and developmental effects. Monkeys, which are physiologically more similar to humans than other animals, have developed adverse immunological and neurological effects, as well as skin and eye irritations after being fed PCBs. Studies of exposed workers show that PCBs can cause skin problems such as acne and rashes and eye irritation. There are also studies which have reported neurological and behavioral abnormalities in infants born to mothers who ate PCB-contaminated fish. However, in these studies, the mothers' exposures to PCBs were estimated and not measured directly. The neurobehavioral effects reported in these studies are similar to effects seen in monkeys (Integrated Risk Information System, 1994). PCB-containing fluids have been used in a wide variety of industrial applications including use in electrical, heat transfer, and hydraulic systems. Incomplete, low-temperature incineration of PCBs may result in the generation of the more toxic PCDDs and PCDFs.
<b>Polychlorinated Dibenzodioxins/ Polychlorinated Dibenzofurans (PCDDs/ PCDFs)</b>	A class of compounds that accumulate in fatty tissue and that are chemically similar to PCBs. These substances exhibit a stability and long-term persistence in the environment similar to those of PCBs. A wide variety of adverse effects including cancer, liver damage, and immunological and reproductive effects have been observed in laboratory animals exposed to PCDDs/PCDFs. The toxic effects of PCDDs/PCDFs in laboratory animals are reportedly similar to those observed for PCBs, only more pronounced and intensified, and occurring at lower doses. Of the different dioxins and furans, 2,3,7,8-tetrachlorodibenzodioxin (2,3,7,8-TCDD) is the most toxic. In humans, exposures to PCDDs/PCDFs have been shown to produce skin irritations. There is also limited scientific evidence suggesting an association



## GLOSSARY

	<p>in humans between exposure to PCDDs/PCDFs and increased cancer. PCDFs are found as contaminants in PCB fluids and are formed during manufacture or when the fluids are used in high-temperature applications. PCDDs and PCDFs are also believed to form during the incomplete, low-temperature burning (below 700 °C) of PCBs and other organic compounds found in industrial and municipal wastes.</p>
<b>Polynuclear aromatic hydrocarbons (PAHs)</b>	<p>A group of over 100 different organic compounds that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat. PAHs are usually found in soot as a mixture containing two or more of these compounds. Some PAHs are manufactured. These pure PAHs usually exist as colorless, white, or pale yellow-green solids. PAHs are found in coal tar, crude oil, creosote, and roofing tar, and a few are used in medicines or to make dyes, plastics, and pesticides.</p> <p>These compounds have low solubilities in water and moderate persistence in the environment. Dissolved PAHs are toxic to aquatic organisms at concentrations generally between 0.1 and 0.5 ppm. A high incidence of oral, dermal, and liver tumors have been observed in bottom-dwelling fish inhabiting areas containing PAH-contaminated sediments. In low concentrations, PAHs have been shown to affect the growth, development, and feeding rates of aquatic organisms. The most common and most toxic PAH, benzo(a)pyrene, is a known carcinogen in mammals and has been shown to produce tumors in mice, rats, hamsters, guinea pigs, rabbits, ducks, and monkeys.</p>
<b>Potentially Responsible Party (PRP)</b>	<p>Any individual or company, including owners, operators, transporters, or generators, potentially responsible for, or contributing to, a spill or other contamination at a Superfund site. Whenever possible, through administrative and legal actions, EPA requires PRPs to clean up hazardous sites they have contaminated.</p>
<b>Proposed Plan</b>	<p>A plan for a site cleanup that is available to the public for comment.</p>
<b>Public Comment Period</b>	<p>A time period for the public to review and comment on various documents and agency actions.</p>
<b>Record of Decision</b>	<p>A public document that explains which cleanup alternative(s) will be used at National Priorities List sites.</p>
<b>Remedial Action</b>	<p>The actual construction or implementation phase of a CERCLA/ Superfund site cleanup that follows the remedial design.</p>

## GLOSSARY

<b>Remedial Design</b>	A phase of a CERCLA/Superfund site cleanup that follows the remedial investigation/feasibility study and includes development of engineering drawings and specifications for a site remedial action.
<b>Remedial Investigation</b>	An in-depth investigation designed to gather the data necessary to determine the nature and extent of contamination and to perform a baseline risk assessment to determine the need for any remedial action at a Superfund site. The remedial investigation is usually done in conjunction with the feasibility study. Together, they are referred to as the RI/FS.
<b>Removal Action</b>	A short-term immediate action taken to address a release or threatened release of hazardous substances.
<b>Resource Conservation and Recovery Act (RCRA)</b>	A Federal law that established a regulatory system to track hazardous substances from their generation to disposal. The law (enacted in 1976) requires safe and secure procedures to be used in treating, transporting, storing, and disposing of hazardous substances. Any parties that produce, burn, distribute, or market hazardous-waste-derived fuels are also regulated. Under RCRA, all hazardous wastes must be identified and classified. In addition, RCRA contains requirements concerning the design, installation, and containment of underground storage tanks and for associated groundwater monitoring. Finally, RCRA contains provisions and guidelines concerning hazardous waste management (including recycling, reuse, and treatment), and for solid waste management (including resource recovery and resource conservation systems). RCRA is designed to prevent the creation of new, uncontrolled hazardous waste sites.
<b>Sediment</b>	Soil, sand, and minerals washed from land into water usually after rain. They pile up in reservoirs, rivers, and harbors. In excessive amounts, they can destroy fish-nesting areas and holes of water animals and can cloud the water so that needed sunlight may not reach aquatic plants. Careless farming, mining, and building activities will expose soils, allowing greater than normal amounts to be washed off the land after rainfalls.
<b>Semivolatile organic compound (SVOC)</b>	Any organic compound (chemical containing carbon) characterized by its lesser tendency to evaporate when exposed to air as compared to volatile organic compounds.
<b>Sheetpiling</b>	Sheet metal that is driven vertically into the ground to form a barrier that will obstruct the movement of earth, water, or contaminants.

## GLOSSARY

<b>Short Term Measure (STM)</b>	A remedial measure under the 1988 version of the MCP intended to reduce the risks at a disposal site, or portions of a disposal site, by allowing the implementation of accelerated remedial actions to stabilize, treat, control, minimize, or eliminate releases, prior to the completion of a MDEP-approved cleanup of the entire site.
<b>Sludge</b>	A semi-solid residue from any of a number of air- or water-treatment processes. Sludge can contain hazardous waste.
<b>Solvents</b>	Substances (usually liquid) capable of dissolving or dispersing one or more other substances.
<b>Superfund</b>	The program, operated under the legislative authority of CERCLA and Superfund Amendments and Reauthorization Act, that funds and carries out EPA solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising the cleanup and other remedial actions.
<b>Technical Assistance Grant Program</b>	A grant program that provides funds for qualified citizens' groups to hire independent technical advisors to help them understand and comment on technical decisions relating to CERCLA/Superfund cleanup actions.
<b>Tetrachloroethylene (PCE)</b>	A stable, colorless liquid, nonflammable and nonexplosive, with low toxicity, used as an industrial and dry cleaning solvent and for metal cleaning. Exposure to very high concentrations of tetrachloroethylene can cause dizziness, headaches, sleepiness, confusion, nausea, and difficulty in speaking and walking. EPA considers tetrachloroethylene as an intermediate between a probable and possible human carcinogen. EPA is in the process of revising its cancer risk assessment guidelines and is currently reassessing this pollutant.
<b>Toxic</b>	Harmful to living organisms.
<b>Toxic Chemical</b>	Any chemical listed in EPA rules as "Toxic Chemicals Subject to Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986."
<b>Toxic Substances Control Act (TSCA)</b>	The Toxic Substances Control Act, passed by Congress in 1976, provides the legal basis for regulations concerning all aspects of the manufacture of toxic substances. Establishment and enforcement of such regulations is carried out by EPA.
<b>Transformer</b>	A major component of our electrical distribution system primarily used to convert or step down high alternating current (ac)

## GLOSSARY

voltages needed during long-distance electrical transmission to the low ac voltages used in businesses and private homes. An electrical component consisting of two or more multitrans coils of wire placed in close proximity to cause the magnetic field of one to link to the other; used to transfer electric energy from one or more alternating-current circuits to one or more other circuits by magnetic induction. Large outdoor transformers are typically filled with oils (dielectric fluids) to provide electrical insulation and cooling.

<b>Trichloroethylene (TCE)</b>	A nonflammable liquid used as a solvent and in degreasing metal. Trichloroethylene is a colorless, nonflammable liquid, which is used as an industrial solvent for cleaning metal parts. Drinking or breathing high levels of trichloroethylene may cause nervous system effects, liver and lung damage, abnormal heartbeat, and coma. EPA considers trichloroethylene as an intermediate between a probable and possible human carcinogen. EPA is in the process of revising its cancer risk assessment guidelines and is currently reassessing this pollutant.
<b>Wastewater</b>	The spent or used water from a home, community, farm, or industry that contains dissolved or suspended matter.
<b>Volatile Organic Compounds (VOCs)</b>	Any organic compound (chemical containing carbon) characterized by its greater tendency to evaporate when exposed to air. They are targeted by the EPA for sampling because they pose an inhalation hazard, particularly in basements due to volatilization from shallow contaminated groundwater.
<b>Zinc</b>	A shiny, bluish-white, lustrous metal that is capable of being mixed with water when pure; used in alloys, metal coatings, electrical fuses, and dry cells.

---

**ATTACHMENT C**

**LOCATIONS OF INFORMATION REPOSITORIES AND LOCATIONS  
FOR PUBLIC MEETINGS**

---

# ATTACHMENT C

## LOCATIONS OF INFORMATION REPOSITORIES AND LOCATIONS FOR PUBLIC MEETINGS

### C.1 LOCATIONS OF INFORMATION REPOSITORIES

To provide the public with convenient access to information about the GE/Housatonic River Project, EPA has established several information repositories. The repositories contain current information, technical reports, work plans, fact sheets, and reference documents about the site. EPA has placed the information repositories at different locations along the Housatonic River.

To ensure the effectiveness of the repositories, in recent months, EPA has been reviewing the status of the existing repositories and consulting with members of the CCC and the CT Subcommittee of the CCC. In light of that review and those discussions, EPA has determined that, in the future, relevant information regarding the GE/Housatonic River Project will be made available at the following repository locations:

1. Berkshire Athenaeum Public Library  
Reference Department  
1 Wendell Avenue  
Pittsfield, MA 01201  
Contact: Madeline Kelly  
(413) 499-9480  
Hours: Monday-Thursday —9:00 a.m. to 9:00 p.m.  
Friday—9:00 a.m. to 5:00 p.m.  
Saturday—10:00 a.m. to 5:00 p.m.  
Summer Hours (July/ August):  
Monday, Wednesday, and Friday—9:00 a.m. to 5:00 p.m.  
Tuesday and Thursday—9:00 a.m. to 9:00 p.m.  
Saturday—10:00 a.m. to 5:00 p.m.

**LOCATIONS OF INFORMATION REPOSITORIES  
AND LOCATIONS FOR PUBLIC MEETINGS**

2. Simon's Rock College of Bard Library  
84 Alford Road  
Great Barrington, MA 01230  
Contact: Joan Goodkind  
(413) 528-7274  
Hours: Monday-Friday – 8:30 a.m. to Midnight  
Saturday – 10:00 a.m. to Midnight  
Sunday – Noon to Midnight  
Summer and School Break Hours:  
Monday-Friday – 9:00 a.m. to 4:00 p.m.
3. Cornwall Public Library  
30 Pine Street  
Cornwall, CT 06796  
Contact: Virginia Potter  
(860) 672-4959  
Hours: Monday, Tuesday, Thursday – Noon to 5:30 p.m.  
Wednesday – 12:30 p.m. to 8:00 p.m.  
Friday – 9:00 a.m. to 5:30 p.m.  
Saturday – 9:00 a.m. to 1:00 p.m.
4. Kent Memorial Library (Kent Library Association)  
32 North Main Street  
Kent, CT 06757  
Contact: Cynthia Johnson  
(860) 927-3761  
Hours: Monday – Friday: 10:00 a.m. to 5:30 p.m.  
Saturday: 10:00 a.m. to 4:00 p.m.
5. Housatonic Valley Association  
150 Kent Road  
Cornwall Bridge, CT 06754  
Contact: Ruth Marlin  
(860) 672-6678  
Hours: Monday – Friday: 9:00 a.m. to 5:00 p.m.

**LOCATIONS OF INFORMATION REPOSITORIES  
AND LOCATIONS FOR PUBLIC MEETINGS**

EPA also has an extensive internet web site devoted to the GE/Housatonic River Project (<http://www.epa.gov/ne/ge>). On this web site, EPA places current and historical information relevant to the project.

In addition, copies of information related to the GE/Housatonic River Project are maintained in the following agency locations:

1. EPA Records Center  
1 Congress Street, Suite 1100  
Boston, MA 02114  
(617) 918-1440  
Hours: Monday – Friday: 9:00 a.m. to 5:00 p.m.
2. Massachusetts Department of Environmental Protection  
436 Dwight Street, Suite 500  
Springfield, MA 01103  
(413) 784-1100  
Hours: Wednesday: 9:00 a.m. to 12 noon and 1:00 p.m. to 4:00 p.m.
3. Connecticut Department of Environmental Protection  
79 Elm Street  
Hartford, CT 06106  
(860) 424-3714  
Hours: Monday – Friday: 8:30 a.m. to 4:30 p.m.

**C.2 CONSENT DECREE REPOSITORIES**

Copies of the Consent Decree and its appendices are available in the following locations:

1. Berkshire Athenaeum Public Library  
Reference Department  
1 Wendell Avenue  
Pittsfield, MA 01201  
413-499-9488
2. Berkshire County Chamber of Commerce  
66 West Street  
Pittsfield, MA 01201  
413-499-4000
3. Lenox Public Library  
18 Main Street  
Lenox, MA 01240  
413-637-0197



**LOCATIONS OF INFORMATION REPOSITORIES  
AND LOCATIONS FOR PUBLIC MEETINGS**

4. Simon's Rock College of Bard  
84 Alford Road  
Great Barrington, MA 01230  
413-528-7274
5. Berkshire Regional Planning Commission  
1 Fenn Street, Suite 201, 2<sup>nd</sup> Floor  
Pittsfield, MA 01201-6229  
413-442-1521
6. Housatonic River Initiative  
20 Bank Row  
Pittsfield, MA 01201  
413-499-6112
7. Oliver Wolcott Library  
160 South Street/P.O. Box 187  
Litchfield, CT 06759  
860-567-8030
8. Housatonic Valley Association  
150 Kent Road  
Cornwall Bridge, CT 06754  
860-672-6678
9. Cornwall Public Library  
30 Pine Street  
Cornwall, CT 06796  
860-672-6874
10. Kent Memorial Library  
32 North Main Street  
Kent, CT 06757  
860-927-3761

**C.3 RECOMMENDED LOCATIONS FOR PUBLIC MEETINGS**

1. Pittsfield High School  
300 East Street  
Pittsfield, MA 01201  
Contact: Mr. George Wilson, Vice Principal  
(413) 499-9535

Auditorium: Seating for 425 people. A public address system is available but usually not needed because of excellent acoustics.

Library: Seating for 30 to 40 people.

**LOCATIONS OF INFORMATION REPOSITORIES  
AND LOCATIONS FOR PUBLIC MEETINGS**

Both of the rooms are handicapped accessible. Basic audio-visual equipment (e.g., overhead and slide projectors) is available for meeting use. Final authorization for room reservations is approved through the Public Buildings office. Mr. Wilson assists in coordinating meeting room reservations with the meeting planner and the Public Buildings office.

2. Italian American Club  
203 Newell Street  
Pittsfield, MA 01201  
Contact: Gladys Consti  
(413) 499-3871

To request a date/time contact Gladys Consti. The club is not available on Wednesdays. Final authorization for room bookings is given by Club management.

Contact: Donald Lucaroni, President  
(413) 447-9492  
Auditorium (Hall): Seating for 20 to 100 people.

3. Berkshire Athenaeum Public Library  
1 Wendell Avenue  
Pittsfield, MA 01201  
Contact: Joan Johnson  
(413) 499-9484  
Conference room: Seating for 20 to 30 people.  
Auditorium: Seating for 20 to 100 people.

4. Reid Middle School  
950 North Street  
Pittsfield, MA 01201  
Colleen Rossi, Principal  
(413) 448-9620  
Contact: Maintenance  
(413) 499-4477  
Auditorium: Seating for 600 people. The facility is handicapped accessible. Basic audiovisual equipment is available for meeting use.

5. Kent Town Hall  
41 Kent Green Blvd.  
Kent, CT 06757  
Contact: Laurie Seasholes  
(860) 927-4627  
Meeting Room: Seating for 350 people. The facility is handicapped accessible. Basic audiovisual equipment is available for meeting use.

---

**ATTACHMENT D**

**LIST OF SELECTED NEWSPAPER ARTICLES**

---

## ATTACHMENT D

### LIST OF SELECTED NEWSPAPER ARTICLES

This attachment provides a listing of newspaper articles regarding the GE/Housatonic River Site from the *Berkshire Eagle* in Pittsfield, Massachusetts, and the *Boston Globe* in Boston, Massachusetts. The list of articles is provided in reverse chronological order, with the more recent articles first. The articles from the *Berkshire Eagle* were obtained from the Internet (<http://www.berkshireeagle.com>) and through an interlibrary search. The articles from the *Boston Globe* were obtained through a subscription electronic information service, Dialog Corporation and from the Internet (<http://www.boston.com/globe>). The *Berkshire Eagle* listing contains articles from February 1980 through July 2001. The articles from the *Boston Globe* date from July 1980 through August 2001. When the information was available, the edition, section, and page number in which the article appeared have been referenced in the listing. The newspaper clippings, which are presented after the listing of articles, have been selected because they correspond to some of the significant milestones for the GE/Housatonic River Site (see Figure 3-1).

The *Berkshire Eagle* maintains a daily circulation of 30,863 and a Sunday circulation of 34,890. The *Berkshire Eagle* Editor is David Scribner and the Editorial Page editor is William Everhart. The *Boston Globe* maintains a daily circulation of 477,074 and a Sunday circulation of 722,729. The *Boston Globe* Editor is Martin Baron and the Editorial Page editor is Renee Loth. Addresses and telephone numbers of the *Berkshire Eagle* and *Boston Globe* are available in Attachment A.10.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Friday, July 13, 2001	River restoration group releases plan	Housatonic River Restoration has announced the publication of a community-based Housatonic River Education Action Plan.
Friday, June 22, 2001	Board explores design options for GE site	The redevelopment of the PCB-contaminated General Electric Co. site presents opportunities and challenges. One early issue is whether to use existing building foundations or create new foundations for new businesses.  The Pittsfield Economic Development Authority (PEDA), which is developing a master plan for the 52-acre site, wrestled yesterday with this straightforward, yet complicated, question. GE has agreed to demolish the buildings within the site, leaving 775,000 square feet of building foundations or "footprints" dispersed in three general areas.
Saturday, February 3, 2001	State warns people not to eat Goodrich Pond fish	The state yesterday warned people not to eat fish caught in Goodrich Pond after tests revealed the fish caught there contain high levels of toxic PCBs.
Thursday, January 25, 2001	GE working through winter on cleanup of PCBs in river	General Electric Co. has worked through the winter in the Housatonic River, continuing a dredging plan that fell behind schedule during the summer and fall.
Thursday, December 21, 2000	PCB health panel encounters skepticism	Two months after it released a report on the health effects of PCBs, an expert panel convened in Pittsfield on Tuesday night to field questions from the public. But the discussion, far from answering residents' concerns, seemed to raise doubts about the adequacy of the report while exposing long simmering tensions between some environmental advocates and the state Department of Public Health.
Sunday, December 10, 2000	GE uses varying cleanup tactics	On the surface, the Hudson River in New York state and the Housatonic have a great deal in common. Both are rivers that have been heavily contaminated by PCBs left by General Electric.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Wednesday, November 29, 2000	Pittsfield submits report on dump site	The King street dump, a now-closed municipal landfill, has long been suspected of containing PCBs that were used at General Electric's plant in the center of the city.
Tuesday, November 28, 2000	GE files lawsuit charging Superfund provisions are unconstitutional	GE called Superfund -- the federal program that cleans up hazardous waste sites -- "unconstitutional" because its provisions don't provide constitutional due process.
Tuesday, November 28, 2000	Upper Housatonic River watershed proposed as National Heritage Area	Supporters of the Upper Housatonic know the river holds aesthetic and historic value, but they'll have to wait up to three years before Congress decides on whether to designate it a National Heritage Area.
Thursday, November 23, 2000	Cleanup plan still calls for dredging	After months of review and public comment, the U.S. Environmental Protection Agency has announced its final plan to clean a 1.5-mile stretch of the Housatonic River. For the most part, few alterations were made after the details of the cleanup were first proposed in July.
Tuesday, November 21, 2000	Housatonic River cleanup delayed once again by pocket of toxic oil	PCB cleanup in the Housatonic River has again been stalled by the presence of a pocket of toxic oil in the riverbank.
Friday, November 17, 2000	PEDA plans for reuse of GE property	Though millions of dollars in settlement money from General Electric has not yet arrived, the Pittsfield Economic Development Authority is moving along in its plans to redevelop a portion of GE's plant in the center of Pittsfield.
Wednesday, November 8, 2000	EPA pondering cleanup delay	The U.S. Environmental Protection Agency has not yet responded to a request by General Electric Co. to extend the cleanup deadline for a half-mile stretch of the Housatonic River.
Tuesday, November 7, 2000	Initial tests find no PCBs in West Branch of river	Though there is PCB contamination along a strip of riverbank between Dorothy Amos Park and the Housatonic River, it appears that the toxin has not bled from the soil into the river itself, according to preliminary results of tests conducted by the state Department of Environmental Protection.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Sunday, November 5, 2000	With PCB deal finalized, cleanup can start in earnest	For decades, most of the General Electric plant in the center of the city has been unusable, heavily contaminated with PCBs. The Housatonic River, which flows through Pittsfield and winds its way through the Berkshires and into Connecticut, has been similarly tainted.
Saturday, November 4, 2000	Dam removal lets Housatonic flow free	The Housatonic River flowed into its restored channel for the first time since the 19 <sup>th</sup> century yesterday afternoon following a ceremony attended by several state officials to celebrate the removal of Crane & Co.'s Berkshire Mill Dam.
Friday, November 3, 2000	EPA pens comfort letters for residents	The U.S. Environmental Protection Agency has begun the process of issuing homeowners affected by PCB contamination letters that will exonerate them from future liability related to the toxic pollution.
Wednesday, November 1, 2000	City, state look ahead to future of GE site	Four days after a federal judge approved the PCB cleanup agreement, a host of city, state and federal officials gathered to welcome the giant settlement and discuss plans for the future.
Tuesday, October 31, 2000	PEDA at work on GE site plan	Approval of the massive PCB cleanup agreement last Friday frees the Pittsfield Economic Development Authority to begin planning new uses for the 52-acre site that General Electric eventually will turn over to the authority.
Saturday, October 28, 2000	GE, EPA cheer; critics voice dismay	A federal judge's decision to approve the PCB cleanup agreement was greeted warmly by state and federal officials, but with trepidation by those who had challenged the terms of the settlement.
Saturday, October 28, 2000	PCB cleanup gets green light	The mammoth PCB cleanup agreement between the government and General Electric was approved yesterday by a federal judge, paving the way for removal of the toxin from Pittsfield and stretches of the Housatonic River and for an intense investigation into the scope and impact of the contamination in the ecosystem.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Wednesday, October 25, 2000	EPA files response to critics of cleanup	Setting the stage for a showdown in U.S. District Court on Friday, the U.S. Environmental Protection Agency responded to critics of the PCB cleanup agreement Monday, submitting a motion it hopes will convince a judge that the settlement is a sound solution to the heavy contamination here.
Monday, October 23, 2000	GE: Study supports its claims	Signaling that battles over the PCB cleanup of the Housatonic River may lie ahead, General Electric announced Thursday that the results of a recent health study related to the toxin should be taken into account when any future plans are made.
Friday, October 20, 2000	Oil, dirt from road may be polluting river	The U.S. Environmental Protection Agency is investigating the source of oil and dirt found to be seeping into the Housatonic River, and suspects construction on Merrill Road is the culprit.
Thursday, October 19, 2000	Study: PCB blood levels in county are average	Despite heavy PCB contamination in the Housatonic River, residents of the Berkshires have not developed PCB blood levels higher than the national average, according to a state study released yesterday that re-examined the national background level of PCBs in the human population.
Wednesday, October 18, 2000	EPA forming expert panel to review PCB cleanup model	The U.S. Environmental Protection Agency took a step toward diagnosing the ailments of the Housatonic River yesterday, asking the public to nominate candidates to sit on a panel that will evaluate the EPA's computer model of PCB contamination in the river.
Thursday, October 5, 2000	PCB hot spot found beside West St. park	About 150 feet of riverbank that runs alongside a city park is contaminated with PCBs, according to preliminary results from a state investigation into potential pollution in the West Branch of the Housatonic River.
Thursday, October 5, 2000	GE requests deadline extension for cleanup of first part of river	Blaming a host of factors, General Electric has asked that the deadline for completion of PCB removal from a half-mile stretch of the Housatonic River be extended until August.



## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Thursday, September 28, 2000	Clock ticking on PCB settlement motions	Two city groups asking a federal judge to dismiss the PCB cleanup agreement have filed their arguments with the court, and one more group will submit its motion by Monday. The motions are the first stage in a three-part process that will conclude with a judge either accepting or denying the mammoth agreement.
Wednesday, September 27, 2000	Housatonic PCB tests not falsified	The U.S. Environmental Protection Agency said yesterday that tests performed on samples taken from Pittsfield and the Housatonic River were not affected by allegedly falsified reports submitted by a Texas laboratory.
Thursday, September 21, 2000	GE sues gas co. over tar in river	General Electric Co. has brought a lawsuit against Berkshire Gas in an effort to recoup money GE spent removing coal tar from the Housatonic River.
Wednesday, August 23, 2000	PCB cleanups moving briskly at residences	By the end of the year, General Electric Co. will have removed PCB-contaminated soil from about 170 residential properties in Pittsfield and will have cleaned almost all of the properties thus far identified as contaminated.
Saturday, August 12, 2000	Debate rages in Conn. over PCB residue	Though Kent is more than 60 miles from Pittsfield, the same PCBs from the General Electric Co. plant that contaminated the Housatonic River in Berkshire County have sullied the stretch of the river that runs through this small town.
Wednesday, August 9, 2000	River cleanup delayed by rain, high PCB levels	The first phase of a project to rid two miles of the Housatonic River of PCBs has been severely delayed by weather and heavier levels of contamination than expected.
Friday, August 4, 2000	EPA's river study stalled	The slow progress through federal court of the PCB cleanup agreement is delaying the findings of a massive study by the U.S. Environmental Protection Agency to determine the effect of PCB contamination in the lower reaches of the Housatonic River.
Thursday, August 3, 2000	Kennedy visits to see progress of PCB cleanup	U.S. Sen. Edward M. Kennedy made a quick sweep through Berkshire County yesterday on a "mix of business and pleasure," according to his spokesman.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Tuesday, April 11, 2000	Compromise reached on PCB pact	A potential court fight over the consent decree for General Electric Co.'s PCB cleanup of its industrial plant, the Housatonic River and surrounding properties may have been averted, officials said yesterday.
Sunday, March 19, 2000	PCB decree fallout building	One might think people would eventually tire of discussing an issue that has been the subject of sometimes-heated public debate for the past three years.
Friday, March 3, 2000	PCB pact faces more challenges	At least three more groups of city property owners and environmental advocates are considering filing motions in U.S. District Court to block the PCB cleanup settlement with General Electric as opposition to the consent decree widens.
Tuesday, February 29, 2000	Second challenge filed to PCB cleanup decree	Another motion has been filed in opposition to the proposed PCB cleanup settlement, this time by Newell Street business owners who say they will be left with worthless property if the settlement is approved in its current form.
Tuesday, February 29, 2000	Business leaders write letter in support of PCB settlement	A coalition of business leaders, many of whom were vocal opponents of a Superfund cleanup and supported a negotiated PCB settlement two years ago, has sent a statement to The Eagle backing the consent decree.
Sunday, February 27, 2000	Despite criticism, HRI still undaunted	The Housatonic River Initiative, founder and state Rep. Christopher Hodgkins remembered earlier this week, came about in 1992 because "someone needed to wake up in the morning thinking about PCBs in the river."
Wednesday, February 23, 2000	River group moves to halt PCB accord	An environmental advocacy group has challenged the PCB cleanup proposed by General Electric and state and federal agencies in federal court, an act city leaders say could threaten the river cleanup and the redevelopment of the GE site.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Friday, February 18, 2000	GE to sample West Branch of Housatonic	General Electric has offered to sample the West Branch of the Housatonic River for PCB contamination, while at the same time reserving the right to contest whether the state Department of Environmental Protection can order the company to do the tests.
Thursday, December 9, 1999	Cleanup done on first section of East Branch of Housatonic	Three hundred feet down, half a mile to go. That's the state of affairs in the East Branch of the Housatonic River, where the first section of the so-called "first half-mile" cleanup – the section of the river between the Newell Street and Lyman Street bridges – has been completed.
Thursday, December 9, 1999	PCB 'hot spot' found near West Street park	The West Branch of the Housatonic River south of Dorothy Amos Park is contaminated by PCBs, and the state Department of Environmental Protection has asked General Electric to investigate that section of the river in greater detail.
Friday, October 8, 1999	Sign, sealed, delivered	The consent decree setting forth the PCB cleanup agreement between General Electric Co., the Environmental Protection Agency, the city of Pittsfield and other federal and state agencies was signed and put before a federal judge in Springfield yesterday afternoon.
Friday, October 8, 1999	State civil suit settled	State Attorney General Thomas Reilly has announced a \$1.25 million settlement with General Electric Co., putting to rest allegations that the company failed to comply with environmental reporting requirements dealing with properties that received PCB-contaminated fill from the company decades ago.
Thursday, October 7, 1999	PCB cleanup agreement getting final signatures	The written version of the year-old cleanup agreement among General Electric Co., the U.S. Environmental Protection Agency, the state Department of Environmental Protection, the city of Pittsfield and other government agencies has been completed and is in the process of being signed by participating parties.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Friday, August 27, 1999	River ducks full of PCBs	PCB levels in ducks collected along the Housatonic River near Woods Pond last fall by the Environmental Protection Agency were among the highest biologists have ever seen – hundreds of times higher than the federal government considers safe to eat.
Thursday, August 26, 1999	Allendale yard free of PCBs	All contaminated soil at the Allendale School yard was completely removed as of yesterday afternoon, according to General Electric spokesman Gary Sheffer, leaving only restorative work to be done when school starts in September.
Saturday, June 26, 1999	River plan maps out goals for Housatonic	A fishable, swimmable river. That is the goal of Housatonic River Restoration, Inc., a non-profit coalition of 27 county stakeholder groups that has produced a blueprint for attaining it.
Friday, June 25, 1999	Allendale neighbors brace for big dig	Neighbors of Allendale School are bracing for yet another summer of disruption as General Electric gets set to dig out more than 40,000 tons of PCB-contaminated soil from the schoolyard.
Friday, June 25, 1999	Start of work at Allendale awaits final consent decree	The long and contentious PCB cleanup consent decree negotiations reached a critical juncture late this week as all sides struggled to complete the talks in time to start the Allendale School cleanup this summer.
Thursday, June 24, 1999	HRRI releases Housatonic River restoration plan	Eighteen months after first asking Berkshire County residents to describe their vision of a restored Housatonic River, Housatonic River Restoration Inc. has released a 75-page draft restoration plan for public comment.
Wednesday, June 23, 1999	PCB cleanup of schoolyard will be done on fast track	Heavy equipment will be rumbling six days a week this summer as General Electric contractors scramble to complete a major cleanup of the Allendale School playground, which was built on PCB-tainted fill 50 years ago.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Monday, April 12, 1999	EPA studies will decide destiny of Housatonic	While much of the public's focus on the PCB issue for the last six months has been on three long-awaited Pittsfield-area projects, a large group of biologists and technicians are already conducting studies that will lay the groundwork for what's likely to be the most contentious and nationally significant fight of all.
Friday, April 2, 1999	Two major PC cleanups slated to start this summer	An Environmental Protection Agency spokesman said yesterday that despite the slow pace of the PCB consent decree negotiations between the EPA and General Electric, the agency still expects that work will proceed on two major cleanup projects this summer.
Thursday, April 1, 1999	PCB educational groups given funds by DEP	The Department of Environmental Protection has awarded two PCB activist groups \$10,000 each to enable them to hire technical consultants and continue their public education efforts.
Thursday, March 11, 1999	Tracking frogs: Life with PCBs	The wall of plastic fencing around this large puddle of water next to the Housatonic River looks like some forgotten effort by the "wrap artist" Christo.
Thursday, March 11, 1999	EPA cautious on PCB study	The Environmental Protection Agency reacted cautiously yesterday to the release of a major study of General Electric capacitor workers that found no link between exposure to PCBs and diseases like cancer, hypertension, and certain heart and liver diseases.
Wednesday, March 10, 1999	Major study finds no PCB-cancer link	In a major study of health and employment data from more than 7,000 former General Electric workers, researchers for a Washington-based research institute have found no link between PCB exposure and deaths from cancer or other diseases, the institute reported yesterday.
Tuesday, January 26, 1999	GE submits work plan for dredging Housatonic	GE is proposing to remove more than 10,000 cubic yards of river sediment and bank soils during the cleanup of a half a mile of the Housatonic River and its banks this year, according to a consultant's report.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Monday, November 2, 1998	Citizens' council to monitor PCB work	Berkshire politicians, environmentalists, business and community leaders will meet this week to begin the daunting task of setting up a citizen's council to monitor the implementation of the PCB settlement between the Environmental Protection Agency and GE.
Saturday, October 31, 1998	For governor, Paul Cellucci	The campaigns for governor have produced a disappointing dialogue on issues affecting the commonwealth now and in the future, a future that is by no means certain. The problem is that when it comes to issues that matter for the Berkshires, Mr. Harshbarger's confrontational style has betrayed his campaign promises. Had Mr. Harshbarger been governor, it is fair to say, there would be no settlement between General Electric and the Environmental Protection Agency; there would be no redevelopment and cleanup of the 245-acre manufacturing facility; there would be no economic package for Pittsfield; there would not be as expeditious a removal of PCBs from the Housatonic River.
Friday, October 30, 1998	County government and its successor	Question 7 in the 3rd Berkshire District asks the state representative to vote in favor of legislation that would prohibit the state from backing the Environmental Protection Agency in designating General Electric plant and the Housatonic River a Superfund site. The question is not only irrelevant, it is a prime example of meddlesome referendum government. The Eagle urges a No vote as a vote against referendum designed to inhibit the work of government agencies.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Monday, October 26, 1998	The Settlement: Key to a Vision for Pittsfield and the Berkshires	On Sept. 24, 1998, representatives of U.S. EPA, U.S. Department of Justice, the Commonwealth of Massachusetts Department of Environmental Protection, Office of the Attorney General and Executive Office of Environmental Affairs, the State of Connecticut Department of Environmental Protection and Office of the Attorney General, the U.S. Department of Interior, the National Oceanic and Atmospheric Administration, the City of Pittsfield, and the General Electric Company reached a comprehensive agreement relating to GE's Pittsfield facility and the Housatonic River. The agreement in principle provides for cleanup of the Housatonic River and associated areas, cleanup and economic redevelopment of the GE Plant Facility, environmental restoration of the River, compensation for natural resource damages, and government recovery of past and future response costs.
Thursday, October 22, 1998	River advocates press for data on damage estimates	State and federal officials confronted skepticism and frustration yesterday on the part of some environmentalists who want more information on how environmental regulators estimated the amount of long-term damage from PCBs on the Housatonic River and surrounding areas.
Wednesday, October 21, 1998	Newell Street business owners say PCB pact doesn't help them	Business owners whose properties rest on highly contaminated former oxbows of the Housatonic River along Newell Street say that the PCB settlement worked out between the Environmental Protection Agency and General Electric does little for them. From their perspective, the settlement agreement announced Sept. 24 rewards GE for its longstanding unwillingness to clean up their properties. The agreement will only require GE to clean the soil to an average 25 parts per million PCBs in the top three feet. The agreement allows GE to leave an overall average of 200 ppm in the top six feet.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
Date	Headline	Lead Paragraph
Friday, October 16, 1998	Pittsfield Co-op Bank buys lots for planned Dalton Ave. branch	A month ago, Pittsfield Co-Operative Bank said it would be interested in establishing a branch office on Dalton Avenue. "We're very excited because of the recent closure in the PCB issue," Bernier said, referring to the cleanup agreement between the city, environmental regulators and General Electric. "The location is close to the brownfields site, and gives us the opportunity to provide financial services to new businesses and employees."
Friday, October 16, 1998	PEDA takes center stage	What seemed like a pipe dream only months ago is now becoming reality the reviving of the long dormant 250-acre General Electric property in the center of Pittsfield's core. The plan unveiled Wednesday by city leaders and General Electric holds great promise, but it won't realize its potential unless the city aggressively markets the revived property to business and industry, and makes the right choices about what companies should move in.
Friday, October 16, 1998	West St. park reopens after PCB cleanup	City officials and General Electric representatives celebrated the reopening of a completely renovated Dorothy Amos Park yesterday in a small ceremony off West Street. The closing of the small, heavily used park last August after PCBs were found in the soil near playground equipment crystallized public concern about PCB contamination.
Thursday, October 15, 1998	GE brownfields plan unveiled, \$45 million redevelopment is envisioned	City leaders and General Electric yesterday unveiled a \$45 million brownfields redevelopment plan that is expected to breathe life back into 1.5 million square feet of empty office and manufacturing space that was once the heart of the Berkshires' economy.
Wednesday, October 14, 1998	PCB-contaminated land restored after family turns down \$600,000	Merton Amuso of Hathaway Street has not always been happy with General Electric. His Aug. 8, 1996, letter to the editor about potential PCB contamination at his property.



## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Wednesday, October 14, 1998	Ceremony planned tomorrow to mark park improvements	An official ribbon-cutting ceremony will be held at Dorothy Amos Park on West Street tomorrow at 9:30 a.m. Pittsfield Mayor Gerald S. Doyle Jr., Parks Commission Chairman Clifford J. Nilan, and Richard Gates, General Electric's manager of Pittsfield/Housatonic remediation programs, will co-host the event. Neighbors, representatives of area organizations, officials involved in the project from the city, GE and the Department of Environmental Protection, and local dignitaries have been invited.
Saturday, October 10, 1998	Concerns raised about Conn.'s share of PCB settlement money	Rumors that Connecticut will receive the lion's share of the \$15 million natural resource damage payments from General Electric Co. are inaccurate, said Dale Young, a representative of the state Executive Office of Environmental Affairs. On Wednesday, both Young and Bryan Olson, the EPA's project manager, said no decisions had been made as to how the money, part of the \$150 million to \$250 million PCB settlement, should be apportioned. Young said that those decisions would be based on the ecologic value of specific restoration projects throughout the entire river watershed.
Friday, October 9, 1998	PCB cleanup may take 10 years. Settlement includes provisions to aid businesses on Newell Street	Even as lawyers for General Electric, the city, and environmental regulators begin the long process of turning the landmark PCB agreement into a legally binding settlement, company and agency technicians have already begun a massive cleanup and restoration effort that may take a decade to complete. Richard Cavagnero, the Environmental Protection Agency's team leader for the GE/Housatonic site, explained that it may take six months for the consent degree to be completed. By then, source control work on the Upper Reach of the Housatonic River will be well under way, and the engineering plans for next summer's river dredging project and the cleanup of contamination in the Allendale School playground will be rounding into form.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Thursday, October 8, 1998	EPA official says dredging moratorium won't impact Housatonic River cleanup	The compromise PCB dredging moratorium language in the Environmental Protection Agency's budget will allow the cleanup of the Housatonic River to go forward as scheduled, an agency official in Washington said yesterday. The budget report forbids the EPA from undertaking or ordering PCB dredging projects until a report on the costs and benefits of dredging is returned by the National Academy of Sciences sometime after the year 2000.
Thursday, October 8, 1998	PCB settlement details emerge	The Environmental Protection Agency heard the first rumblings of discontent yesterday over its handshake agreement with General Electric to implement what the agency believes will be a quarter-billion dollar package of economic redevelopment, environmental cleanup and restoration for Pittsfield and Berkshire County. Last night, river advocates and several landowners let the agency know that they were unhappy with the part of the agreement that allows GE to landfill the majority of contaminated soil and sediment that will be cleaned up under the deal on the GE plant site.
Thursday, October 8, 1998	State civil suit settled	State Attorney General Thomas Reilly has announced a \$1.25 million settlement with General Electric Co., putting to rest allegations that the company failed to comply with environmental reporting requirements dealing with properties that received PCB-contaminated fill from the company decades ago.

## LIST OF SELECTED NEWSPAPER ARTICLES

BERKSHIRE EAGLE		
Date	Headline	Lead Paragraph
Thursday, October 8, 1998	In Brief. PCB settlement will need protection	Pittsfield has narrowly dodged a bullet. Once again, Senator Edward M. Kennedy has come to the rescue of the negotiated settlement between General Electric and the Environmental Protection Agency. Acting on behalf of GE to blunt cleanup of the Hudson River, a Superfund site since 1984 due to PCB contamination, Republican Congressman Gerald Solomon of New York had inserted a moratorium on river dredging into the EPA's proposed budget authorization, but Mr. Kennedy has made sure that the measure contains compromise language allowing the Housatonic River and New Bedford Harbor cleanup projects to proceed. Mr. Solomon, mercifully, is leaving Congress, but Congress will remain littered with foes of the environment. Legislative vigilance on both the federal and state levels will continue to be necessary if the precedent-setting settlement is not to be undone by opportunists who have not the slightest interest in the Berkshires.
Wednesday, October 7, 1998	Kennedy, Olver say dredging ban won't affect deal	Sen. Edward M. Kennedy and U.S. Rep. John W. Olver say they have blunted PCB-dredging moratorium language tacked onto the Environmental Protection Agency budget just enough to allow dredging of the Housatonic River and New Bedford Harbor to go forward. But the EPA is waiting to evaluate the measure before coming to that conclusion. The budget language, originally proposed by U.S. Rep. Gerald Solomon, R-N.Y., directed the EPA not to dredge PCB-contaminated sediments until the National Academy of Sciences completes a review of the costs and benefits of dredging and other techniques for cleaning contaminated sediments. That report isn't expected until after the year 2000.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Wednesday, October 7, 1998	GE plans to staunch PCB leaks into river	General Electric is proposing to drive barriers of steel sheet piling deep into the Housatonic River's banks next to its plant and begin pumping a pool of underground oil from a former chemical dump nearby to eliminate any existing or future releases of PCBs to the river. GE project manager Jane Magee said the company expected to receive an approval letter from the Environmental Protection Agency yesterday, and begin taking soil borings and installing test wells today.
Tuesday, October 6, 1998	Residents press for talks on PCB cleanup	Now that GE has worked out a landmark PCB settlement with the Environmental Protection Agency and the city, a group of homeowners with PCBs in their soil have renewed their call for the company to settle with them.
Sunday, October 4, 1998	Praise all around for PCB settlement (Letter to the Editor)	Although there are those who would have you believe differently, many members of local environmental groups support the PCB settlement announced last week. While we would always like more, we understand the importance of a total package that gives everyone some satisfaction. Most importantly, our community and river will soon be involved in a cleanup process. Now is a time to say thank you.
Thursday, October 1, 1998	Realtors grateful for pact on PCBs	The city's real estate agents are applauding the Sept. 24 agreement between General Electric and the Environmental Protection Agency to clean up widespread PCB contamination in Pittsfield and the first two miles of the Housatonic River starting this fall. Realtors agreed this week that the landmark settlement, which GE says is worth \$150 million but environmental regulators say is worth \$250 million, will give Pittsfield's economy a badly needed boost. Since last spring, the threat of long delays resulting from a possible designation of the city as a federal Superfund site has had a chilling effect on the real estate market here, according to Richard F. Tucker of Tucker Associates.

## LIST OF SELECTED NEWSPAPER ARTICLES

BERKSHIRE EAGLE		
Date	Headline	Lead Paragraph
Sunday, September 27, 1998	In Brief. Big guys hear from the new kid	Among the significant achievements of the settlement reached this week between the Environmental Protection Agency and the General Electric Company is the rightful place of local community leadership at the bargaining table. Had not the city in the person of Mayor Gerald S. Doyle Jr. and City Council President Thomas Hickey demanded representation; had not the business community united in favor of a settlement; had not local environmental groups insisted on a voice in the proceedings; had not the congressional and state delegations supported the voices of their constituents, negotiations would have proceeded as a dispute between corporate and bureaucratic giants over abstract matters of law and policy, with little regard for what concrete effects those laws and policies would have in the real world of the Berkshires. When millions of dollars are involved and when national precedents are at stake, the voice of the majority from a small city like Pittsfield or the concerns of landowners along a rural river like the Housatonic tend to be ignored. The settlement is indeed precedent setting. From now on Big Government and Big Business must pay heed to the new kid on the block: the leadership of local communities. This is the way it's supposed to work in a democracy.
Friday, September 25, 1998	Area leaders elated, hopeful for future	City leaders say the agreement between the city, GE, and state and federal environmental agencies will provide long-awaited closure and a sizable economic and psychological boost. "I'm overwhelmed by the momentum this city and this county have put forward," Mayor Gerald S. Doyle Jr. said yesterday. Doyle will provide more details of the settlement at a news conference and reception at the Itam Lodge on Waubeek Road today at 5.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Friday, September 25, 1998	Talks had as many twists as the river	The second day of April was a bleak day for Pittsfield Mayor Gerald S. Doyle Jr. The PCB talks had just collapsed. General Electric and the Environmental Protection Agency were girding for battle. The acrid scent of lawsuits hung in the air. And the \$150 million brownfields package Doyle and the city had worked out with GE appeared ready to vanish like the melted snows. More than five months and many twists and turns later, negotiators announced that they had in fact arrived at a precedent-setting package.
Friday, September 25, 1998	A landmark day for Pittsfield, Berkshires	The PCB-cleanup settlement reached by the Environmental Protection Agency, Pittsfield and General Electric is great news for the Berkshires in general and for a city desperately in need of good news in particular.
Friday, September 25, 1998	PCB settlement reached	After eight months of tense negotiations and brinkmanship, GE and environmental regulators announced yesterday that they had reached agreement on how to clean up widespread PCB contamination in Pittsfield and the first two miles of the Housatonic River starting this fall.
Wednesday, September 23, 1998	Extremely high levels of PCBs found on banks of Unkamet Brook near GE	Tests of a stream that flows into the Housatonic River after cutting through a former General Electric landfill have revealed extremely high levels of PCBs along its bank up to 105,000 parts per million in one spot. The soil and stream sediment samples were taken from Unkamet Brook in June during a GE cleanup project that removed corroded drums along with capacitors, bushings, wood block and other debris from the stream bed and banks. The Department of Environmental Protection ordered the cleanup after an inspection revealed drums and capacitors in the stream itself.
Thursday, September 17, 1998	EPA said to have put final offer before GE	With a deadline looming today in the PCB talks, environmental regulators, General Electric and the city worked through the day without success in a final push for an agreement on how to clean up the company's widespread Berkshire County pollution problems.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Wednesday, September 16, 1998	Experts at work studying PCB damage. EPA to open city office	Even as the Environmental Protection Agency negotiates with General Electric over a potential settlement of the corporate giant's widespread PCB problems, scientists and biologists are fanning out across Pittsfield and along the Housatonic River in an attempt to find out how bad the contamination really is. Already this year, EPA staff have taken thousands of samples from the river's mud, its banks, from tributary streams and residential soils suspected of containing polychlorinated biphenyls, which GE used for decades as an insulating fluid in transformers made here.
Tuesday, September 15, 1998	In Brief. PCB settlement must be flexible	Final settlement negotiations between General Electric and the Environmental Protection Agency began yesterday, with the expectation that by the end of this week environmental regulators and company representatives will be able to declare whether they've reached agreement on a program to remove PCB contamination from the 250-acre former manufacturing site and the Housatonic River. A comprehensive settlement is by far the desirable outcome of these talks, avoiding the heavy-handed application of a Superfund process certain to provoke years of litigation, with little assurance the process would be completed.
Friday, September 11, 1998	PCB evaluation requested for 22 more Pittsfield lots	Environmental regulators have asked GE to evaluate another 22 homes for PCB soil testing, including a string of 10 along Elm Street where preliminary testing has revealed high levels of the chemical in the soils of several lots.
Thursday, September 10, 1998	Group meets to discuss future of river	Environmentalists gathered with state and town officials last night to chart a course for the future of the Housatonic River. The discussion led by officials from the Housatonic River Restoration project and hosted by the Lee Selectmen, Conservation Commission and Land Trust was based on the presumption that there will be money from natural resource damages forthcoming from General Electric.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Friday, September 4, 1998	PCB researcher hopes to study Lakewood data	A researcher who has spent years investigating the health effects of PCBs said last night that although the work has raised as many questions as it has produced answers, the residents of Pittsfield's Lakewood neighborhood could help lengthen the answer column.
Friday, August 28, 1998	PCB talks extended to week of Sept. 14	A new and apparently flexible deadline, "the week of Sept. 14," has been set for a settlement between General Electric, the Environmental Protection Agency and other parties in the PCB negotiations. "There are a number of complex issues with significant financial, environmental and public health consequences that continue to separate the parties," reads a prepared statement from EPA regional administrator John P. DeVillars.
Tuesday, August 25, 1998	In Brief. Dealing with county PCB waste sites	It is no surprise that General Electric waste buried during the days of casual environmental laws would turn up in county towns other than Pittsfield. Environmental regulators and GE officials have discovered the obvious, and the next step is dealing with the problem, as is being done in Pittsfield. That Environmental Protection Agency and Department of Environmental Protection officials haven't had the resources to pursue these county leads aggressively provides another argument for a comprehensive settlement. If environmental officials aren't struggling to administer a Superfund cleanup of the Housatonic River and fighting GE in court over Superfund, they will have the time and resources to deal with the waste site problem.
Monday, August 24, 1998	GE records may reveal new PCB locations	Environmental regulators are quietly investigating a slew of suspected new PCB sites, some of them recently disclosed by GE after a review of millions of pages of archived company records.



## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Saturday, August 22, 1998	EPA denies GE's request to expand cleanup permit	The Environmental Protection Agency has denied a request by General Electric to expand the area covered by an existing corrective action permit to include landfill areas contaminated by PCBs. In a July 28 letter, Patricia L. Meaney, director of the New England Office of Site Remediation and Restoration, informed GE that under the Resource Conservation and Recovery Act, the EPA had no authority to regulate areas where contamination was caused by dumping or the deliberate placement of soil tainted with PCBs.
Thursday, August 20, 1998	PCBs parley is extended a fourth time	Negotiations between the Environmental Protection Agency and General Electric Co. were extended for a fourth time yesterday after EPA regional administrator John DeVillars said that the parties were still divided on key issues. Yesterday was to have been the final day for the talks, which have dragged on now in one form or another for more than a year. But with a fresh EPA proposal unveiled to GE this week, the parties decided they needed more time to think things over.
Thursday, August 13, 1998	Solutions debated as PCB talks near deadline	Negotiators from General Electric, the Environmental Protection Agency and a team of local, state and federal agencies continued to fight against time and history yesterday in Boston as they tried to arrive at a solution to GE's wide-ranging PCB problems in Berkshire County by tomorrow's deadline. The discussions were said to be "extremely fluid," according to those familiar with the progress of the talks, with the mediators taking a more active role in suggesting creative solutions.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Tuesday, August 11, 1998	In Brief. PCB settlement must be reached	Two decades later, the contaminated community that prompted creation of Superfund legislation, the Niagara Falls, N.Y. neighborhood known as Love Canal, is finally showing signs of revival. While the PCB pollution in Pittsfield and along the Housatonic River, the legacy of the days when manufacturing reigned supreme, is far less toxic and dangerous to human health, the experience of Niagara Falls is a grim reminder of how frustratingly slow a government sponsored cleanup can be when confronted by a litigious industry.
Friday, August 7, 1998	GE, city planning Sept. ceremony for renovated Dorothy Amos Park	General Electric and the city are planning a September ribbon-cutting ceremony to unveil a \$150,000 renovation of Dorothy Amos Park following completion of PCB remediation work this month. The date has not been set so far. GE contractors removed 7,000 tons of contaminated soil from the little West Street park this summer before installing three basketball courts, according to company spokesman Debra Townsend.
Sunday, August 2, 1998	Rains moved PCBs - Wet June stirred contamination, EPA tests show	Heavy mid-June rains transported more PCB-contaminated mud into low-lying areas along the Housatonic River, according to a sampling done by the Environmental Protection Agency last month. Richard Cavagnero, the EPA's project manager for the General Electric-Housatonic site, said the sampling provided further evidence that the river is continually moving PCBs that originated at the General Electric plant downstream and out onto its banks.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Sunday, July 26, 1998	In Brief. A public input session with no public	For the first time Tuesday, the parties involved in talks aimed at a negotiated cleanup of PCBs on the General Electric Co. Site and in the Housatonic River met at Berkshire Community College to hear concerns of area residents. But the public at large was not invited, and the press, representing the public, was asked to leave. Such a policy is disingenuous. Certainly, residents understand that negotiations at the bargaining table are held in private, but Tuesday's meeting was not a negotiating session. It was a community input forum, and as such no cause for confidentiality concerns. The democratic process relies on public debate and while such dialogue can be messy, there are ways to limit grandstanding and agenda-mongering. Negotiators would have been wise to have kept this principle in mind when organizing an "input" session.
Saturday, July 25, 1998	EPA has 'sincere interest' in settlement, DeVillars says	Exactly what it was that encouraged Mayor Gerald S. Doyle Jr. and Council President Thomas E. Hickey Jr. about the future of negotiations between the city, federal and state agencies and General Electric Co. isn't exactly clear. But John DeVillars, region 1 administrator for the federal Environmental Protection Agency, made a brief but telling comment echoing Doyle and Hickey's enthusiasm yesterday.
Friday, July 24, 1998	Officials involved in PCB talks report 'significant progress'	Details have yet to emerge, but city officials say there is reason to be encouraged by PCB cleanup negotiations held here yesterday. City Council President Thomas E. Hickey Jr. and Mayor Gerald S. Doyle Jr., who are representing the city at the bargaining table with General Electric, the federal Environmental Protection Agency, the state Department of Environmental Protection and other state and federal agencies, could not be specific about what Hickey termed "significant progress."

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Wednesday, July 22, 1998	Doyle tells TV viewers settlement is best bet	On the eve of the resumption of talks among the city, federal and state environmental agencies and General Electric, Mayor Gerald S. Doyle Jr. took his case for a negotiated settlement to the people. Doyle told viewers watching public access cable that a negotiated settlement would provide a faster cleanup, and more economic benefits, than a government-funded Superfund cleanup.
Sunday, July 19, 1998	Friends of the river gaze at the future	Environmentalists, state and town officials, and other friends of the Housatonic River gathered yesterday to help navigate the best course for its future. The discussion was based on the presumptions that there will be money for natural resource damages forthcoming from General Electric, and that PCB contamination eventually will be cleaned from the river.
Friday, July 17, 1998	Pittsfield opposes permit expansion on cleanup plan	Even though Pittsfield is actively campaigning for a negotiated settlement with General Electric Co. instead of a Superfund designation for the mothballed transformer plant and the Housatonic River, the city does not support GE's proposal to expand the existing cleanup permit under the Resource Conservation and Recovery Act. And in comments submitted to the Environmental Protection Agency on July 6, the city's attorney said that if all sides fail to reach a comprehensive settlement, then a "Superfund designation must play a role in the cleanup and reuse of those properties."

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Thursday, July 16, 1998	Environmental meeting set for Barrington	Town officials and environmentalists here will be hosting the first of several "environmental special town meetings" this Saturday at 1 p.m. at Town Hall to discuss ways to reclaim the portion of the Housatonic River that flows through Berkshire County. The meeting will be hosted by the Selectmen, Conservation Commission and the Great Barrington Land Conservancy. It is the first in a series that the Housatonic River Initiative has been scheduling to gather input from residents and concerned organizations, according to organizer Rachel Fletcher. Future meetings are also being planned with towns up and down the river, as well as other groups such as students and sportsmen.
Wednesday, July 15, 1998	Colonial strategy applies to PCB cleanup (Letter to the Editor)	Tuesday, Hillary Rodham Clinton, in her capacity as the honorary chairwoman of the Millennium Committee to Save America's Treasures, visited the Colonial Theater in Pittsfield. The theater has been abandoned for 50 years and has fallen into disrepair, and Mrs. Clinton's presence drew attention to the plight of our nation's neglected architectural landmarks that are deserving and in need of restoration. The plight of the theater mirrors that of Pittsfield itself and of the Housatonic River that runs through it. Birthplace and home to General Electric, Pittsfield currently is a city burdened by a 60-year history of PCB contamination and neglect.
Thursday, July 9, 1998	GE files appeal on river cleanup	GE has appealed a PCB removal order issued last month by the Environmental Protection Agency's New England regional office, claiming the order amounts to an illegal modification of the company's existing cleanup permit.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Wednesday, July 8, 1998	Government is asking GE to obey law (Letter to the Editor)	I have friends whose underground oil tank broke. They were inconvenienced for many months while the problem was being fixed. They didn't hire a lawyer; they didn't demand years of study; they cooperated with the Massachusetts Department of Environmental Protection (DEP); and they did the right thing for their property and the property of others. Home owners and small business people have been dealing responsibly with contamination for years.
Friday, July 3, 1998	Judge is asked to rule on PCB cleanup standard	An Amherst attorney who filed a class-action suit against GE on behalf of Pittsfield residents whose properties are contaminated with PCB fill placed there decades ago has asked a judge to rule that the state's cleanup standard is not clean enough.
Wednesday, July 1, 1998	GE still on schedule for residential cleanups	Despite some recent delays in the progress of GE's \$20 million residential cleanup program, the company is still on schedule to complete its ambitious agenda of 62 cleanups this season, a Department of Environmental Protection Official said.
Tuesday, June 30, 1998	Profiles in shamelessness (Letter to the Editor)	I recently discovered in the video collection of the Stockbridge Library a video collection of speeches by President Kennedy. The public has finally become aroused over the PCB issue (after years of being lied to by the politicians and the state and federal environmental bureaucrats) and it should maintain that new awakening and extend it to the other important issues we now face as a nation; while the politicians lag behind. The follow up of JFK's book should be called "Profiles in Cowardice and Shamelessness."

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Sunday, June 28, 1998	In Brief. Middle ground on river cleanup	In negotiations that resumed Thursday in Boston, the Environmental Protection Agency and the General Electric Company have seven weeks to work out the terms of a settlement for the reclamation of the company's former transformer site in Pittsfield and the cleanup of the Housatonic River. Previous talks have run aground on the appropriate response to PCB-contaminated sediments in one-and-a-half miles of the river but there is room for compromise in removing the worst of the pollution.
Thursday, June 28, 1998	GE kept wary eye on public, plan shows	A 1991 GE public affairs plan encouraged its community relations staff to focus on neutralizing critics of GE's efforts to investigate and clean up the PCB wastes at its plant and the Housatonic River and to convince elected officials of the negative aspects of "unwanted remedies."
Tuesday, June 26, 1998	PCB talks start again in Boston	Mediated negotiations between GE, the city, environmental regulators and other state and federal agencies over how GE should clean up its widespread PCB contamination in Berkshire County resumed yesterday in Boston.
Friday, June 26, 1998	River cleanup key to settlement	This week — at the EPA's urging — negotiations on the cleanup of the GE plant site and the Housatonic River resume. The U.S. Environmental Protection Agency strongly desires a negotiated settlement with General Electric. We fully recognized that cooperation and collaboration are far better ingredients for this complex undertaking than confrontation.
Sunday, June 21, 1998	DeVillars chides GE, city over PCB delay	Even as GE and the Environmental Protection Agency prepare to resume the PCB talks, the agency's top New England official chided the city and rebuked the company for continuing to support a delay in the cleanup of the Housatonic River.
Sunday, June 21, 1998	GE loses suit on records release	A state Superior Court judge had handed the Department of Environmental Protection a significant victory in a public record lawsuit filed against it by GE.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Saturday, June 20, 1998	Mutual funds like GE stock	General Electric, the biggest company in the world in terms of stock market value, is owned by more U.S. mutual funds than any other stock, according to a survey by Morningstar Inc.
Monday, June 22, 1998	In Brief. EPA acts with arrogant intransigence	If the Environmental Protection Agency's real agenda were an effective, prompt removal of PCBs from contaminated industrial property and the Housatonic River, the agency's New England administrator John DeVillars would not have publicly rebuked Pittsfield Mayor Gerald S. Doyle Jr. on the eve of the resumption of negotiations between General Electric and the EPA. The EPA's stance toward the negotiated settlement the mayor has endorsed suggests an intransigence whose only purpose is to satisfy a narrow constituency of environmentalists and curry favor with the regulatory bureaucracy and whose result will betray a city hoping against hope for release from the double whammy of industrial pollution and economic dormancy.
Saturday, June 20, 1998	Lakewood neighborhood makes its point about PCBs during visit by city panel	Lakewood residents greeted a site visit by the Conservation Commission with speeches, signs and children in white Tyvek suits yesterday afternoon. Their protest was intended to demonstrate their desire to have badly contaminated property at 47-49 Lakewood Terrace cleaned to a depth of 12 feet. The Department of Environmental Protection has approved a plan submitted by General Electric, which purchased the property last year, to remove contaminated soil from portions of the property to depths of 8 feet.
Thursday, June 18, 1998	GE presents plan for amending state permit for cleanup	In the face of sharp questioning from residents and their attorneys, General Electric Co. presented its plan to voluntarily include several off-site properties, including Newell Street and Allendale School, under its existing Resource Conservation and Recovery Act (RCRA) cleanup permit.



## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Tuesday, June 16, 1998	GE agrees to resume PCB talks	GE has accepted the Environmental Protection Agency's invitation to resume the PCB talks that failed two months ago in order to search for a complete resolution of the wide-ranging contamination issues facing the county.
Tuesday, June 16, 1998	Notes, Footnotes & Queries Eagle Editor (a column of commentary on Berkshire County life)	Better late than never. During his press conference Friday afternoon, Mayor Gerald S. Doyle Jr. complained about how important initiatives for his city had taken a temporary back seat to his time-consuming campaign to get the EPA to negotiate a settlement with General Electric. He might have said that the battle to clean up the former transformer site and the Housatonic River has been largely won for Pittsfield but that some blinkered ideologues won't sign the peace treaty. Among those stalled initiatives, we remind the mayor, was a revision of the policy for issuing liquor licenses. "It's been in my drawer for weeks, all signed," he said. Then why hasn't he submitted it to the council for consideration? "Do you think I'd want to submit such a controversial item during the budget process?" he asked.
Sunday, June 7, 1998	Make GE behave responsibly (Letter to the Editor)	I read with dismay Philip R. Coleman's letter to The Eagle June 2 claiming to have some personal insight into a possible Superfund designation for Pittsfield and the Housatonic River. Though he describes a scenario of a failed Superfund project, Mr. Coleman fails to give any specific detail which might allow the public to reference his story.
Sunday, June 7, 1998	No concessions to GE (Letter to the Editor)	The word negotiate is defined by Webster's New World Dictionary as "to confer, bargain or discuss with a view to reaching agreement. In the context of that definition, the Environmental Protection Agency and its regional director, John DeVillars, approach any negotiations with General Electric about PCB contamination as discussion of what needs to be cleaned and when will GE complete the tasks at hand.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Sunday, June 7, 1998	Gauging PCBs' risk: Where science, rhetoric meet	GE officials have lashed out at the Environmental Protection Agency for this week's announcement that new studies of PCB contamination levels compelled the EPA to order GE to clean up two miles of the Housatonic River.
Friday, June 5, 1998	EPA disseminating data on PCBs	Environmental Protection Agency staff canvassed neighborhoods close to the Housatonic River yesterday to speak with residents about the agency's announcement that it would order GE to clean up two miles of the contaminated river that runs through their back yards.
Thursday, June 4, 1998	Reactions to EPA order vary widely	Environmental Protection Agency Regional Administrator John DeVillars' announcements drew divergent reactions from elected officials and county residents during a series of informational meetings throughout the city yesterday.
Thursday, June 4, 1998	EPA orders GE to dredge	Environmental Protection Agency regional administrator John DeVillars yesterday ordered GE to clean up two contaminated miles of the Housatonic River and pledged that the agency would complete the \$40 million project itself if the company refused.
Wednesday, June 3, 1998	GE tackling most-polluted residential lots	General Electric Co. contractors began work on the most heavily contaminated residential fill property this week, while workers continued excavating tainted soil from a West Street park. The projects will clean up two of the more high-profile sites in the list of 60 residential fill properties that GE contractors intend to tackle this year. But the cleanup of 47-49 Longview Terrace is a sore spot among local residents, who are upset that the Department of Environmental Protection is not forcing GE to remove deeper soils so that a deed restriction would not be required on half the lot to limit how the property could be used in the future.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Tuesday, June 2, 1998	Force GE to act responsibly (Letter to the Editor)	Some of The Eagle's editorials are sounding as if they were written by the same talent that pens General Electric's press releases. But the level of innuendo, ignorance and shamelessness is expected from one camp and comes as a sad surprise from the other.
Saturday, May 27, 1998	EPA makes offer to GE on reopening PCB talks	At a meeting in Boston yesterday, officials of the Environmental Protection Agency offered to reopen formal negotiations on a PCB cleanup while going ahead with plans to order the immediate dredging of a heavily contaminated stretch of the Housatonic River and continue the process of seeking a Superfund listing.
Saturday, May 27, 1998	Politics 'getting out of hand,' EPA official says	The nation's top environmental official waited less than 24 hours before giving GE's latest PCB settlement proposal an unambiguous thumbs down.
Saturday, May 27, 1998	GE ups offer; EPA head says it's not enough	GE has added \$10 million in cash to its offer of compensation for long-term natural resource damages to the Housatonic River and reiterated its proposal to dredge the first half mile of river in an attempt to get the Environmental Protection Agency to reopen the failed PCB talks.
Wednesday, May 24, 1998	Pressure GE to cleanup Housatonic	GE's campaign has shown clearly that the company and its chairman, John Welch, care only about money and power. Big corporations have no right to deny citizens clean water, fresh air, beautiful scenery, quiet green places to walk. It is inconceivable that we should have to fight for any of these things which are basic rights.
Tuesday, May 23, 1998	EPA, GE to revisit prospects for a deal	In response to the persistent entreaties of state and local politicians, the Environmental Protection Agency has agreed to meet with GE Tuesday to revisit the issue of a negotiated PCB settlement.
Tuesday, May 23, 1998	EPA to hear GE PCB plea	Confronted by mounting pressure and rancor, federal regulators said yesterday they are giving General Electric Co. another chance to pitch its ideas for a PCB cleanup around this city.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Saturday, May 23, 1998	In Brief. GE apologist Solomon should butt out	While the Environmental Protection Agency should give ground on its demand that two miles of the Housatonic River be dredged, the efforts of Representative Gerald Solomon, a New York Republican, to introduce legislation stopping dredging of the Housatonic for at least 18 months were deplorable, and Rhode Island Senator John Shafee, chairman of the Senate Environment and Public Works Committee, merits praise for blunting his attempt.
Friday, May 22, 1998	Political foes, environmentalists blast Cellucci over letter to EPA	Acting Gov. Paul Cellucci is taking fire from his political rivals and environmentalists for asking Environmental Protection Agency administrator Carol Browner to delay announcing any enforcement actions on the GE/Housatonic River PCB site. Attorney General Scott Harshbarger's office said it is "baffled" by the governor's request, which also came as a surprise to the Department of Environmental Protection, the Department of Public Health and the EPA. The three state agencies have worked in conjunction with the EPA on the Pittsfield cleanup.
Thursday, May 21, 1998	Politics 'getting out of hand,' EPA official says	The nation's top environmental official waited less than 24 hours before giving GE's latest PCB settlement proposal an unambiguous thumbs down. EPA administrator Carol M. Browner's swift response to the latest GE offer demonstrates the intense scrutiny that the company's Housatonic River site is receiving across the country. An EPA official said that Browner opted to weigh in on the Housatonic cleanup because the politics of the situation "were getting out of hand."

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Thursday, May 21, 1998	No collaboration on part of EPA (Letter to the Editor)	In the May 19 "In Brief" entitled "Radicals Polarize Environmental Issue," the Eagle castigates the critics of EPA regional boss John DeVillars because they "charged Mr. DeVillars with collaborating with the enemy, namely industrial polluters, in particular, the General Electric Company." The American Heritage Dictionary has two definitions for the word "collaborate." The first is "to work together, especially in a joint intellectual effort," Since when is the enforcement of pollution laws classified as a "joint intellectual effort"?
Monday, May 18, 1998	Dredging is necessary (Letter to the Editor)	General Electric is the only one who can put the PCBs in the past, and until it does this the PCB issue will continue not only into the 20th century but beyond. The PCBs are not in the water but in the soil and until the river is dredged (which is the only way to get rid of PCBs) the PCBs will remain.
Saturday, May 16, 1998	In Brief. EPA: Meet with GE and get it done	With General Electric offering to clean one-half mile of the Housatonic River and provide a solid financial package for environmental damages and economic projects in Pittsfield, it is time for the Environmental Protection Agency to go back to the bargaining table and reach an agreement. The EPA should abandon its insistence that PCB-laden sediment be dredged from a two-mile stretch of the river, as too little has been established with certainty of the health risks of PCBs to justify such a disruptive project.
Saturday, May 9, 1998	In Brief. Moving beyond the PCB-past	The revelation that General Electric has had a report on PCB-tainted-sewage sludge in its possession for 18 years after sanctimoniously chastising the federal Environmental Protection Agency for allegedly hiding the same report for 22 years escalates the mudslinging between GE and EPA to new levels of farce. The issue of who knew what, and when they knew it, is far less important to the region than how PCB-contamination will be addressed today.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Friday, May 8, 1998	GE has had tainted-sludge report since 1980	A week after GE accused the Environmental Protection Agency of misleading Pittsfield residents by hiding a 1976 report that showed some PCB-tainted sewage sludge had been used as garden fertilizer, The Eagle has learned that GE had a copy of it as early as 1980.
Tuesday, May 5, 1998	In Brief. No winners in battle of gladiators	Like Roman gladiators wielding pikes, nets and swords before a bloodthirsty crowd, warriors for the Environmental Protection Agency and General Electric are about to engage in high stakes combat over the cleanup of PCB contamination in Pittsfield and the Housatonic River. The arenas, in this case, are regulatory hearing rooms and judicial chambers and while the business and environmental elite are invited, the city of Pittsfield and ordinary Berkshire citizens get to stand outside, without the right to a thumbs up or thumbs down.
Friday, May 1, 1998	GE's removal of PCB testing equipment in Woods Pond delayed until November	The town received word this week from General Electric Co. that contrary to the company's earlier understanding, experimental equipment will not have to be removed from Woods Pond until November. This latest development pleases town officials, who were concerned that the new footbridge spanning the pond would have to be closed for part of the spring or summer to accommodate the removal.
Saturday, April 25, 1998	In Brief. Another reason to separate GE plant	The Environmental Protection Agency's optimistic timetable notwithstanding, it is apparent General Electric is going to aggressively fight Superfund cleanup of the Housatonic River, and GE may have more of a stomach for this fight than the government. GE has hired a battery of legal heavyweights to argue its case, while the Justice Department, significantly, has freed up only two of its regional attorneys to argue for the EPA.
Thursday, April 23, 1998	GE to remove PCB testing gear beneath surface of Woods Pond	The Selectmen met with representatives of General Electric Co. last night to discuss plans for removing experimental equipment submerged in Woods Pond, a project that is likely to temporarily restrict access to the footbridge.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Thursday, April 23, 1998	Notes, Footnotes & Queries (a column of commentary on Berkshire County life)	We're thinking of breaking the law to prove a point. Since General Electric CEO Jack Welch has all but declared to his stockholders that PCBs are as harmless as cold cream, we'd like to take him up on his expertise. We are contemplating gathering up riverbed sediment from Woods Pond, and sending it to Mr. Welch for use as a mudpack. We dare him to use a daily treatment of our concoction – no.
Wednesday, April 22, 1998	Local outfit wins award from EPA	The Housatonic River Initiative will be presented with an Environmental Merit Award from the Environmental Protection Agency today in Boston. EPA public affairs spokesman Leo Kay said a total of 37 groups and individuals will be recognized at Faneuil Hall for their outstanding contributions toward preserving and protecting natural resources in New England. Founded in 1992, HRI has spent six years educating Berkshire County residents about the extent and hazards of the PCB contamination in the mothballed General Electric Co. Plant, related off-site landfill areas, and the entire stretch of the Housatonic River below the GE plant.
Sunday, April 19, 1998	Critics of PCBs sum up research	Last September, General Electric embarked on a public relations campaign, with full-page newspaper ads, to combat negative publicity surrounding PCB contamination in Pittsfield and the Housatonic River. Some of the ads quoted scientists who downplayed the health risks of PCB exposure. Yesterday, the Housatonic River Initiative, an activist group pushing for a cleanup, presented four experts they recruited to counteract those messages in talks at the Berkshire Athenaeum. Members of the Initiative and residents with properties containing contaminated fill have joined in an alliance called Citizens for PCB Removal, and many of the 60 or so people attending the five-hour meeting at the Athenaeum wore green ribbons bearing the group's name.

## LIST OF SELECTED NEWSPAPER ARTICLES

BERKSHIRE EAGLE		
Date	Headline	Lead Paragraph
Thursday, April 16, 1998	Pols, corporations in unholy alliance (Letter to the Editor)	In the ongoing debate on the PCB problem, it seems to me that the problem needs to be put into the larger context of the real changes in political power going on in the world and more care needs to be used in the use or non-use of some key words. One word I'm thinking of is "responsibility," a word I seldom see in this discussion.
Tuesday, April 14, 1998	Our duty is to the land (Letter to the Editor)	It is unfortunate that in a world full of dichotomies and mixed messages, that a clear example of mishandling of nature and rivers can't be easily repaired, can't be physically healed. There is a link between what we do to our natural environments, our microcosms, and our inner and outer realms.
Tuesday, April 14, 1998	GE Shareholder coalition to press for cleanup Section: B Page: BI	Emboldened by the Environmental Protection Agency's hard line against GE on the Housatonic River, Hudson River advocacy groups are redoubling their efforts to get the corporate giant to clean up the PCB contamination in the Northeast's most important river.
Friday, April 10, 1998	PCBs safe, GE will insist Section: A Page: A1	General Electric's reluctance to clean up PCBs in Pittsfield and elsewhere can be reduced to one simple concept: PCBs are no risk to human health, company scientists and lawyers say.
Thursday, April 9, 1998	EPA plan to force cleanup greeted with strong support	More than 200 residents turned out to Pittsfield High School last night to hear how the Environmental protection Agency's regional administrator was turning up the heat on GE.
Thursday, April 9, 1998	Lawsuits begin flying	In lawsuits filed Tuesday in Boston, GE has accused the federal Environmental Protection Agency and the state Department of Environmental Protection of withholding documents related to the investigation and cleanup of GE's PCB wastes in Berkshire County.



## LIST OF SELECTED NEWSPAPER ARTICLES

BERKSHIRE EAGLE		
Date	Headline	Lead Paragraph
Thursday, April 9, 1998	Notes, Footnotes & Queries (a column of commentary on Berkshire County life)	Let the legal wars begin. With the demise of a negotiated settlement between General Electric and the Environmental Protection Agency, lawsuits soar like rockets over Baghdad - which is why the EPA spends 70 percent of its budget on legal fees when dealing with an abandoned Superfund site. No doubt about it, Pittsfield - and the county - have been sold down the river by these titanic antagonists. In the end, it could cost the city 2,000 jobs and remove \$500 million from the local economy, by some estimates, with no guarantee that, beyond engineering studies, a cleanup of the Housatonic will occur anytime soon, in spite of the EPA's rosy timetable.
Wednesday, April 8, 1998	The case for a cleanup	The Environmental Protection Agency, having decided it will clean up the General Electric site and the Housatonic River itself if the company won't, is taking its case to the people.
Wednesday, April 8, 1998	Residents support cleanup, say GE should pay upfront	Residents questioned yesterday support a cleanup of the General Electric transformer site and the Housatonic River. But they would prefer that GE pick up the PCBs instead of the government stepping in and paying the tab with federal tax dollars.
Wednesday, April 8, 1998	Critics of GE laud action to hasten cleanup of river	GE critics said the Environmental Protection Agency's decision to push an expedited cleanup through the Superfund program after the collapse of the PCB talks last week is the right course of action. While everyone involved wanted a negotiated settlement so long as it didn't sacrifice the river cleanup and natural resource damages on the altar of economic revitalization, GE's unwillingness to come anywhere near the EPA's bottom line on the river and damages surprised few.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Saturday, April 4, 1998	I, Publius. Bring a cleanup to life (Special to The Eagle)	Jack Welch, the CEO of General Electric, is one of the richest men in America. He is also to be congratulated for his bottom-line business acumen. He is one successful capitalist. There are many people who believe that he is more powerful than the President of the United States. We have been witnessing a huge fight between General Electric and the Environmental Protection Agency over Superfund, the governmental program through which the EPA would come into Pittsfield and clean up the mess left by GE. This is the same GE which boasts a hair-raisingly ironic official slogan, "We Bring Good Things To Life."
Friday, February 13, 1998	GE, landowners near deal on cleanup	After almost six months of haggling, GE and an Amherst attorney representing several homeowners with PCBs in the soil of their yards have agreed in principle to let GE go forward with the cleanup.
Sunday, February 1, 1998	EPA weighs Superfund decision	It's decision time for John DeVillars, the Environmental Protection Agency's New England regional director.
Friday, September 12, 1997	GE aggressively dispensing its own PCB information	Awash in waves of negative publicity, GE is mounting a public relations campaign to correct what it believes is misinformation about the health effects of exposure to PCBs.
Friday, September 12, 1997	After the job cuts (Letter to the Editor)  Section: Editorial Page  Page A8	The loss of 650 jobs at General Dynamics is certainly disheartening, especially coming as it does on the heels of the revelation of PCB contamination throughout the city that is worse than was imagined. However, the job cuts shouldn't surprise anyone who has watched the post-Cold War shrinking of the defense industry and only re-emphasizes the need for Pittsfield to get out from under its traditional dependence upon big business.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Friday, September 12, 1997	Perils of PCBs are well-documented (Letter to the Editor)	I am very pleased that John Church of Lenox (letters, Sept.8), despite his two-year exposure to PCBs, is able to enjoy his retirement. But like the happy smoker who fondly puffs his way into his 90s, his good fortune has little to do with the facts of the matter.
Friday, August 15, 1997	Outraged, Larkin sees 'PCB-gate'	In an abrupt turnaround, state Rep. Peter J. Larkin is supporting state Rep. Christopher J. Hodgkins' call for a criminal investigation of possible environmental crimes by General Electric Co.
Friday, August 15, 1997	Engineer's '81 Warning went to top	Newly released documents cast doubt on GE's assertions – repeated over 20 years – that PCB contamination was largely confined to the 250-acre plant and the Housatonic River.
Friday, August 8, 1997	Property owners dismayed to learn their yards are contaminated, too	Resentment against General Electric Co boiled over last night at a packed informational meeting in the City Council chambers about the growing number of residential properties found to be contaminated with PCB fill.
Sunday, August 3, 1997	Regulators, GE weigh Superfund	GE has said it is willing to continue negotiations with environmental regulators, even if its 250-acre facility and 55 miles of the Housatonic River are nominated as a Superfund site – a signal that such an announcement may be only days away.
Sunday, March 9, 1997	Brownfields	Nearly 250 acres of prime industrial land sits empty in the center of the city.
Sunday, March 9, 1997	Patterns of Pollution	From the vantage point of a tiny Cessna tossed by wind currents high above Pittsfield, the sprawling GE plant looks like a piece of a greater puzzle, carved out of a dense city. It seems an unreal, toy landscape full of unused paring lots and buildings bisected by railroad tracks, roads, steam pipes. In the distance, through the gaze of winter and of smog, the brownfields nudge neighborhoods that fade into the Berkshire countryside. From a bird's-eye view, there is no hint of pollutants. No awareness of hidden dangers.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Sunday, March 9, 1997	Coming to terms with the brownfields issue	The brownfields issue can be confusing, even for those familiar with the law and the initiatives to amend it now under way.
Monday March 10, 1997	Brownfields: The legislation	Restoring contaminated and abandoned industrial sites like the General Electric transformer complex is one of Speaker of the House Thomas Finneran's 12 priorities for the 1887-98 session.
Thursday, September 12, 1996	Study: PCBs impair kids' IQs, Section: Front Page	Exposure before birth to relatively small amounts of PCBs, a kind of industrial pollutant, can result in long-lasting deficits in a child's intellectual development, a new study has shown.
Thursday, May 16, 1985	Less PCB found in Housatonic fish	Levels of cancer-causing PCBs in several sample groups of fish from the Housatonic River declined by 47 percent to 84 percent during a five-year period ending in 1984, according to a study performed by the Connecticut Department of Environmental Protection and the General Electric Co.
Friday, October 26, 1984	Four area sites proposed for placing PCB sediments	Four sites—two in Lenox, one on the Lee-Lenox line and one in Pittsfield—were proposed for disposing of PCB-contaminated Housatonic River sediments at a briefing for area legislators yesterday at the Statehouse in Boston.
Wednesday, October 5, 1983	Officials say PCB cleanup is succeeding in Lakewood	General Electric Co.'s underground oil collectors are working and eventually will suck the ground in the Lakewood area dry of PCB-contaminated oil, top state environmental officials said last night.
Monday, March 21, 1983	BCRPC director calls for hearing on PCB studies	A public hearing is needed in Pittsfield on studies of PCB polychlorinated biphenyl pollution here, according to the Berkshire County Regional Planning Commission (BCRPC).

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Monday, February 15, 1982	GE ends offer to buy houses in area of PCB contamination	General Electric Co., which purchased five Lakewood area houses found to have basements contaminated by toxic polychlorinated biphenyls (PCBs) in 1980 and 1981, is not willing to buy more.
Monday, July 13, 1981	State study of PCBs assailed: Pittsfield leaders, Lakewood residents level attack	The state's report that PCB contamination is not a significant health or environmental threat in the Lakewood area came under sharp attack last night from elected officials and Lakewood residents who called it "unscientific," "disappointing," or simply said they found it hard to believe.
Tuesday, November 4, 1980	GE offers to buy two houses with 'minor levels' of PCBs	General Electric Co. has offered to buy two more houses in the East Street area near its plant. It said both had minor levels of PCBs.
Thursday, October 16, 1980	New hazardous waste rules criticized	A General Electric Co. executive warned yesterday against the possible imposition of hazardous waste standards for Massachusetts that are more stringent than federal standards.
Thursday, October 16, 1980	Council wants proof on PCBs from DEQE	The City Council voted Tuesday night to ask the state Department of Environmental Quality Engineering to document its controversial suggestion the PCB (polychlorinated biphenyl) contamination in Lakewood might have been caused by oiling unpaved roads and driveways there with contaminated oil.
Monday, October 13, 1980	Arlos seeking state revision of PCB study	A petition requesting the City Council to ask the state Department of Environmental Quality Engineering to revise a preliminary report on PCBs contamination in the Lakewood area has been filed by At-large Councilor Peter G. Arlos.
Wednesday, October 1, 1980	State report discounts PCB threat	PCB contamination of ground water in the Lakewood area "does not present a significant threat to the environment or the public health," a state Department of Environmental Quality Engineering investigation concluded.
September 29, 1980	Blood samples taken from 80 in checks of accumulated PCBs	Blood samples were taken from about 80 persons Saturday to check for possible accumulations of toxic PCBs (polychlorinated biphenyls) as part of a study being conducted by the Massachusetts Coalition for Safety and Health (MassCosh).

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BERKSHIRE EAGLE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Friday, August 15, 1980	State will require GE to list where discarded PCBs went	The state is drafting an order requiring General Electric Co. to pinpoint, as completely as possible, the final resting place of all waste PCBs (polychlorinated biphenyls) that the company disposed of over the 40-year period it used the toxic chemical.
Friday, June 27, 1980	GE reports PCBs found in Lakewood gardens	General Electric has found "fractional levels" of the toxic chemical PCB in soil from 13 gardens in Lakewood but says the amounts are so small the residents should not be afraid to grow vegetables.
Saturday, April 12, 1980	GE offers to buy PCB-tainted houses	General Electric Co. has offered to clean or purchase two houses in the Lakewood section of Pittsfield that GE tests show have cellars contaminated by PCBs (polychlorinated biphenyls), a company official disclosed yesterday.
Monday, February 25, 1980	Lakewood residents remain skeptical	After a Saturday briefing by General Electric Co., many Lakewood residents remain concerned that PCBs (polychlorinated biphenyls) may be hazardous to their property values and their health. And they are skeptical of GE's assurances that the toxic chemical has not penetrated their neighborhood.
Saturday, February 23, 1980	GE to expand drilling eastward in search for toxic chemicals	General Electric Co. will drill test holes along the entire Plastics Avenue-Coltsville perimeter of its plant in a search for chemicals that may have escaped into soil and groundwater during 80 years of manufacturing.
Friday, February 15, 1980	GE drilling new wells in PCB search	General Electric Co. said yesterday that it has begun drilling new monitoring wells near the intersection of East and Newell streets in a continuing search for toxic polychlorinated biphenyls (PCBs).

## LIST OF NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Sunday, August 12, 2001	CLEANUP TIME	Until the 1970s, General Electric manufacturing plants in Pittsfield and upstate New York discharged an insulating oil containing polychlorinated biphenyls, better known as PCBs, into two of the Northeast's great rivers, the Housatonic in this state and the Hudson in New York.
Saturday, October 28, 2000	JUDGE OKS GE DEAL FOR CLEANUP OF PCBS	A federal judge approved an agreement yesterday between the General Electric Co. and government regulators that calls for the cleanup of PCBs the company discharged along the Housatonic River and at dozens of other locations in Western Massachusetts.  GE operated a 250-acre transformer manufacturing plant in Pittsfield on the banks of the river for several decades through the 1970s.
Sunday, July 23, 2000	FAIR SETTLEMENT IN PITTSFIELD	Approval of a consent decree filed yesterday for final cleanup of Pittsfield's troubled General Electric plant site should lock in an important step forward in one of the state's most difficult environmental problems. Its significance lies in opening the way to restoration of economic vitality to Pittsfield - and also in the model it provides of a successful negotiation among widely conflicting interests.
Monday, December 27, 1999	A STEWARD FOR THE ENVIRONMENT	In six years as regional administrator of the Environmental Protection Agency, John DeVillars has presided over important regulatory innovations, combining the force of law with the power of negotiation. They deserve to be pursued after his departure and emulated elsewhere.
Friday, November 19, 1999	DEVILLARS: EFFECTIVE ENVIRONMENTAL LEADER	David Armstrong's Nov. 16 assessment of John DeVillars and his enforcement program at EPA-New England was off the mark ("US lagging on prosecutions," Page A1).  During his six years at the Environmental Protection Agency, DeVillars has been a highly effective leader in protecting New England's environment. His enforcement program - combining aggressive, tough actions against violators with effective compliance assistance - is nothing short of outstanding.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Wednesday, November 10, 1999	DEVILLARS, HAILED FOR EFFORTS, TO LEAVE REGIONAL EPA	He came into office with a tough guy reputation and a picture of Bobby Kennedy under his arm, and for nearly six tumultuous years, John DeVillars stood center stage in most of the major environmental debates in New England, from protecting Maine's coast to forcing the National Guard to clean up its act.
Sunday, October 31, 1999	PROGRESS IN PITTSFIELD	The final agreement announced earlier this month for cleaning up the contaminated General Electric complex in Pittsfield and the nearby Housatonic River is a major accomplishment for the environment. But the manner in which the agreement was reached also has important implications, not just for this effort but as a model for the resolution of other difficult controversies.
Tuesday, October 26, 1999	BUS MAKER TO OPEN PLANT AT GE	Backed by a \$1.35 million federal grant, a company that makes battery-powered buses plans to become the first tenant at the former General Electric Co. plant in Pittsfield, providing up to 1,000 jobs within six years, federal and city officials announced yesterday.
Saturday, October 9, 1999	GE-EPA ACCORD SETS STAGE FOR REMOVAL OF PCBs FROM HOUSATONIC	The long-awaited cleanup of the Housatonic River in Western Massachusetts is expected to begin next week after government officials and General Electric signed a formal agreement Thursday committing the company to spend \$250 million to \$750 million to clean up toxic PCBs from an old transformer plant in Pittsfield.
Friday, October 8, 1999	GE CLEANUP SET FOR UP TO \$750M	General Electric Co. will invest up to \$750 million to clean up PCB contamination caused by its old transformer plant in Pittsfield under a consent decree filed yesterday in US District Court that ends years of wrangling over the company's duty to restore the Housatonic River and other polluted areas.



## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Saturday, August 28, 1999	PCBS IN HOUSATONIC DUCKS PROMPT STATE FOOD WARNING	Ducks on the Housatonic River in Western Massachusetts have been found to contain potentially cancer-causing PCBs at more than 200 times the allowable level, the EPA reported yesterday, making them among the most contaminated ever found in the nation.
Friday, July 30, 1999	GE ORDERED TO TEST NEW SITE FOR PCBS	State environmental regulators are ordering General Electric Co. to test for PCBs at yet another site in Pittsfield, where a huge cleanup of the chemicals is already underway. The latest site is the King Street dump, along the Housatonic River. The dump has been closed since the early 1970s. J. Lyn Cutler, who supervises PCB work in Pittsfield for the state Department of Environmental Protection, said GE was given six weeks to offer a plan for PCB sampling there.
Thursday, July 8, 1999	GE PAYS \$1M TO HELP RID PITTSFIELD DUMP OF BARRELS	General Electric Co. has given \$1 million to help pay for cleanup of the city's latest environmental hazard blamed on GE: more than 840 barrels of chemical waste at a city landfill.  "It's our understanding that the drums came from GE. Many had GE markings, and they were put there in an organized fashion," said Alan Weinberg, deputy regional director of the state Department of Environmental Protection.
Wednesday, May 5, 1999	WORKERS RESUME CLEANUP OF LANDFILL	Workers have begun digging into a city landfill, expecting to uncover at least another 250 barrels of chemical wastes. Workers pulled 668 drums from the landfill along the Housatonic River before winter weather forced them to stop digging. More than a third of the barrels contained hazardous waste. The barrels were discovered last October by a bulldozer operator who was sealing the closed landfill.
Thursday, March 11, 1999	GE-FUNDED STUDY FINDS A LESSER RISK IN PCBS	The largest study on human exposure to toxic PCB chemicals has found no link between PCBs and deaths from cancer.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Saturday, February 27, 1999	MANY DRUMS IN LANDFILL HELD HAZARDOUS WASTE, TESTS SHOW	At least a third of the 660 chemical drums found buried in a city landfill contain hazardous wastes, including high levels of PCBs, state environmental officials say.
Wednesday, October 28, 1998	Reilly for attorney general Edition: Third Section: Editorial Page Page: A22	Middlesex County District Attorney Thomas F. Reilly, the Democratic nominee for attorney general, is an innovative prosecutor with wide knowledge of criminal justice issues. – Since his primary victory last month, Reilly has broadened his view of the job. For instance, he analyzed issues regarding the contaminated General Electric land in Pittsfield, where the company is working with federal officials to restore environmental safety and economic well-being. The next attorney general will play a key role in this and other attempts to clean and reuse hazardous sites across the state.
Thursday, October 15, 1998	Pittsfield officials, GE tout cleanup plan seen as a key to revitalizing city Edition: Third Section: Metro Page: B2	Waving off months of bickering over this city's PCB cleanup, government and General Electric Co. officials yesterday touted plans to mount what was described as the most ambitious project of industrial reclamation in New England. Government leaders hope to reclaim much of the 250-acre, partly abandoned site where GE used chemical PCBs to make electrical transformers for decades.
Sunday, October 11, 1998	GE expects to spend \$150M on Pittsfield cleanup Edition: Third Section: Letters Page: D6	Your editorial "Win-win in Pittsfield" (Oct. 4) accurately describes the agreement General Electric Co. and government agencies reached to address PCB issues in Pittsfield as "a victory for common sense." For the record, GE's estimate of the cost is about \$150 million. The bulk of the agreement consists of cleanup projects. The final cost to GE will depend on the efficiency and timing with which these projects are carried out.
Sunday, October 4, 1998	Win-win in Pittsfield Edition: Third Section: Editorial Page Page: C6	The agreement hammered out between General Electric Co. and the US Environmental Protection Agency over decontamination of GE's Pittsfield land and the Housatonic River flowing past it is a tribute to the power of compromise and a victory for common sense. The agreement, which calls for the investment of hard work and significant money, is good news for the people of Pittsfield and surrounding communities. It will yield even greater rewards if it serves as a model for resolving other difficult environmental disputes across the country.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
Date	Headline	Lead Paragraph
Friday, September 25, 1998	GE accepts \$150M plan to clean Pittsfield sites  Edition: Third Section: Metro  Page: A1	General Electric yesterday agreed to invest at least \$150 million to clean up widespread industrial contamination from its former electric transformer plant in Pittsfield, ending an often bitter yearlong standoff with the federal government over how much cleanup is needed. Under a broad agreement with the US Environmental Protection Agency and numerous other government agencies, the company will clean up the Housatonic River and other areas, such as a school, that it contaminated with PCBs, or polychlorinated biphenyls. In addition, GE will clean up the 256-acre former plant site and give it to the city for economic development.
Thursday, September 24, 1998	GE and EPA may announce a deal  Edition: Third Section: Metro  Page: B6	General Electric and the US Environmental Protection Agency may be ready to announce – as soon as today – a compromise plan for GE to clean up PCB pollution in Pittsfield that would stave off a potentially years-long, \$500 million Superfund lawsuit. As of late last night, sources said a tentative deal included agreement for the EPA to supervise dredging or capping two miles of contaminated riverbed in the Housatonic River, which GE would pay for; \$60 million in direct and indirect economic development aid from GE to Pittsfield; and a \$15 million cash payment by GE to cover PCB damage to natural resources, as well as commitments to clean up all oxbows of the river and 265 named sites polluted with PCBs.
Tuesday, September 22, 1998	GE, EPA make progress in talks  Edition: Third Section: Metro  Page: B5	Environmental regulators and negotiators for General Electric Co. have made progress toward an agreement on cleaning up PCB pollution around Pittsfield, a government spokeswoman said. Angela Bonnarigo, speaking for the US Environmental Protection Agency, said weekend negotiations were constructive. More talks were set for tomorrow. The negotiations were extended last week beyond a Thursday deadline. The EPA opened the on-and-off talks with GE a year ago. Government and GE officials have been working toward a cleanup of the polluted Housatonic River, and redevelopment of an old GE factory site.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Saturday, August 29, 1998	EPA sets talks on PCB cleanup Edition: First Section: Metro Page: B6	Federal environmental regulators say they have extended talks with General Electric on cleaning up PCB pollution at its Pittsfield plant site and the Housatonic River. John DeVillars, regional head of the US Environmental Protection Agency, said formal negotiations are expected to resume, and conclude, during the week of Sept. 14. In April, the EPA said it was moving forward with a federal cleanup under the Superfund law, which GE opposed. But officials agreed in June to try to reach a negotiated cleanup agreement.
Thursday, June 18, 1998	Pittsfield cleanup talks on again Edition: First Section: Metro Page: B6	The intermittent negotiations over speeding the cleanup of General Electric's PCB contamination in Pittsfield were back on yesterday, after US environmental regulators agreed to meet next week with GE officials and a mediator. The two sides agreed to start formal talks again after GE said that it would do the planning and design necessary to start by next spring dredging and excavating PCB-laden soils from a half-mile stretch of the Housatonic River near its largely abandoned 245-acre transformer plant site.
Thursday, June 4, 1998	US orders GE to dredge river in Pittsfield Edition: Third Section: Metro Page: B2	After months of threats, federal environmental regulators yesterday ordered General Electric to dredge PCB-tainted muck from a half-mile of the Housatonic River in Pittsfield, but left considerable wiggle room for GE to resume negotiating a compromise cleanup plan and avoid a Superfund lawsuit.
Sunday, May 31, 1998	EPA chief prefers talks with GE on PCB cleanup Edition: Third Section: Metro Page: B9	US Environmental Protection Agency administrator Carol Browner has told state officials that she "continues to prefer" a negotiated deal with General Electric to clean up its PCB pollution in Pittsfield and avoid a protracted Superfund litigation battle. But Browner said the EPA and GE disagree over whether the company should dredge an extra 1.5 miles of the PCB-laden Housatonic River beyond the half mile it has suggested it would consider dredging if a deal can be reached.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Saturday, May 23, 1998	Call to delay EPA action on GE criticized Edition: Third Section: Metro Page: B5	Leading Massachusetts environmental groups have criticized Acting Governor Paul Cellucci for asking the federal Environmental Protection Agency to delay plans for designating the General Electric plant site in Pittsfield as a Superfund cleanup site by this fall. In a letter to Cellucci Thursday, 11 environmental groups called the acting governor's decision "a serious mistake" and said any further delay "would be clearly unwise and unsafe for the citizens of Pittsfield."
Thursday, May 21, 1998	Cellucci opposes EPA on Pittsfield Edition: First Section: Metro Page: B5	Acting Governor Paul Cellucci has joined Pittsfield officials in asking the federal Environmental Protection Agency to delay declaring the Housatonic River and a General Electric plant site in Pittsfield a Superfund cleanup site. In a letter to EPA Administrator Carol Browner, Cellucci and the other officials urged Browner to give negotiators one more chance to reach a settlement with General Electric over PCB contamination.
Thursday, May 14, 1998	A personal link in Pittsfield pollution woes face city GE chief once called home Edition: Third Section: Metro Page: B1	While he was increasing General Electric's shareholder value by more than \$265 billion over the last 17 years, chief executive John F. Welch Jr.'s ruthless approach earned him a nickname he hates: "Neutron Jack," after the bomb that kills people but leaves buildings standing. As Welch has moved to dump or overhaul any GE operation that could not be No. 1 or No. 2 in its global market, shedding more than 170,000 jobs on the way, a hallmark of his refuse-to-lose strategy has been the company's consistently aggressive resistance when the government brings Superfund suits at more than 80 US toxic waste sites linked to GE.
Saturday, May 9, 1998	Responding to report, EPA calls GE 'shameful' Edition: Third Section: Metro Page: B2	Still smarting from General Electric charges that they hid a 1976 report possibly absolving the company of some blame for PCB contamination in Pittsfield, Environmental Protection Agency officials yesterday slammed what they called "shameful" news that GE knew of the EPA report years ago. The significance of the report on PCB contamination in city sludge that was given away to residents as lawn and garden fertilizer 30 to 40 years ago remains in dispute.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Tuesday, May 5, 1998	GE accuses EPA of twisting facts on contamination  Edition: Third Section: Metro Page: B2	General Electric, in a formal protest yesterday of Environmental Protection Agency moves to force a potential \$500 million Superfund cleanup of its Pittsfield plant, accused the EPA of breaking the law and twisting scientific data to bolster its Superfund claims. In a swipe at EPA regional administrator John P DeVillars – who as state environmental affairs secretary made headlines nine years ago for a 102-miles-per-hour speeding ticket – GE officials said, “Even a regional administrator in a hurry is obliged to slow down long enough to perform the basics of fact collection and analysis required by law.”
Saturday, May 2, 1998	EPA officials fire back at allegations by GE officials delay document concealed from Pittsfield residents  Edition: Third Section: Metro Page: B5	US Environmental Protection Agency officials yesterday strenuously denied General Electric charges that they hid a 1976 document showing that some Pittsfield homes got PCB contamination from city-donated sludge fertilizer, not GE factory waste the company is now removing from dozens of yards. “This particular report was . . . on the shelves of the EPA library, available to GE and the public,” said agency spokeswoman Alice Kaufman. “EPA has not hidden any documents from GE or the public concerning PCB problems in Pittsfield.”
Friday, May 1, 1998	GE charges EPA hid tainted-soil reports records show Agency know sludge from Pittsfield plant contaminated  Edition: Third Section: Metro Page: A1	Turning the tables on the US Environmental Protection Agency, General Electric officials yesterday blasted the EPA for not turning over a report that shows it knew since at least 1976 that many Pittsfield homes got PCB soil contamination from sludge the city sewage plant gave away as fertilizer. As it battles EPA efforts to tab GE with a potential \$500 million-plus Superfund cleanup bill in Pittsfield and 12 miles of the Housatonic River, GE is working to remove PCB-tainted soil at dozens of homes, ostensibly because they got “free fill” in the 1940s from the company’s electrical-transformer factory.
Tuesday, April 21, 1998	Treasurer plans pro-environment stand in GE vote  Edition: Third Section: Metro Page: B1	State Treasurer Joseph D. Malone told General Electric Co. Yesterday he is planning to vote the state pension fund’s \$300 million worth of GE stock in favor of two environmentalist shareholder questions to pressure the industrial giant to move faster on cleaning up toxic PCB pollution in Pittsfield.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Sunday, April 12, 1998	GE's responsibility in Pittsfield Edition: Third Section: Editorial Page Page: D6	A shift in the long-running controversy over cleanup of General Electric's plant in Pittsfield should not obscure the need to restore the city's economic vitality as soon as possible. GE has hesitated to take that step for several contentious reasons, but it would serve its own long-term interests best by doing so.
Thursday, April 9, 1998	EPA plan to force cleanup greeted with strong support	More than 200 residents turned out to Pittsfield High School last night to hear how the Environmental Protection Agency's regional administrator was turning up the heat on GE.
Thursday, April 9, 1998	Lawsuits begin flying	In lawsuits filed Tuesday in Boston, GE has accused the federal Environmental Protection Agency and the state Department of Environmental Protection of withholding documents related to the investigation and cleanup of GE's PCB wastes in Berkshire County.
Tuesday, April 7, 1998	EPA invokes Superfund to force GE to clean up pollution Edition: Third Section: Metro Page: B2	The US Environmental Protection Agency yesterday invoked the Superfund law, saying it would order General Electric Co. to begin a massive cleanup of toxic chemicals contaminating the Housatonic River and vast tracts of Pittsfield. The EPA's move drew support from environmental groups and Pittsfield city officials, who said the specter of Superfund is the only way to force GE to clean up the PCBs, cancer-causing chemicals formerly used in manufacturing. But GE blasted the move as unfair, and said it would fight it in court.
Tuesday, April 7, 1998	EPA to dredge river	Even though GE and government regulators failed to settle on terms for an expedited PCB cleanup last week, city leaders said agreement on a plan to redevelop half of the 250-acre GE facility was extremely close.
Tuesday, April 7, 1998	GE vows to fight Superfund cleanup	The Environmental Protection Agency said yesterday that it will soon order GE to dredge a two-mile stretch of the Housatonic River, a major step toward a Superfund cleanup of widespread PCB contamination that could ultimately cost half a billion dollars before attorneys' fees.
Tuesday, March 31, 1998	Waters pollute land in Pittsfield again Edition: Third Section: Metro Page: B8	A residential neighborhood on the Housatonic River floodplain was cleaned of PCB contamination but polluted again by rising waters, a federal environmental agency spokeswoman said yesterday. One environmental activist said the new test results underscore the need for dredging the river to remove pollutants. Otherwise, "the floodplain properties will forever be polluted," said Tim Gray, director of the Housatonic River Initiative.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Tuesday, March 24, 1998	Mayor's proposed GE settlement irks many in Pittsfield  Edition: Third Section: Metro Page: B2	Less than a week remains before the Environmental Protection Agency decides whether to make the General Electric Co. plant here a Superfund site, and issues are simmering. Worried that the company might remove the 700 jobs remaining at its plastics division, Mayor Gerald Doyle said Friday that the EPA should negotiate a cleanup plan with the company and avert Superfund status.
Tuesday, February 3, 1998	Deadline for GE cleanup extended	John DeVillars, regional director of the US Environmental Protection Agency, has agreed to a two-month extension of negotiations with the General Electric Co. over the terms of a cleanup plan for PCB contamination here. Last August, DeVillars said he would put GE's 250-acre plant, and the adjoining Housatonic river, into the Superfund program if the parties could not agree on a cleanup plan by Feb. 1. Superfund status would allow EPA to clean the site, then sue GE for up to three times the cost. DeVillars said yesterday that enough progress has been made with GE to warrant an extension to March 30.
Sunday, October 19, 1997	GE accused of delay tactic landowners worry about timing of PCB suits  Edition: Third Section: Metro Page: B1	When Vincent Curro found out in 1987 that land beneath his auto body shop was contaminated with PCBs, he tried to get General Electric Co. to buy his property or at least clean it up. But it took years to negotiate with the company, and no terms were ever agreed upon. By the time Curro considered suing GE, it was too late. The three-year statute of limitations for such lawsuits had expired. Curro now believes that company officials deliberately stalled their negotiations with him. And he and others are worried that GE is using the same tactics now with homeowners affected by the latest discovery of PCB contamination in Pittsfield.
Monday, September 29, 1997	Dueling data citing newer studies, some doubt PCBs cause cancer in humans  Edition: Third Section: Health and Science Page: C2	For now, radiation treatment has beaten back the cancer that once threatened Stephen Trepania's life. But everyday he worries the lymphoma may return, and like many of his colleagues who once worked at the General Electric Co. plant in Pittsfield, he wonders if his cancer was a result of his exposure to PCBs at work. "I just don't know," said Trepania, 52. "So many people are sick, something's got to be related somewhere."



## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Friday, September 26, 1997	Residents' tests show low PCB levels state study of Pittsfield eases some worries about contamination  Edition: Third Section: Metro Page: D19	A state study of people who live near the PCB-contaminated Housatonic River and General Electric plant here has found very low levels of the chemicals in residents' blood, easing some fears that simply living in the area may be a threat to people's health. The study conducted by the Department of Public Health, released at a public meeting here last night, found that nearly all of the 148 people tested had less than 20 parts per billion of PCBs in their blood, with most levels at four to six parts per billion.
Wednesday, September 24, 1997	State orders GE to widen search for PCB-tainted sites in Pittsfield  Edition: First Section: Metro Page: B3	The search for hidden PCB contamination in this city continues to grow as the state last week asked General Electric Co. to test dozens more residential properties and all city playgrounds. This latest request puts the number of homes to be checked for PCBs at about 96, with nearly 40 already tested and confirmed to have some of the chemicals in the ground.
Sunday, August 24, 1997	The damage in Pittsfield  Edition: Third Section: Editorial Page Page: D6	The insidious woes inflicted on Pittsfield and surrounding communities in Berkshire County constitute a fate no one foresaw or could have reasonably expected. Chemically tainted oil from General Electric's 250-acre complex on the banks of the Housatonic River has left a potent legacy of danger across a broad area that frightens people and stifles economic recovery in a region heavily affected by GE's withdrawal.
Saturday, August 16, 1997	Cellucci nods to concerns on GE toxins case says criminal probe may be 'a good idea'  Edition: Third Section: Metro Page: B1	On a tour of several Berkshire County towns yesterday, Acting Governor Paul Cellucci said he was concerned about allegations that a General Electric Co. plant in Pittsfield knew of cancer-causing chemicals polluting the area's neighborhoods and waters, but kept that knowledge secret for years. Asked about the possibility of holding a criminal inquiry to find out what GE knew about contaminants called PCBs, and when they knew it, Cellucci said it was "probably a good idea."
Sunday, August 10, 1997	GE knew of Pittsfield 'liability' for years: Memo cited potential threat from debris dumped at homes	Nearly five years before state officials confirmed high levels of PCB contamination in neighborhoods of this city, General Electric Co. knew of a potential environmental threat from the debris it had dumped on those residential properties, according to internal GE documents obtained by the Globe.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Thursday, December 19, 1996	General Electric agrees to clean polluted area along Housatonic  Edition: Third Section: National/Foreign Page: C19	Under government order, General Electric Co. agreed to the first major cleanup work in its long legal battle with regulators over a river where it released chemicals for years, officials said yesterday. George Wislocki, president of the Berkshire Natural Resources Council, hailed the announcement as "a defining moment for the cleanup of the Housatonic River."
Tuesday, September 24, 1996	Weld turns up heat on GE in river cleanup  Edition: Third Section: Metro Page: B10	Increasing pressure on General Electric Co. to clean up toxic PCBs, Gov. William F. Weld has asked that a 55-mile stretch of the Housatonic River be declared a federal Superfund site. "It's just taken too . . . long," Leo Roy, Weld's undersecretary of environmental affairs, said yesterday. "And General Electric would just as soon continue studying it for years to come."
Wednesday, July 31, 1996	Rivers protection cleared for passage  Edition: Third Section: Metro Page: B1	A landmark bill designed to protect 9,000 miles of rivers and streams in Massachusetts was cleared for passage late last night, after environmentalists won major concessions over a highly toxic site in Pittsfield. The so-called rivers bill will extend state wetlands regulations to properties within 200 feet of Massachusetts waterways. In effect, it will make it much tougher for developers to build near riverbanks.
Tuesday, July 30, 1996	Rivers legislation hits rough water late amendment is intended to aid GE  Edition: Third Section: Metro Page: B1	The Massachusetts rivers protection bill has died six years in a row, but this year was supposed to be different. Rep. Thomas M. Finneran, who had buried the bill four times when he was chairman of the Ways and Means committee, promised to push it after he won a battle to become House speaker. Gov. William F. Weld, who has described himself as "green as a grape" on the environment during his race for US Senate, vowed to sign it. For the first time, the House and Senate both passed versions of the bill.

## LIST OF SELECTED NEWSPAPER ARTICLES

BOSTON GLOBE		
Date	Headline	Lead Paragraph
Saturday, July 27, 1996	GE ordered to clean river Edition: Third Section: Metro Page: B5	Calling it an "imminent hazard to human health," state environmental officials have ordered General Electric to immediately clean up a highly contaminated stretch of the Housatonic River. In 1981, GE entered into a consent agreement with state and federal environmental agencies to help clean up a 55-mile stretch of the river from the company's former transformer plant in Pittsfield to the Connecticut border. This week's order marked the first time that state officials have directed the company to actually dig out some of the contaminated river bottom. Stephen Moore, a spokesman for General Electric, said yesterday the company discovered the pocket of contamination earlier this month. He said it would take weeks to determine the extent of the contamination.
Thursday, March 7, 1996	AG backs owners along Housatonic Edition: First Section: Metro Page: 82	Attorney General Scott Harshbarger is siding with property owners along the Housatonic River in their damage suit against General Electric Co. for PCB pollution of the river. In a class-action suit filed last summer in US District Court, the residents said their property values have been diminished by the pollution. GE's lawyers have asked a judge to dismiss the suit, contending the property owners had three years in which to file a claim and should have known by the mid-1980s that the flood plain along the river was contaminated.
Tuesday, April 18, 1995	Pockets of PCBs persist in Housatonic Edition: Third Section: Metro Page: 20	The Housatonic River's scenic windings against a gentle backdrop of cows and stone fences still draw the city-weary to the Berkshires. But underneath the gentle waters and piled high on the sand bars are tons of gravel contaminated by polychlorinated biphenyls or PCBs.
Sunday, April 4, 1993	PCB concerns tar Riverside in Berkshires Edition: Third Section: Metro Page: 1	Behind him, the Housatonic River flowed full and languid, lapping over its banks, gurgling softly. Stanley Cooke loved that bend in the river, built his dream home here and for more than 20 years has been eating vegetables from a garden he grew at the water's edge. But contamination from PCBs, or polychlorinated biphenyl, found in tests last fall and again this past winter have turned this placid place and other picturesque riverside settings into "a horror" for Cooke and many of his Berkshire County neighbors, the 65-year-old lawyer and longtime Pittsfield resident said last week.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Thursday, May 16, 1985	Less PCB found in Housatonic fish  Edition: Third Section: Metro Page: 28	Levels of cancer-causing PCBs in several sample groups of fish from the Housatonic River declined by 47 percent to 84 percent during a five-year period ending in 1984, according to a study performed by the Connecticut Department of Environmental Protection and the General Electric Co. A total of 277 fish were analyzed by the Academy of Natural Sciences in Philadelphia, the department said in Hartford. In 70 percent of the sample, PCBs were measured at levels below the 2 parts per million considered safe by the federal Food and Drug Administration. The General Electric Co., based in Fairfield, used PCBs in the manufacture of transformers in its Pittsfield, Mass., plant from the 1930s to 1977, the department said. The Connecticut Department of Health Services continues to advise against eating Housatonic River fish taken from the stretch between the Massachusetts state line and Lake Zoar in Southbury.
Thursday, December 15, 1983	New England briefs river pollutants reportedly drop  Edition: N Section: Run of Paper	The concentration of PCB pollutants has dropped below federal limits in fish caught in the Housatonic River in Pittsfield, a General Electric Co. official says. Ronald Desgroseilliers, manager of the environmental programs at General Electric, said Monday a study of 145 fish from the river showed only one sample to have a PCB concentration that exceeded the federal government's limit of 5 parts per million. General Electric, which used polychlorinated biphenyls until 1977 in its plant near the river in Pittsfield, has monitored fish as part of a federal agreement that it would clean up the waste and study its impact. Officials banned sportsmen from eating any fish caught downstream in Connecticut because of the pollution.
Friday, September 9, 1983	State will ask EPA to reconsider sites  Edition: N Section: Run of Paper	In a maneuver designed as much to gain more federal aid as to protect public health, Massachusetts plans to ask the US Environmental Protection Agency (EPA) to reconsider some of the 11 hazardous-waste sites that were rejected last week for inclusion on the federal "Superfund" list. Sites nominated by Massachusetts this year for EPA action but rejected [include]: Housatonic River, Pittsfield, where PCBs and other industrial contamination have been traced to the General Electric Co.

## LIST OF SELECTED NEWSPAPER ARTICLES

<b>BOSTON GLOBE</b>		
<b>Date</b>	<b>Headline</b>	<b>Lead Paragraph</b>
Friday, July 1, 1983	State proposes 13 more Superfund sites  Edition: N  Section: Run of Paper	Massachusetts environmental protection officials recommended yesterday that 13 hazardous waste sites in the state be added to the federal list of top-priority for cleanup. Inclusion on the list makes a site eligible for partial cleanup financing from the \$1.6 billion federal "Superfund" program.
Monday, July 14, 1980	Study says PCB came from Mass.  Edition: N  Section: Run of Paper	HARTFORD – An "inkling" that Massachusetts was the source of PCBs in the Housatonic River is borne out in a study by the Connecticut Agricultural Experiment Station, officials say. The study shows that about 70 percent of the toxic chemical polychlorinated biphenyl (PCB) in the river is concentrated in the area of Woods Pond, below the General Electric plant in Pittsfield, Mass.

---

## SELECTED NEWSPAPER ARTICLES

---

## GE Agrees to Study Massachusetts Plant's Toxic-Waste Discharge

*By a WALL STREET JOURNAL Staff Reporter*

WASHINGTON—The Environmental Protection Agency said General Electric Co. agreed to study the effects of toxic discharges from a GE facility in Pittsfield, Mass.

The agency said that GE, in a consent agreement, agreed to examine the extent of contamination by polychlorinated biphenyls, or PCBs, in the Housatonic River in western Massachusetts and Connecticut. EPA officials said the accord is the first step towards eventual clean-up of the river and surrounding areas, and they praised GE.

"General Electric has been very cooperative in its negotiations," Anne Gorsuch, EPA Administrator, said. Actual cleanup of the river probably would be covered in a later consent agreement, EPA attorneys said.

The agency said PCBs had been used at the facility, and legally discharged, from the 1930s until the 1970s, when PCB use was restricted because of rising concern over health effects. The substances, which were used for many years in electrical transformers and similar equipment, may cause cancer and damage animal reproduction.

State health officials have cautioned since 1975 against eating fish from the Housatonic, citing high PCB levels. EPA officials said that chemical levels in the river's sediments "may pose a continuing source of contamination."

Under the consent accord, the agency said GE will study the river and adjacent areas with an eye towards developing a clean-up plan. Meanwhile, the EPA said, GE will continue the voluntary clean-up of its Pittsfield facility and will report regularly to the government on its progress.

"Decisions will still have to be made concerning a remedial action, but ultimately we can look forward to a restoration of the Housatonic," Mrs. Gorsuch said.

The agency said GE signed the consent accord without admitting to "any of the information on which EPA has based the order."

# GE asks closed session with Council on PCBs

By Judy Katz

Labeling a City Council request that company officials attend a public hearing on PCBs (polychlorinated biphenyls) "inappropriate for General Electric Co.," GE has offered to meet with councilors behind closed doors in a GE conference room instead.

Accepting GE's invitation would appear to put the Council in violation of state law. The open-meeting law prohibits a quorum of a governmental body from meeting privately to deliberate towards a decision.

The Council voted March 22 to hold a public hearing on the status of a consent order signed in May 1981 by GE, the state Department of Environmental Quality Engineering and the federal Environmental Protection Agency. The consent order required GE to perform extensive studies of environmental contamination caused by PCBs and other hazardous chemicals from its plants here.

GE sent its private-meeting counterproposal to City Council President Angelo C. Stracuzzi.

Stracuzzi said last night that he will inform GE that the Council cannot legally attend a meeting that is closed to the public and the press. Councilors did attend a session at GE several years ago, he said, but a squad of newspaper and radio reporters were present as stand-ins for the public.

R. Bruce Farren, GE's manager of communications, said last night that GE is not aware of any legal obstacle to the proposed briefing. The offer, he said, is GE's attempt to respond to the Council's request.

### Not a substitute

Stracuzzi said that a briefing in a GE conference room cannot be a substitute for a public hearing.

"The City Council voted for a public hearing," said Stracuzzi. "I have no choice but to establish a public hearing. Whether GE comes or not is their decision."

If GE wants to hold an open briefing in addition to the public hearing, Stracuzzi said, "I would have no objection."

Farren signed the letter to Stracuzzi, in which GE specified that

the private session in GE Building 42 would be for councilors only. The company offered a choice of dates: April 6, 11 or 13.

Stracuzzi said he received the letter Thursday. In a telephone conversation later that day, he said, he persuaded Farren to expand the invitation to three representatives of the Lakewood neighborhood. But, Stracuzzi said, Farren said he did not want reporters present.

GE purchased and razed several houses in the Lakewood area after traces of toxic PCBs were found in some basements and gardens there. The area was tested because the company discovered a "plume" of PCB-contaminated oil under the East Street border of the neighborhood. The oil apparently leaked from underground tanks that had been removed in 1964.

### For review, comment

In the letter, Farren wrote that "the report that we issued to both the state Department of Environmental Quality Engineering and the federal Environmental Protection Agency was prepared at their request and is in their hands for review and comment."

The EPA solicited public comments on the report, a voluminous study of PCBs in the Housatonic River, last month and expects to issue its response at the end of April. A copy of the Housatonic River study was available for public inspection at the office of the Berkshire County Regional Planning Commission, and its conclusions were reported in newspaper stories.

"It would be premature," Farren wrote, "to discuss the information publicly prior to being studied and commented on by these two governmental bodies."

But, he said, "we do feel we have the right to discuss the findings of our year-long study with official bodies such as the Pittsfield City Council so long as it is not a public forum. While this may not meet the complete desire of members of the City Council, it is the fullest extent

that we feel we are permitted to do until such time as the DEQE and EPA comment on our study."

### Full public hearing

Stracuzzi said the Council's intention is to have a full public hearing on the issue in the Council chamber with representatives of GE, the DEQE and EPA. He said he will discuss the GE invitation with other councilors, but even as a supplement to a public hearing "there is no way the City Council can go to a private session without the press."

He said he will speak to Farren to see whether GE will extend its invitation to the news media. While that will not make the meeting a public forum in the full sense, he said, it would make it an "open forum."

Farren, who was reached at press time last night, said "we will certainly listen and give due consideration" to such a request. But, he said, "at this time our briefing is not a public forum. We will have to wait until we listen to the Council president's information."

## Nominations taken for advisers to Council for Children

Nominations are being taken for election to the citizen advisory board of the Berkshire County Council for Children. The election will be held at the council's annual meeting on May 18 at 7:30 p.m. at Morningside School.

Anyone who lives or works in Berkshire County is eligible to become a member of the council or its board. Persons age 16 and older who have been council members for at least 30 days are eligible to vote for the board candidates.

The council, one of 40 in the state, serves as the citizen advocacy arm of the Massachusetts Office for Children.

Anyone interested in joining the council or being a board candidate should contact the local Massachusetts Office for Children.



# PCBs buried in unreported Pittsfield sites

FRONT  
12-29-89  
FRIDAY

By Steve Moore  
Berkshire Eagle Staff

PITTSFIELD — Hundreds of tons of absorbent material contaminated with PCBs was buried in various parts of the city by GE and its contractors from 1940 through 1974, according to employees of the former power transformer operation.

The claylike material, known generally as fuller's earth and used more commonly as a cat litter, was used daily in small amounts to clean up spilled PCBs (polychlorinated biphenyls) and other liquids. At the same time, large quantities of the fuller's earth were used to filter impurities from PCBs as part of the transformer manufacturing process.

GE employees who worked directly with the material — trucking it away or supervising its use — recalled that at times half a ton of fuller's earth was used every week.

The situation was brought to The Eagle's attention by a retired employee who requested anonymity. It was confirmed through interviews with a number of people. One of them, Romolo Magi, a transformer assembler for 38 years, said he and the men with whom he worked spread fuller's earth before quitting time every day to soak up spilled PCBs.

The spent fuller's earth, according to former GE truck drivers, was taken to a dump on GE property, to the old city landfill — now the site of the Softball Complex — to a site near the Altresco co-generation plant, to the sewerage plant off Holmes Road, to the Rose property in Lanesboro and probably to numerous other smaller sites.

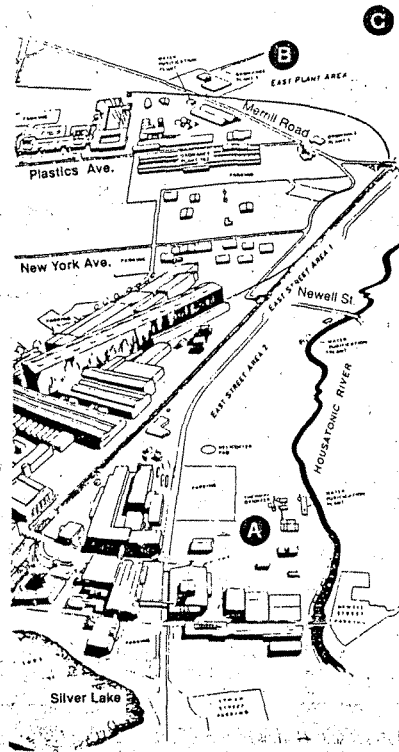
## No mention by EPA

Despite the intimate connection of fuller's earth with PCBs and the amounts of fuller's earth apparently involved, no mention of the material has ever been made by the federal Environmental Protection Agency and the state Department of Environmental Protection, which are administering GE's cleanup of PCBs.

Ronald F. Desgroseilliers, GE's manager of environmental programs and facilities, said that a check of GE records shows only one mention of fuller's earth in connection with PCB filtration. That notation, he said, occurs in a January 1982 report compiled by the engineering firm of O'Brien & Gere for GE in response to a cleanup order GE signed at the time.

In that instance, he said, spills around Building 12E in 1937 and 1938 were cleaned up using fuller's earth. The fuller's earth was then placed in drums and buried somewhere on the GE premises.

Desgroseilliers said that good records on such matters begin in the 1970s when the company became aware of the implications of PCB contamination. The company has not used PCBs since 1974 when they were banned by the EPA as a suspected carcinogen. He said that he had no personal



Material contaminated with PCBs is buried, sources say, at sites marked A, B and C on this map. A is near the thermal oxidizer operation off East Street. B is near the Altresco co-generation plant. C is the old city landfill, which is actually farther from the plant than indicated.

knowledge of the PCB era because he started with GE in 1977.

Neither EPA nor state Department of Environmental Protection officials who were contacted said they were previously aware of the presence of contaminated fuller's earth in Pittsfield.

PCBs were used by GE to retard internal sparking in transformers. In the process, tons of PCBs were lost or discarded. In the meantime, PCBs have been connected with severe skin conditions in humans and cancer in laboratory animals. Though their use has been banned by the EPA, they have not been proven to cause cancer in humans.

## Purging the river

Because of their confirmed presence in the Housatonic River, GE has been actively working to find ways to purge the river of the chemicals. It is now replacing an old dam at Woods Pond on the Lee-Lenox bor-

PCBs buried  
Continued on Page B7

# PCBs buried in unreported sites

Continued from Page A1

der, behind which large concentrations of PCBs have been found. The company is also spending millions of dollars to remove PCBs from properties in the Lakewood neighborhood near the plant and from a dump site in Lanesboro.

A retired GE driver, William J. Todd, said that he and other drivers hauled contaminated fuller's earth to the city landfill in specially made disposal bins. The bins, roughly 2 feet by 3 feet by 8 feet long, held about 2 cubic yards of material when full and were emptied twice daily, once in the morning and once in midafternoon.

A second former driver, who requested that his name not be used because he is still working at GE in another capacity, said that he also hauled contaminated fuller's earth to a portion of GE's on-premises dump at the "scrap heap." He described the dump as a 60- or 70-foot hole into which the fuller's earth, along with other materials, was dumped.

The scrap heap was located across from the East Street gate, near the present location of the thermal oxidizer complex. It was a marshaling yard for supplies and raw materials discarded by GE that could be bought or taken free by GE employees.

## PCB site near Altresco

Another dump site he used, the driver said, was an area to the west of the site on which Altresco is now building a co-generation plant for GE. At a recent public meeting, Altresco officials informed the neighbors that they could not plant trees on portions of the site because of contamination from PCBs. The site lies between Altresco and the Allendale School, but is separated from the grammar school by high fences and a wide GE entrance road.

Desgroseilliers said that the entire area of the co-generation plant was tested and a section was found that was free of contamination. Other portions of the area, he said, do contain PCBs and he added that Altresco's operations have "strayed" from the original site into abutting areas.

However, Desgroseilliers said, planting trees there should not be a problem if clean earth is laid on top of the contaminated sections.

A former GE technician who is retired and who also asked to re-

main anonymous, said that for every 9,280 gallons of Pyranol — the commercial name for GE's PCB preparation — it took 300 pounds of fuller's earth to filter out the impurities.

More than half of the Pyranol was refiltered after having been used in transformers, he said. Though the fuller's earth was drained as well as possible, he said, each batch retained several gallons of Pyranol when discarded.

Edward L. Bates Jr., an engineer in assembly and test who is now retired, estimated that more than 17 million gallons of Pyranol was processed by GE over the 38 years of its use. That figure would represent about 280 tons of PCB-contaminated fuller's earth for primary filtration at that department alone.

But exact figures are difficult to pin down. Many of the people contacted by The Eagle could not remember how much fuller's earth they saw or where it went. A number are dead. But all who would speak, including Desgroseilliers, confirmed that fuller's earth was and is a normal part of day-to-day operations for cleanup of spilled liquids. Many also confirmed that it was dumped in a variety of places. At the same time, virtually no one blamed GE for practices that were thought at the time to be harmless.

One driver said that it was common practice to dump oil, solvents and other liquids on the flood plain behind ordnance Plant 3 off Merrill Road. A tank truck with a road-oiling sprinkler behind it would drive through the field with its valves open, he said. Similar disposal techniques were used along the company's railroad tracks to keep down vegetation, he said.

Todd said that he remembered releasing a white liquid derived from transformer cooling processes and mixed with machining fluids along the railroad tracks for the same purposes.

Machining fluids are among the substances included in a mortality study of GE workers conducted by a University of Lowell epidemiologist. The study, which has been completed, is being reviewed now by GE and will be ready for public release sometime next month.

Other sources said that some of the discarded and PCB-contaminated oils were used to oil dirt roads in Lanesboro, and in New Lebanon and Nassau, N.Y.

Stephen F. Joyce, of the Western Region office of the Department of Environmental Protection, said that test wells drilled at the city's old landfill did not show much PCB contamination. He added that such a finding is not surprising because PCBs are relatively insoluble and do not migrate very much in ground water.

Joyce said that while DEP considers the issue of fuller's earth very important, the department now is forced to choose its targets carefully because of budget restraints. DEP has a list of more than 700 confirmed hazardous waste sites in the Western Region and has a staff of 19 on the cases.

Priority sites, he said, are those that threaten drinking water supplies, something that does not ap-

pear to apply to any of the fuller's earth sites right now.

To bolster its water supply, Pittsfield had considered drilling a well to tap an abundant underground supply in Brattlebrook Park off East Street. But it dropped that plan in 1980 because PCBs had been detected in a 1977 test.

## GE suspected in '80

An Eagle news story at that time quoted the head of the Department of Environmental Quality Engineering as saying the proximity of the aquifer to the landfill and GE made both prime suspects as the source or sources.

Gary Gosbee, chief of EPA's Massachusetts and Rhode Island Waste Regulation Section, said that he was not aware of fuller's earth dumping and could not be sure how, if at all, the issue might tie into the order now being prepared that will govern GE's cleanup of the Housatonic River.

Michael Nalutinski, coordinator of EPA's pre-remedial group, said that his staff will inspect sites in Pittsfield, including the old landfill,

within 18 months. He said he plans to do more investigation to see how the sites in question fit with what EPA already knows.

## Impact remains to be seen

The impact, if any, of buried fuller's earth on GE cleanup operations remains to be seen.

According to Jack Batty, GE's director of public relations at corporation headquarters in Fairfield, Conn., GE has already spent more than \$50 million in an effort to remove PCBs from the environment. It also faces an upcoming order from EPA to clean up the Housatonic River of the chemical and it has had a vast extraction system operating in the Lakewood section for several years to remove contaminated oil from the ground water.

The corporation is also committed to a \$20 million cleanup of the Rose family's property in Lanesboro, which turns out to be one destination of contaminated fuller's earth.

# Residents told to steer clear of PCBs in soil

By Gae Elfenbein  
Berkshire Eagle Staff

PITTSFIELD — Residents who live and play in the flood plain of the Housatonic River between the GE facility and the Woods Pond Dam in Lenox were advised by state officials last night to minimize their contact with soil and sediment that sampling has shown contain concentrations of polychlorinated biphenyls in various levels.

The Department of Environmental Protection has ordered GE to take steps to clean up or take other measures to remediate contamination on 16 properties along the river. GE has agreed to DEP's determination on two of the properties but is exercising its right to dispute the determinations on the others, Alan Weinberg of DEP said at an informational session at Berkshire Community College last night.

PCBs were used in the manufacture of transformers at GE up through the 1950s and were dumped or carried into the surrounding soil and water over the years. They are a suspected carcinogen.

GE has agreed to clean up the river

PCBs, continued on B8

## DEP warns residents to avoid PCBs-contaminated areas

*B. Elfenbein*

■ PCBs, from B1

and surrounding areas but how that cleanup will be done is still being negotiated. Until a long-term solution to the pollution is agreed upon, Weinberg said DEP is requesting that short-term measures be undertaken.

Those include such simple things as fencing off or posting property to warn of "hot spots" to more expensive steps such as removal of the soil.

In the meantime, residents are being urged to minimize their potential exposure by avoiding direct contact with the soil and avoiding raising a lot of dust.

Canoeists, especially those who use the Decker boat launch where high readings were found, should avoid contact with river sediment. If sustained contact takes place, they should rinse their skin, DEP said.

Concern about the effect of contact with PCBs on those who take part in river cleanups prompted George S. Wislocki, director of the Berkshire Natural Resources Council, to suggest that such volunteer operations be halted and that GE be made to pick up the cost of such activities.

Weinberg replied that the removal of debris from rivers, while laudable, was a voluntary effort and should not be GE's responsibility.

Rachel Fletcher of Great Barrington expressed concern about the effect cleanups have on children, who she said spend much time in the river and are encouraged to help keep it clean by joining adults in such efforts.

Several times she questioned Nancy Bettinger of DEP about the possible danger, especially after Bettinger said she did not think children should help in the cleanups.

Recanting somewhat, Bettinger said, "We are not saying there is a health risk. If you are concerned you should take whatever steps you can to limit contact."

Further, Bettinger said, the level of PCBs in the river near Great Barrington is practically nil, although she agreed that further testing should be done since work on the upstream Rising paper mill dam has taken place.

Weinberg said that all the guidelines, such as avoiding eating vegetables grown in the flood plain and avoiding tracking soil

into one's home, have been issued to reduce the possibility of exposure for those who wish to "be prudent."

In response to a question, Weinberg said the milk from cows that have grazed in the flood plain has been tested and found to be free of PCBs.

Weinberg said that a representative from the state Department of Public Health will meet with residents at a session to be held sometime in August.

Several praised that step, including Dr. Steven A. Myers, who said he is involved with cancer studies at Berkshire Medical Center.

Thanking DEP for the progress made on the cleanup, he said, "It's been a long and arduous task. I finally feel like we're making some headway."

# Long-term river cleanup focuses on PCBs

By Gae Elfenbein  
Berkshire Eagle Staff

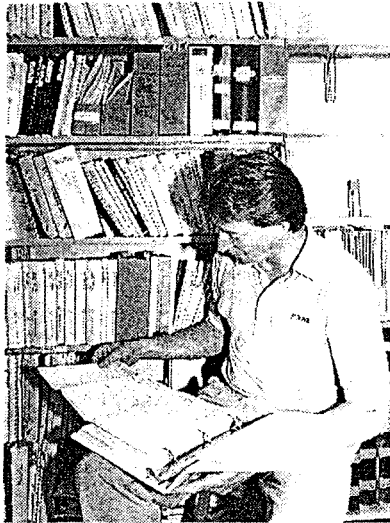
PITTSFIELD — If polychlorinated biphenyls, more commonly known as PCBs, were as easy to remove from the Housatonic River as tires, shoes and shopping carts, the fish would be edible — and a lot of people would be unemployed.

While yesterday's effort to remove debris from the banks and waters of the river accomplished a short-term goal, the ultimate quest — a swimmable, fishable river by the year 2000 — remains elusive.

However, in part because of pressure from a frustrated public, several events in the past year will bring that day closer, say spokesmen for environmental agencies and GE, whose Pittsfield plant on East Street is the prime source of the 40,000 pounds of PCBs that have accumulated in the sediment at the bottom of the river:

► The state Department of Environmental Protection and the federal Environmental Protection Agency have signed a memorandum of understanding that will end years of wrangling over jurisdiction and procedure.

► DEP, GE and the EPA have also settled their differences over a permit issued by EPA setting forth a schedule for the



Joel Librizzi

**John Nalepa studies Housatonic pollution at the Berkshire Athenaeum.**

cleanup. The revised permit will be issued for public scrutiny and comment at the end of the month.

► And to further speed the regulatory process and provide more consistent monitoring, DEP and EPA have established special units to deal solely with GE's Pittsfield facility and the river.

"We should have a final permit — effective and enforceable — by the middle of November," said Bryan Olson, newly appointed by EPA to work exclusively on the river cleanup.

Of the jurisdictional squabbling that has gone on in the past, Olson acknowledged, "We were stepping on [DEP's] feet. . . . One of us would approve one thing and the other would disapprove. . . . and GE was caught in that whole web."

## New era started

He and his counterpart at DEP, J. Lyn Cutler, agree that a new era of cooperation has begun. "We have none of that history," said Olson. "It's a fresh beginning."

Despite a hiring freeze, Cutler was appointed section chief by DEP to work with two others exclusively on the GE site.

"Twenty-five percent of all man hours spent in this office were spent on GE projects and to have several different people working on it was not effective," Cutler said.

Complaining about what was viewed as boondoggling by the agencies and GE, several groups of residents began agitating last year for action under the umbrella group called the Housatonic River Initiative. Their cry became "a swimmable, fishable river by the year 2000."

With Rep. Christopher J. Hodgkins, D-Lee, throwing in his weight, a number of public meetings were held to update the public and answer questions.

Praising the citizens who got involved, Cutler said, "They have been the driving force. If it weren't for them, my position would not have been created."

"There is still a lot of work to be done," Cutler said, "but the project is picking up momentum. The goal of the department

PCBS, continued on B4

Sunday 9/19/93 Berkshire Eagle

# Future may see fishable river

■ PCBs, from BI and EPA is to get that river as clean as possible.

She praised GE as being "pro-active" and said, "I don't think people know how much work has been done. We've minimized further contamination. There has been a lot of cleanup at the source."

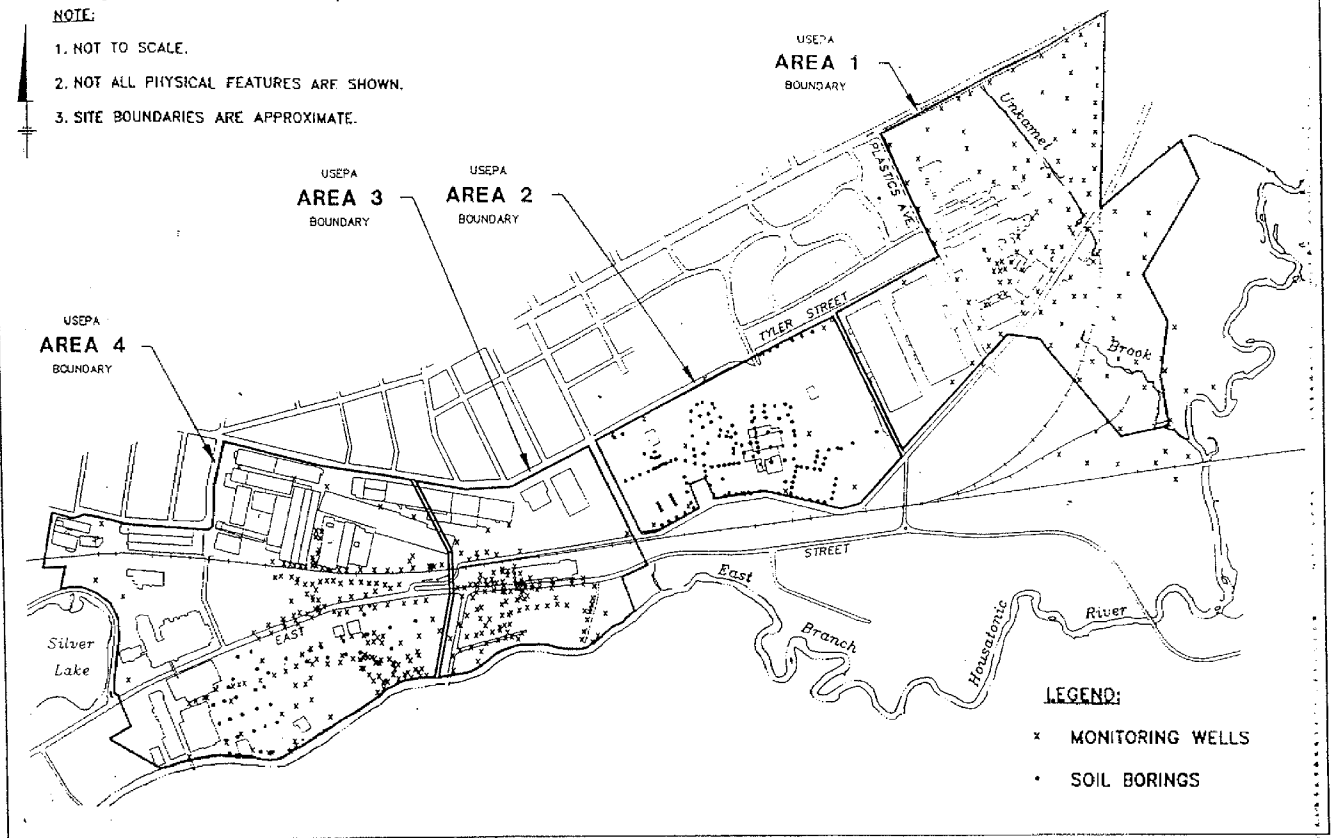
PCBs, of which there are hundreds of varieties, were used at GE from 1929 to 1977 when the company voluntarily stopped using Pyranol in the manufacture of transformers. PCBs were also used in the production of paints, adhesives, auto parts, carbonless copy paper, printing ink and plastic wrappers.

It was not until the late 1960s that concerns about PCBs began to surface. The EPA banned the compound in 1979, naming it a possible carcinogen.

PCBs have been linked to some skin diseases and changes in liver enzymes. In animal studies, the kind of PCBs that lie in the sediment of the Housatonic river bed have been shown to cause gastric and reproductive disorders and cancer, although GE questions the validity of some of those studies.

## Dangers debated

The debate about the danger of PCBs continues, surfacing most recently in a report that suggested a possible link between PCBs and breast cancer.



Map of GE's facilities in Pittsfield, past and present, shows that the plants and the surrounding area are peppered with soil borings and more than 450

monitoring wells, which are used to check the quality of ground water. The DEP and EPA are aiming for a fishable, swimmable river.

The debate about the danger of PCBs continues, surfacing most recently in a report that suggested a possible link between PCBs and breast cancer.

DEP officials have said that events such as yesterday's river cleanup do not pose a threat, but they have suggested that people who have been exposed to the sediment might want to scrub thoroughly.

Elaine Krueger, chief of environmental toxicology for the Department of Public Health, said DPH will hold an informational session on PCBs at the Lee Senior Center at 7 on Thursday. The agency has not specifically studied residents in Berkshire County but has studied other areas in Massachusetts, she said.

"At one time, PCBs were seen as a life-saver," said GE spokesman Stephen C. Moore. A thick substance, it was thinned with chlorinated benzene and used in transformers instead of flammable oils that would have been a threat to workers or others.

The mixture, called Pyranol, was distributed by pipelines from a central storage tank to various parts of the sprawling plant, Moore said.

Years of leaks and spills and waste disposal practices that are now illegal led to pockets of pollution on and off the property.

The Lakewood section was further polluted when, for flood control, the course of the river was changed and former oxbows were filled with toxic materials from a number of sources, such as the city landfill and other manufacturers besides GE, Moore said.

### *The project is picking up momentum. The goal of DEP and EPA is to get that river as clean as possible.*

Coal tar residue left from storage tanks that were erected on part of the property in the late 1800s by Berkshire Gas, which later sold the land to GE, has also contributed to the pollution.

Under federal orders to take corrective action, GE has "easily spent over \$50 million in 10 years" investigating and developing a plan for remediation, said Ronald F. Desgroseillers, GE's manager of environmental programs and facilities.

That division employs 130, about 50 of them dedicated to the PCB problem. The company also employs a number of consulting firms that generate "extremely expensive reports," Desgroseillers said.

The GE facility and surrounding area is peppered with soil borings and more than 450 monitoring wells, which are used to check the quality of ground water.

The legacy of pollution includes a pool of oil about 6 feet underground that was once 8 feet thick. GE built a slurry wall to stop the movement of the oil toward the river, devised a method to pump the oil and polluted ground water out and erected a thermal oxidizer and a water treatment plant on the property to remove and destroy the PCBs.

"We have pumped out around 600,000 gallons of oil," Desgroseillers said.

In addition, some polluted areas have been capped to prevent further runoff of PCBs into the soil.

Air around the plant is also being monitored and GE has agreed to work with the downstream owners of 16 flood plain properties that have been tested and determined to contain a measurable level of PCBs.

Fish downstream still show the presence of PCBs although the amount has dropped, Moore said.

#### **Better in Connecticut**

In Connecticut, the river has seen "significant improvement," said Charles Fredette of that state's Department of Environmental Protection. The levels of PCBs in fish have dropped with sun fish and perch in two river-fed lakes being declared edible, Fredette said.

Unfortunately, he said, "there was a short-term increase [of PCBs] in the trout in Cornwall and Sharon in 1992."

That spike "appears to be associated with the Rising Dam project," he said, referring to the rebuilding of a dam at the Rising Paper Co. in Housatonic last year. Although the company took steps to contain PCBs that had been buried in sediment behind the weakened dam and GE monitored the work, Fredette said some PCBs must have escaped in a sluiceway where water was diverted during construction.

"There apparently was a significant release of sediments," he said. The Massachusetts De-

partment of Environmental Management, which oversees aquatic life, "has been cooperating with us and we are continuing to monitor the situation," he said. "We are hoping it is a short-term trend."

Over the long term, "we have seen a very gradual decline in PCB levels in fish and aquatic invertebrates," he said.

Most promising is an experiment in bioremediation that GE has been conducting in Lenox at the Woods Pond dam, four miles downstream from the Pittsfield plant. The company rebuilt the dam to form a containment area at a cost of \$2.5 million.

There, a laboratory experiment is being conducted that scientists hope will eventually lead to a way to completely destroy PCB molecules.

Joan Blake, a toxicologist with the EPA who issued a permit allowing the experiment under the Toxic Substances Control Act, said that preliminary results are good.

"We know that PCBs degrade, but it's a slow process," she said. The experiment seeks "to speed up the natural process" by adding a chemical to the sediment that will dechlorinate the PCBs, rendering them less toxic and less stable so that they will degrade naturally.

Terming the experiment "a monumental undertaking," she praised GE for openly sharing its research with peers.

The project is providing valuable scientific research, Blake said. "I wish they'd put that in the 1970s. Then we'd have lots of data."

Acknowledging that the public might prefer to see the experiment gone and the PCBs out, Blake said, "If they decide to dredge the river to remove them, so be it. But while they're out there waffling back and forth, at least we can keep on studying."

Praising GE for its commitment, Blake said, "A lot of people are

looking at a lot of aspects of this problem. I think we'll crack it eventually. Pittsfield is just one part of it."

"We are all beginning to know each other and are building up a body of good literature," she said. "Even if it fails, we still learn something."

John Nalepa, a Dalton resident who supervised yesterday's effort there, recommended that people educate themselves by reading the myriad reports that are on file at the Berkshire Athenaeum.

He became involved when PCBs were found near the Allendale School in Pittsfield. Although he has since moved from that area, his interest in the complex prob-

lem has grown.

"I learned it affected more than the school yard," he said, "and that there's more to this than carrying signs."

People, he said, "have to press the issues."

As a focal point, he said, "the river will be our ally in addressing other areas of concern."

## In Brief

9/21/93

### *B. Eagle* Cleaning the river without ruining it

a fishable, swimmable Housatonic in the next few years.

The problem of getting polychlorinated biphenyls (PCBs) out of the Housatonic River and its flood plain has been vexing enough without the added complication of regulatory agencies getting in each other's way. That has ended now, however, with the memorandum of understanding between the two agencies, the state Department of Environmental Protection and the federal Environmental Protection Agency. Together the two have worked out a revised schedule for cleanup with GE that should be available for public scrutiny by the end of the month. However, given all the doubts about how one can — to paraphrase that Vietnam-era line about destroying a village to save it — cleanse the river without ruining it, it is probably unfair to expect that schedule to be a simple recipe for

---

The Berkshire Eagle, Sunday, May 1, 1994

# PCB cleanup going well, GE says

By Lewis C. Cuyler  
Berkshire Eagle Staff

PITTSFIELD — For what may have been the first time, a GE official said yesterday the company is seeing a pinprick of light at the end of the PCB tunnel.

Jeffrey G. Ruebesam, the company's manager of plant compliance and plant remediation, told a group attending an open house on PCB cleanup yesterday that because the materials had been banned from the manufacturing process during the 1970s, "there are only so many PCBs out there that are left."

In addition, Steve Moore, GE environmental spokesman, said that the operation of the PCB incineration plant off East Street along the banks of the Housatonic has eased somewhat as the supply of PCBs has diminished.

## Into the 21st century

Neither official could predict with any certainty when the cleanup would end, and both acknowledged it could go on into the 21st century.

But progress is being made, they said, in cleaning up the GE site.

PCBs, or polychlorinated biphenyls were mixed with oil for the manufacture of transformers, a key business for GE through the mid-1980s. PCBs, however, were banned when they were identified as a suspected cause of cancer in the early 1970s, a link never firmly established.

However, before the company stopped using the compound, thousands of gallons of PCB-laced oil had saturated floors of buildings or leaked from storage tanks into the ground. Much of it

leached it into the Housatonic River through ground water and through an underground plume between East Street and the river.

GE began cleaning up the site through incineration during the early 1970s, and in 1978 the operation fell under new regulations developed by the federal Environmental Protection Agency for PCB incineration. The EPA has overseen the operation since.

On Tuesday the EPA plans a hearing at the Berkshire Athenaeum to obtain public comment on the approval process for a third test burn, the periodic procedure the agency follows for insuring all regulations are met. The hearing will be at 7 p.m.

Yesterday's open house was to explain the process before the Tuesday hearing and to provide the opportunity for questions and answers. About 30 attended, most of them from the neighborhoods bordering GE and the Housatonic River.

## Trenches, pumps

Ruebesam explained that the company had dug a trench alongside the river bank and filled it with clay to prevent seepage. It has also built two water pumps to remove the oil in the under-

ground plume, constructed the thermal oxidizer to incinerate the PCBs, and built two water treatment plants to separate the PCBs from the water. One treatment plant is for storm runoff; the second is to clean the oil plume.

The oxidizer, Ruebesam said, burns most efficiently when the operation is continuous. Accordingly, GE accepts PCBs from other sites so that the burn is fueled by about 50 percent GE materials and 50 percent from elsewhere.

The oil-laden PCBs are broken up into very fine droplets sprayed into the burning zone, much like heating oil is sprayed into a furnace. The material is combusted at 2,150 degrees Fahrenheit, then afterburned to take care of any residue. Last year, he said, 680,000 gallons were burned.

The resulting gas is cooled and "scrubbed" before it emerges from the stack as water vapor. The stack is monitored continuously so that the burn will shut down if the emissions fall below acceptable purity levels.

Every operation is monitored by the EPA, he said, and the oxidizer has exceeded standards.

After the briefing, Moore and Ruebesam escorted the group on a tour of the cleanup facilities.



# Action on PCBs in river 3 years off

By D.R. Bahlman  
Berkshire Eagle Staff

LEE — Although it will probably be at least three years before any firm decisions are made about how best to remove polychlorinated biphenyls from the Housatonic River, people living in towns along the river should start considering the issue now, representatives of two regulatory agencies said yesterday.

The occasion was a forum at the Senior Center attended by residents and elected officials from the seven Berkshire County communities through which the river runs.

They came to hear from representatives of the federal Environmental Protection Agency and the state Department of Environmental Protection about the status of efforts to assess the extent of PCB contamination in the river and the measures that could be taken to alleviate or eliminate it.

"Miracles do happen," said Douglas Luckerman, a lawyer with the EPA, who had earlier observed that his agency and the DEP have been working closely together to settle on a remediation plan for the river.

The other key player in that process is General Electric Co. The company used

---

*'We could decide what technologies are best, but if they're not locally acceptable, it's not going to work.'*

— DEP engineer

---

PCBs in its transformer manufacturing operations until 1977, and PCB-laden oil from the plant seeped into the river. GE was not represented at yesterday's meeting.

Although he agreed with James M. Boyle, a Pittsfield city councilor, that the pace of officially mandated and GE-funded cleanup efforts on the river has been frustratingly slow, Luckerman urged Boyle and others not to let "cynicism" affect their support of the work now being done.

In essence, said Luckerman, he and his three colleagues on yesterday's panel are willing to run on their records of accomplishment over the past three years

In that time, he said, the remediation process has progressed to the point where the downstream migration of contaminants is being stopped, a comprehensive assessment of all sites is under way, and a study that evaluates alternative technologies and techniques for cleaning the sites has been done.

The latter study was funded by GE, though, and the Housatonic River Initiative, which sponsored yesterday's session, has numerous objections to it.

Laurie Martinelli, who works part time for the citizens' group, said its comments concerning GE's conclusions covers 20 pages.

By the end of the meeting, representatives of Dalton, Pittsfield, Lenox, Lee, Stockbridge, Great Barrington and Sheffield had agreed to meet again in the near future to plan their towns' roles in the river cleanup process.

"Fairly soon, we're going to start talking turkey," said Alan Weinberg, an engineer in DEP's Springfield office. "As regulators, we could decide what technologies are best to use, but if they're not locally acceptable, it's just not going to work."

Weinberg and Luckerman were joined on the panel by Lyn Cutler of DEP and Bryan Olson of EPA.

# CITY & TOWN

B

Friday, November 18, 1994

## Agencies aren't going to stop PCB burner

By Gae Elfenbein  
Berkshire Eagle Staff

PITTSFIELD — The 22-year-old PCB-destroying thermal oxidizer set up on GE's East Street property will apparently be approved by state and federal environmental officials, but a lawyer hired by the city to review the matter said last night that he is concerned about some changes in the operation.

Speaking to about 65 residents of the Lakewood area and other concerned individuals at a forum at the Italian-American Club on Newell Street last night, Alan M. Weinberg, regional chief for the state Department of Environmental Protection, said his agency has already approved GE's proposal, but he noted that the EPA has the final say.

### 'More protection'

Tom Olivier, a lawyer with the Environmental Protection Agency, said his agency "proposes to issue this reapproval."

Asked why, Olivier said: "It provides more protection. There is no point in delaying. It really ought to be in place."

However, he said, if at some time in the future information developed that changed the conditions of the permit, new demands could be made if they meet legal requirements and are backed up with approved data.

Weinberg agreed, saying that "it will be better than it was before" and that "it met our standards."

The oxidizer was set up in 1972 to burn oil laden with polychlorinated biphenyls that had accumulated in the earth near the Housatonic River. The facility incinerates the oil, after it is separated from underground water, which is also treated and then disposed of in the river. Emissions from the oxidizer are monitored, but residents have continued to question the safety of the operation, which also burns PCB-laden oil from other sites.

The permit does not expire but comes up for reapproval every five years, a process that is apparently reaching its conclusion while the residents are still trying to understand how it works.

Last night, Jeffrey Bernstein of the environmental law firm of Bernstein, Coshner & Kimmell, who was hired by the City of Pittsfield, said the city is also

reviewing the permit and intends to do what it can to protect the residents and the environment within the limits of the law.

The renewed permit will allow GE to burn oil-laden water in addition to straight oil, a departure from past practice and a new process, Bernstein said. "I'm not too happy about that."

The change would allow GE to skip the separation step, Weinberg acknowledged. The company has pumped out so much oil from under the ground that the ratio of oil to water has probably dropped and separating the two is becoming more time-consuming, he agreed. There were no representatives from GE present at the forum, which was arranged by the Housatonic River Initiative, a coalition of environmentalists, sports enthusiasts and river users.

Residents repeated objections to GE's being allowed to bring in oil from around the country to treat, saying the operation has become a business.

But they were told that nothing in the permit prevents such a step. In fact, said Kim Tisa, a scientist

PCBS, continued on B6

# Thermal oxidizer to keep burning

## ■ PCBs, from B1

with the EPA, incineration is still the only approved way to destroy PCBs, a compound that was used in the manufacture of transformers before it was determined to be hazardous by the EPA and banned in 1979.

## Toxicologist

By that time, oil laden with the compound that had spilled at the plant over the years had sunk into the ground and polluted the river. GE has been working with the DEP and the EPA on cleaning up both the land and the river, although the process has been criticized for being so slow.

An assessment by a EPA toxicologist, Mary Beth Smuts, who was charged with determining the risk to residents posed by the incinerator, was criticized by many including Laurie Martinelli, hired by the HRI to help deal with the PCB issue.

In response to repeated questions from the audience, Smuts said she could use only data from that site and could not factor in any risks posed by other chemicals that might be in the air from other sources.

She said there was no point in waiting for the results from an impending state Department of Public Health study of the area because the conditions of the permit could be changed then if it was warranted.

"I've been as protective as possible," she said defensively. "I'm in this business to protect your health."

Unassuaged, residents continued to express frustration with the permit process, as well as with the environmental mess along the river in general and GE in particular.

## Advice from lawyer

In an effort to calm the group, Bernstein advised that residents would continue to be frustrated if they did not try to understand the constraints of the law and then try to change them.

"You have to change some of the standards," he said. Legal battles that are thrown out of court don't accomplish anything, he warned.

In response to a question, Olivier said that if the thermal oxidizer was not allowed to continue to operate, the PCB-laden oil would have to be shipped elsewhere and burned in an incinerator "someplace else."

For Del Virgilio, the real question was when is GE "going to clean up this damn filthy place?"

Former Mayor Remo Del Gallo, who has operated a bar on Newell Street for years, agreed.

The ground around GE was so soaked with oil that there was once a fire in the ground itself, shooting flames into the air 150 feet high, he recalled.

"They left us with a massive environmental mess and they should clean it up," Del Gallo said.

But judging by reactions last night, the residents would rather the cleanup be done without a thermal oxidizer in their back yard.

# GE broadens PCB river warning;

General Electric Co. has broadened the scope of its warning not to eat fish, frogs and turtles caught in the Housatonic River. In addition to signs, first posted on the river in 1982, GE has provided city and town clerks and other fishing license outlets in Berkshire County with warning slips to issue to all license buyers.

They read: "Housatonic River Warning, Housatonic River Fish Contaminated with PCBs. Do not eat fish, frogs or turtles caught in the Housatonic River. Please release unharmed any fish caught in the Housatonic River."

"For more information contact: Massachusetts Department of Environmental Protection (413) 784-1100, U.S. Environmental Protection Agency (617) 565-3420, Massachusetts Department of Public Health (617) 727-7170."

Steve Moore of GE environmental community relations said that "plastic, more durable signs" have replaced the



**Ted Giddings**

Our Berkshires

Regarding the present signs, Martinelli said, "we don't think they will last long."

original paper signs and have been posted from Pittsfield south to the Connecticut line at bridges, parking spots and other access points on the river.

Laurie Martinelli, staff representative of the Housatonic River Initiative, said that last fall the EPA and the state DEP requested General Electric to "do re-posting of the river."

Martinelli said HRI disagreed with the content of the signs because "they didn't say PCBs were harmful." Also, she added, "we felt the posting was grossly inadequate, and we gave them a list of un-posted places."

# GE to close its thermal oxidizer

B. Eagle  
6/16/95

By Gae Eifenbein  
Berkshire Eagle Staff

PITTSFIELD — As of Nov. 30, Newell Street residents will no longer have to wonder about what is in the cloud of steam that drifts over them from GE's thermal oxidizer because the company plans to shut down the facility.

GE spokesman Stephen Moore said the incinerator, built in 1972 to destroy PCBs in waste oil from GE's power transformer operations, is no longer a money-making proposition for GE. The company not only burned PCB-contaminated oil from its own plant but incinerated it for other companies seeking an approved disposal site.

"It's a business decision," said Moore. "It's something we had been considering one way or another for more than year. It's a money loser."

Jeffrey M. Bernstein, an environmental lawyer hired by the city, said he was suspicious of GE's decision.

## 'Doesn't completely square'

"That surprises me," he said yesterday. "There's something more there than meets the eye..."

On one hand, Bernstein said, "I believe GE is extremely motivated by the bottom line so it's credible, but it doesn't completely square with what I know about this facility" as a money-maker.

Mayor Edward M. Reilly said he heard on Friday that GE had decided to shut down the thermal oxidizer for economic reasons.

"I think there has been a lot of concern among people in the neighborhood about the health perspectives," Reilly said. "I know there will be an impact on some jobs. But considering the level of concern that has been expressed, I'm not sure this isn't for the best."

Moore said when the plant is shut down, six people will lose their jobs but because of a complex bumping system, they may not be the ones now working at the plant.

Neighbors and other activists were critical of the oxidizer at a hearing held by the federal Envi-

ronmental Protection Agency in December prior to reauthorizing the facility. The federal government lists PCBs as a probable carcinogen and the neighbors were worried about the impact of burning PCBs on their health.

The vapors coming from the stack are constantly tested and found to exceed federal standards.

The oxidizer, located between East Street and the Housatonic River, consists of two small buildings and a high-tech furnace. It

GE, continued on A4

## ■ GE from A1

was erected with little to-do before the EPA placed PCBs on its list of hazardous materials and before the state required public hearings for such facilities to operate.

Since then, the oxidizer has treated more than 450,000 gallons of PCB-contaminated oil, turning the hazardous compound into water, carbon dioxide and table salt.

Much of the oil has come from a plume in the ground that formed over the years from spills at the plant. While not mixed with oil intentionally, PCBs that were also spilled were attracted to the oil in the ground.

Oil-contaminated ground water is still being pumped from the ground but the ratio of oil to water has grown so small that GE asked EPA to allow the incinerator to also burn water.

Last month, an EPA spokesman said the agency was on the verge of issuing a new permit for the plant that would have allowed that change but as of yesterday, it had not. The Eagle was unable to reach that person yesterday.

Moore said yesterday he did not know why the permit has not yet been issued but that the permit was not a factor in the decision to shut down the operation.

Even if the facility had been approved to also burn contaminated water, Moore said, "it still would have been a loser. That would not have made it go from red to black."

### High heat

PCBs were used to insulate transformers used in public buildings because of their fire-resistant qualities. Destroying the PCBs requires extremely high heat so the incinerator must operate at a constant 2,150 degrees.

Using the facility to destroy less hazardous wastes that could be destroyed with less heat has been compared to using a bulldozer to dig up a dandelion.

Although GE has been treating

contaminated oil from around the country, Moore said that source was beginning to dry up. Monsanto Chemical Co. was the only maker of PCBs and the company stopped producing them in 1977.

"One of the problems is there's only a limited amount of PCB material out there," Moore said. "Once it's gone, it's gone. It's a market that is definitely finite."

However, the company is trying to sell the plant and has two interested parties, said Moore. A buyer would have to dismantle the plant and move it to another location.

In the meantime, GE will continue to accept oil from other areas until Sept. 1. For the remainder of the time, it will continue to treat oil pumped from the ground and separated from the ground water.

After Nov. 30, when the plant will be shut down, GE will ship its contaminated oil to an approved disposal site.

Bernstein said his firm will still represent the city as GE works with the EPA and the state Department of Environmental Protection to gain approval for a plan to clean up pollution from the contaminated plant site and the Housatonic River.

"There may be some issues about closure" of the oxidizer, said Bernstein.

# GE is ordered to clean up contaminated stretch of river

PITTSFIELD (AP) — Calling it an "imminent hazard to human health," state environmental officials have ordered General Electric to immediately clean up a highly contaminated stretch of the Housatonic River.

The pocket of sediment near one of GE's old transformer plants contained 15,000 parts per million of PCBs perhaps from an old spill, J. Lynn Cutler, section chief for the state Department of Environmental Protection told *The Berkshire Eagle*.

In 1981, GE entered into a consent agreement with state and federal environmental agencies to help clean up a 55-mile stretch of the river from the company's former transformer plant in Pittsfield to the Connecticut border.

However, this week's order marked the first time that state officials have directed the company to actually dig out some of contaminated river bottom.

Cutler could not be reached Friday, but other DEP officials said the department has been using safety guidelines established by the federal government for topsoil in its assessment of PCBs in the river sediments.

Those guidelines require soils to be cleaned when they contain levels of one to two parts per million of PCBs and describe levels above 10 parts per million as hazardous to human health.

GE had used polychlorinated biphenyls or PCBs in the manufacture of electrical transformers from the 1930s until the 1970s. The chemicals have been shown to cause cancer in animals, and are suspected of causing cancer in humans.

Much of the company's clean up work over the past 15 years has involved finding and blocking leaks of PCBs into the river. For years new pools of PCB-laden oil kept being discovered in old river beds and the groundwater underneath the industrial city and in various other sites.

The highest concentrations of PCBs previously found in the river were 905 parts per million.

"We thought 905 ppm was one bad case," Cutler told the *Eagle*. "This just surprised everyone."

Stephen Moore, a spokesman for General Electric, said Friday that the company discovered the pocket of contamination earlier this month as part of its ongoing checks.

He said officials suspect a small area is involved, but it

could take weeks to determine the extent of the contamination along the bank and river bottom.

It was found near a spot where the concentrated chemicals were brought into the plant for mixing and where there had been a spill in the late 1960s, Moore said.

"It seems high, but it isn't surprising given that the mixture that spilled may have contained 500,000 parts per million of PCBs," he said.

## Portrait in persistence

Long after Lo's rampage, reform tak

## Coming in short

... be in Pittsfield's future / B1

## Won't close

Potala decides to stick wit

# The Berkshire Eagle

For home delivery at less than 42¢ daily,  
phone Eagle Circulation at 496-8355.

© 1996 Pittsfield Publications, Inc.

Pittsfield, Massachusetts, Thursday, September 5, 1996

## PCB river hot spot sets parts-per-million record

By Theo Stein  
Berkshire Eagle Staff

PITTSFIELD — New samples taken from the Housatonic River bottom near GE's Building 68 contain the highest levels of PCBs yet found in the river.

State and federal environmental officials say the high readings near the old transformer oil mixing building off East Street have solidified their resolve to require that GE remove the contaminated material.

A sample taken by GE 20 feet out in the river at a depth of 3½ feet contained 54,000 parts per million. The highest that had been discovered in the Housatonic previously was 15,000 ppm.

And a sample extracted 6 feet down in the riverbank registered 102,000 parts per million of PCBs — a 10 percent concentration of the suspect chemical. That compares to a previous known high of 76,000 parts per million in the riverbank in

the same area.

The EPA threshold for an immediate health hazard in an area not used for residential or recreational purposes is 50 ppni.

But officials point out both of these samples were taken at least 3 feet underground and therefore don't represent a health threat to a passer-by.

One fear, however, is that scouring action by seasonal floods will stir up the bottom sediments and flush new contamination downstream and out

onto the flood plain. The site's location near the headwaters of the river compounds this concern. A researcher with the National Oceanic and Atmospheric Administration characterized the probability of downstream migration as "great."

GE has suggested that it might propose capping the hot spot instead of digging out the contaminated material.

But the new readings have reinforced the determination of environmental officials that the

contamination uncovered by the sampling to date will have to be excavated.

"We know we'll have to remove all that," said Bryan Olson, project manager for the Environmental Protection Agency's office of site remediation and restoration.

At the same time, the GE testing indicates that the PCBs are running deeper than they suspected in the soil under the river and in the riverbank.

PCBs, continued on A5

Concentrations are heavy and go deep into the soil. Buried PCBs aren't considered a threat to passers-by. The threat is that they keep washing downstream.

28 Pages — 50¢



# PCBs from AI

Officials indicated that they may not require removal below a certain depth because of the complications of extracting it and the fact that the deeper it is the less chance anyone will come in contact with it.

Olson added that GE has been ordered to install a deep well to develop more data on what's happening underground, work that will begin today.

Stephen C. Moore, a spokesman for GE environmental affairs, declined to discuss the ongoing sampling process in detail, but he cautioned against taking the samples out of context.

"I think we would prefer to wait until we characterize the whole site," he said. "There are going to be various levels [of contamination] throughout the site. [The latest findings] may seem more significant than they are."

The new sample readings indicate to officials that there was a lot of highly concentrated material released at that site, according to J. Lynn Cutler, a section chief for the Department of Environmental Protection's Bureau of Waste Site Cleanup.

Cutler said pure PCBs would have been in a gelatinous form unless they were heated. "So you might get clumps of this gel in the soil, which may account for why we're finding erratic levels."

While the company acknowledges that the building was a PCB mixing station, it has attributed the high PCB levels to a single 1,000-gallon spill of pure PCBs in 1968 after a storage tank ruptured.

## A suspicion

But environmental officials suspect that there was more than one significant release at the site. Cutler and Olson even prefer the word "release" to "spill" in their letters to GE.

So the agencies are requesting additional information on a series of "drainage pits" near Building 68 identified on hazardous waste maps of the site.

"We knew this building had been used to mix PCBs before," Olson said. "That's why we had

them do sampling to begin with. I, at least, wasn't aware of the tank rupture. I'm not sure that's the only contributor. Other people have had suspicions about this being a possible release area."

The presence of chlorobenzenes in one sample tends to support their suspicion, Cutler said. Chlorobenzenes were an ingredient mixed with PCBs to make GE's proprietary transformer oil blend, which went by the trade name Pyranol.

She said the amount of chlorobenzenes found was too small to pose a major health concern, but added that the discovery has prompted the agencies to require GE to add certain tests to its sampling regime.

The depth to which the contamination has migrated is a potentially more intractable problem, both Olson and Cutler said.

"I think the fact that it's deeper is really the issue, not those levels," Olson said. "We've already found levels of 76,000 ppm in the riverbank, 36,000 ppm in the riverbank, and 15,000 ppm in the river, so we knew there was the chance we could find something that high."

"You can only dig so deep" when removing contaminated sediments from the river, Olson added.

## Runs deep

"We have to look at the levels and determine what would be a risk and what wouldn't be a risk," he said. "The deeper it is, the less of an exposure threat it is. You can only dig so deep before you get into complications with ground water tables and the river itself."

Cutler and Olson explained any PCBs that have migrated

below the water table are likely to be extremely concentrated and in a "non-aqueous phase" or not dissolved in water, making them much more difficult to remove.

Olson said nearby riverbank deposits showed PCBs at concentrations of more than 1,000 ppm at a depth of 12 feet. "So I suspect it's down there pretty deep."

Another issue is whether the deposit is stable or continuing to migrate, Olson said. "If it could move to where people could get exposed, we'd want [GE] to do something about it."

Cutler said that even though the vertical extent of the contamination is still uncertain, the horizontal extent still seems somewhat limited. Samples taken immediately upstream and several dozen yards downstream show more modest levels of PCBs.

## One-week extension

"We do know there was not any significant contamination found by the Newell Street footbridge, and just upstream there's definitely a defined extent," she said. "We don't know how far across the river it has gone. GE started investigating immediately next to the riverbank. Now they're doing semi-circles downstream, upstream and across the river."

Because of the additional tests, the two agencies have granted GE a one-week extension to submit the findings of its soil surveys. Some of the results are being filed as they are obtained from the lab, Cutler said. "They've been filling in the blanks on the map," she said.

Cutler noted that the company has asked for a further extension through the end of

the month for the submission of its Immediate Response Action Plan. She added that the agencies may grant this request, but will require GE to submit a conceptual plan by next week.

## Range of measures

She said the plan, since it is not based on definitive information, will allow the company to suggest a range of corrective measures.

"At least it will tell the agencies whether we're in the same ballpark as far as their approach to remediation," she said.

PCBs, or polychlorinated biphenyls, were first produced in the early 1930s for a wide variety of uses that ranged from being an extender in insecticides to being an insulator in transformer fluid.

GE's transformer manufacture and rehabilitation plant made extensive use of the chemical before it was phased out in the late 1970s. An estimated 39,000 pounds of the chemical has adhered to sediment in the river.

The chemical is a suspected cancer-causing agent in humans and has been proven to cause skin and liver problems. PCBs have also been shown to disrupt the reproductive cycle of birds that consume contaminated prey.

Olson noted that this is not the first major remediation project at the 200-acre GE factory.

The company has been drawing off a subsurface plume of the chemical that has been migrating downhill from the main plant north of East Street toward the river.

"GE has taken out something like 1 million gallons of oil from that plume over the last 15 years," Olson said. "That's a pretty major remediation in itself."

# Board balks at GE plan for soil

By D.R. Bahlman  
Berkshire Eagle Staff

PITTSFIELD — The city's Conservation Commission has balked at a state agency's request that it sign off on plans advanced by General Electric Co. for the removal of PCBs from a 490-foot section of Housatonic River bank in the Dawes Avenue-Deming Street area.

The request for "emergency certification" of the project came in a letter to the commission from the state Department of Environmental Protection late last week, said Terry L. Plantier, the commission's agent.

At issue is the final phase of GE's work to remove polychlorinated biphenyls from the riverbank behind several residential properties on Deming Street. Most of the work, which consisted of excavating and removing about 2,000 cubic yards of contaminated soil from three Deming Street properties, has already been done.

ires

## Imminent hazard

It was accomplished as an "immediate response action" after the state determined last year that the levels of PCBs in the soil constituted an imminent hazard to human health.

PCB levels of up to 360 parts per million were measured in topsoil in sections of the riverbank. Samples from greater depths (up to 2 feet) in other spots revealed PCB contamination levels as high as 2,410 parts per million, according to the DEP's letter.

State regulations say that an imminent hazard to public health exists when concentrations of total PCBs exceed 10 parts per million at the ground surface or within a depth of 6 inches below the surface.

For several months, the Conservation Commission and engineers retained by GE have been discussing the company's proposals for restoration of the riverbank following the excavation of PCB-contaminated soil. GE's latest proposal, which the commission tabled at a meeting on Aug. 22, calls for reconstruction of the bank using a combination of natural vegetation and rock-filled wire baskets, known as "gabions."

The commission delayed action on GE's plan and asked

The Berkshire Eagle, Monday, September 9, 1996 — B5

## PCBs from B1

company officials to return with more information about what effects their plan would have on factors including the "hydraulics" of the river.

Representatives of two environmental groups attended the Aug. 22 meeting and urged a delay, arguing that GE's proposal appears to call for taking steps that are more permanent than temporary. They said that's a drawback because federal and state agencies have not yet settled on a "cleanup standard" (an acceptable level of PCB contamination), and the reconstruction of the bank using anything other than natural materials could entomb PCBs in concentrations higher than the standard.

Noting that GE's latest plan involves the use of fewer gabions than earlier versions and that the preservation of mature trees is proposed, Mary Holland, the DEP's regional director, told the commission that the project "reasonably balances the interests and concerns of the commission, the requirements for abating imminent hazards, the

interests of the public, and the interests of affected residential property owners."

The commission, in a letter signed by Plantier, disagrees.

"The commission does not believe this project constitutes a bona fide emergency," she wrote. "[It] believes that if the requested additional information is submitted, and is adequate to allow the commission to approve the proposed work, the work could be accomplished this construction season. In the unlikely event that the work is not finished this construction season, or is not started, the bank could be temporarily protected from spring flows using sheeting or other protective measures."

In addition, Plantier's letter said, the commission worries that "armoring" PCB-contaminated soil behind gabions "would set a precedent for this project and for other bank stabilization projects as well. . . . The commission questions the value of a temporary remediation, which, if not approved as a permanent solution, will require additional disturbance of the resource areas of the Housatonic River."

# hot spot in river, GE says

## Plan to cover PCBs falls short of demands

By Theo Stein  
Berkshire Eagle Staff

PITTSFIELD — GE has proposed armoring a PCB hot spot in the Housatonic River and an adjacent riverbank behind its Building 68 as a "temporary" remedy until a final, permanent cleanup agreement with environmental agencies can be reached.

But a Department of Environmental Protection official who received the proposal Monday said the plan falls short of the agencies' goals both in concept and coverage area.

The ongoing debate over how to deal with this small stretch of the river underlies a deeper argument over cleaning up the Housatonic in general, and by implication, the Hudson River as well. GE's bill for the overall work could be immense. Gov. William Weld has called for declaring the Housatonic from GE to Great Barrington a federal Superfund cleanup site.

### Protective layers

The company has proposed armoring 20,000 square feet of river bottom along 510 feet of the channel as well as 65 linear feet of riverbank.

By armoring, GE means covering the river bottom with layers of a fabric barrier, sandy silt and stone. Along the riverbank, the company has offered to dig up the first 2 feet of the contaminated soil and replace it with a 1-foot-thick "engineered vegetative cover"—essentially a fiber fabric into which pre-selected vegetation is rooted.

Ronald Desgroseilliers, the company's manager of environmental programs, said the efforts would keep any trespassing humans from contact with PCBs there and would prevent PCBs from washing downstream.

Desgroseilliers said the GE plan would "fully abate" the health hazard and render unnecessary

GE, continued on A4

## GE from A1

deeper underground soil tests that the agencies have requested.

But DEP Section Chief J. Lyn Cutler said, "At first glance, the plan does not appear to meet" the criteria set forth by the agencies earlier.

She said these are not necessarily the boundaries that the agencies would agree to in defining the area, either.

The state DEP and the federal Environmental Protection Agency ordered GE to develop the proposal, called an Immediate Response Action Plan, in the wake of soil studies this summer that revealed the heaviest PCB contamination in the Housatonic watershed yet.

### High PCB counts

The EPA and DEP determined that the PCB contamination, up to 54,000 parts per million in underlying river sediments and 102,000 ppm in buried riverbank soils, posed an imminent hazard to human and ecological health.

The company attributes the high PCB levels in the area to a single spill of a 1,000-gallon tank of the PCB compound Arochlor 1260 in 1968.

In their Aug. 20 letter to GE, Cutler and her EPA counterpart, Bryan Olson, wrote that armoring the riverbank might be an acceptable temporary solution, but that "based on a review of available information, the agencies believe that removal [of the river sediments] is the only remedial action which can abate the imminent hazard."

Cutler and Olson said removal would prevent the sediment from being uncovered, eliminate the chance that humans or organisms would be exposed to any future release and maintain the existing flood storage capacity.

They added that removing the sediment now would "work toward the completion of the action begun by GE in response to the 1968 release."

The GE response, written by Desgroseilliers, stated that the agencies' desire for removal of contaminated soils and sediments was "unwarranted" and "premature."

He said that water testing has shown that the contaminated sediment in the river bottom is now stable because PCBs aren't showing up in the water there. The proposed armoring plan would be able to withstand the ravaging currents of a 100-year flood, he said.

"We are proposing a proven technology to address the concerns identified by your agencies," he wrote.

Desgroseilliers also disputed several assumptions on which the agencies base their demands. The assumption that a human trespasser age 9 to 18 would walk or play in the Building 68 area two times per week for seven months per year for nine years is "grossly overstated" given the limited access to the site, he said.

GE spokesman Stephen C. Moore noted that the riverbank in question is steep, fenced and posted with warning signs, making it an unlikely playground for area youths.

Desgroseilliers asserted that the agencies have overstated the environmental risk because, while individual birds or fish might come in contact with PCBs, the area's small size, the shallow, sandy nature of the river and its proximity to an industrial site make it "an undesirable ecological habitat."

He wrote that "Given these factors, there is no sound basis for concluding that the PCBs in this area would cause ... impacts in the population, sub-population, community or ecosystem level..." which is the threshold for an imminent ecological risk determination.

Desgroseilliers said the company recognized the proposed solution was temporary. "We would expect to have additional discussions with your agencies concerning the final remediations for this area," he wrote.

The Berkshire Eagle

CIRCULATION DEPARTMENT

# GE agrees to remove hot spot

## Firm yields to pressure from EPA

By Theo Stein  
Berkshire Eagle Staff

PITTSFIELD — Bowing to federal pressure, GE has agreed to remove 3,000 tons of PCB-contaminated river sediments and riverbank soil from a stretch of the Housatonic River near Building 68.

Environmental officials and river advocates hailed yesterday's announcement as a "defining moment" in the decades-long battle with the company over the chemicals.

"It's the best holiday present the Berkshires have received in a long time," said Tim Gray, executive director of the Housatonic River Initiative.

GE agreed to the removal plan on Dec. 9, the EPA announced yesterday, but only after the Environmental Protection Agency threatened to use its Superfund authority to do the work itself and then sue GE for the cleanup cost. Such a move would have exposed GE to triple damages under federal laws.

### The strongest tool

"It was a situation that cried out for the strongest tools we have, and this is the strongest tool we have for this situation," said John DeVillers, the EPA's regional administrator. "Our goal here is to get the site cleaned up as quickly as possible."

The EPA estimates the cost of removal at between \$2 million and \$5 million. The work must be completed by October 1997. The hot spot is located south of East Street between Lyman and Newell streets.

This is believed to be the first time the company has agreed to remove contaminated river sediments anywhere in the nation.

"At long last we're seeing real progress in the cleanup of the Housatonic River," said Leo Pierre Roy, an undersecretary at the state Executive Office of Environmental Affairs. "This is huge."

It was also the first time that Superfund laws have been brought to bear against Pittsfield's former corporate jewel.

DeVillers said the agencies will continue to work together to "keep the pressure on" the company for further river cleanup projects. He said the coordination between the state Department of Environmental Protection and the EPA was the key to their success.

"There is no daylight between the Mass. DEP and the EPA in this case," echoed Roy.

That pressure includes Gov. William F. Weld's formal request to the EPA in September

GE, continued on A4

## Scope of Work

- Removal of 550-foot-long swath of river sediments to a depth of "sampling refusal," or bedrock.
- Removal of a 170-foot wedge of riverbank adjacent to the Building 68 site from an existing chain-link fence down to the water table and out to the river's edge.
- Removal of fencing, utility lines and structures, possibly including Building 68 itself.
- A minimum of 3,000 tons of material will be removed, more if additional contamination is found. An estimated 20,000 pounds of PCBs are contained within.
- Backfilling of the riverbank and riverbed to restore habitat.
- Implementation of appropriate health and safety precautions during the work. The downstream migration of disturbed sediments is a particular concern.
- Off-site disposal of PCB-contaminated soil in approved landfill facility. Incineration if concentrations are too high for landfilling.
- Work must be complete by October 1997.

## GE from At

to have the Housatonic listed as a national priority Superfund site.

Yesterday's announcement is seen as advancing that larger river cleanup because of the supporting documentation now completed by EPA officials.

Sampling along the river began 15 years ago, but it wasn't until this past summer that the hot spot was discovered.

Concentrations as high as 54,000 parts per million have since been discovered in river sediments there. Surveys of bank soils have returned readings as high as 102,000 parts per million in that location. The previous high reading from the river was 1,000 parts per million. By EPA definition, anything over 50 ppm represents an imminent health hazard.

Twice GE rejected official calls for removal, maintaining that "armor" the pollution, or anchoring it under concrete or rock so it could not migrate further downstream, would be sufficient.

"We felt that this did not constitute an imminent hazard and we still believe that," said company spokesman Steve Moore. "In negotiations, we decided the best thing to do was to go ahead."

The agencies felt otherwise, especially since the deposit sits at the head of the watershed, where a flood or other catastrophe could spread pollution over property in the flood plain.

### A big chunk

"We have a pretty good sense that by getting the hot spot, we're getting one of the biggest chunks in the whole system," Roy said.

DEP researchers estimate that over 20,000 pounds of the chemical, or more than 10 tons, is contained in the contaminated deposits.

For decades, GE used PCBs as a stabilizer in transformer oil, which company workers mixed in Building 68 off East Street.

GE has attributed the massive deposit to a single 1988 accident in which a 1,000-gallon tank of pure PCBs ruptured, spilling the heated chemical into the river and onto the bank, where it cooled and congealed in heavy concentrations.

But environmental officials have found records of "drainage pits" on hazardous waste maps and suspect this was a possible designated release site. The company has disputed this, arguing that PCBs were too valuable to simply pour into the river.

GE-sponsored research indicates that the cancer risk to humans from PCBs in the environment is less than the EPA had assumed. Exposure also causes skin and liver problems in people as well as serious reproductive damage to animals like fish and birds.

The work order requires GE to remove a 550-foot deposit of river sediments to a depth of "sampling refusal," or bedrock, a 170-foot wedge of riverbank adjacent to the Building 68 site from an existing chain-link fence down to the water table and out to the river's edge, as well as fencing, utility lines and structures, possibly including Building 68 itself.

### Heavy digging

A minimum of 3,000 tons of material will be excavated using conventional equipment.

But the EPA reserves the right to require that even more be removed if hazardous levels of PCBs are found nearby, according to Bryan Olson, the EPA administrator overseeing the Pittsfield cleanup. Armoring deep deposits may be allowed if removal isn't feasible, he said.

"You run into real safety issues when you start excavating below the water table," he noted. "Water starts infiltrating the area so fast, you get a situation where the soil becomes like quicksand. In that case, we'd be worried as much about safety as getting stuff out."

The bank and riverbed will then be backfilled to restore habitat for wildlife.

Officials are also concerned about the downstream migration of disturbed sediments. Levels of PCBs in trout caught in the Housatonic in the Connecticut towns of Cornwall and Sharon showed a sharp spike in 1992 after work on Rising Pond Dam in Great Barrington stirred up sediments trapped in the impoundment.

"Our contacts at the Connecticut DEP have indicated that they're willing to accept short-term risks if it means the removal of a constant threat," said J. Lyn Cutler, section chief at the Massachusetts DEP's Bureau of Waste Cleanup in Springfield.

GE will be required to dispose of PCB-contaminated soil and sediment in an approved landfill facility. Material recently taken from the former Sprague Electric plant in North Adams was trucked to a landfill in Model City, N.Y. Material removed from a GE remediation project on Deming Street was sent by rail to Utah.

Cutler noted that if concentrations are too high for landfilling, some material may have to be incinerated.

The work will start this spring.

In the meantime, Olson said that officials will continue to look for new hot spots like the one found last spring. They'll also be working with the company in the continuing effort to clean up contaminated residential properties in the flood plain.

# General Electric agrees to clean polluted area along Housatonic

ASSOCIATED PRESS

PITTSFIELD - Under government order, General Electric Co. agreed to the first major cleanup work in its long legal battle with regulators over a river where it released chemicals for years, officials said yesterday.

George Wislocki, president of the Berkshire Natural Resources Council, hailed the announcement as "a defining moment for the cleanup of the Housatonic River."

However, questions linger over prospects for cleaning up other contaminated parts of the river, which runs 150 miles from this state's Berkshire Mountains through Connecticut into Long Island Sound.

In a 1981 legal agreement, the company vowed to clean a 55-mile stretch of river between its now-vacant manufacturing complex and the Connecticut border.

Under state and federal orders, GE agreed Dec. 9 to remove about 3,000 tons of polluted soil from a 550-foot section of river bottom and bank beside a plant where the company once used polychlorinated biphenyls, or PCBs, to manufacture electrical

transformers. It released the chemical in that spot 28 years ago, before it was widely viewed as a possible cause of cancer.

New pools of contamination have been discovered over the years. The stretch to be cleaned up now was found last summer.

"We are pleased that GE is finally accepting its corporate responsibility to remove this historic contamination from the Housatonic River and thereby eliminate a serious public health and environmental threat," said John P. DeVillars, regional administrator for the US Environmental Protection Agency.

Asked if this work might eventually amount to a complete cleanup for GE, company spokesman Steve Moore said, "I think that's one of those things that needs to be clarified."

Johanna Hunter, a spokeswoman for the Environmental Protection Agency, said the agreed work "will clean up the highest concentration and the highest contamination." But EPA officials insist it is just a first step.

"This is ... a very important beginning," added Tom Stokes, a

spokesman for the Housatonic Valley Association. "I think there's a great deal more to be done."

Work is expected to begin as soon as February and end by October. Hunter said it would cost \$2 million to \$5 million; Moore said only that it would cost more than \$1 million.

GE had proposed capping contaminated soil so the pollution could not spread. But government regulators said stronger action was needed because the site is an imminent health and environmental hazard.

"We felt that this did not constitute an imminent hazard, and we still believe that," Moore said yesterday. "In negotiations, we decided the best thing to do was to go ahead."

"They've resisted this for quite some time, and they are now doing the right thing," said Leo P. Roy, the state's undersecretary of environmental affairs.

The federal government is considering adding the site to the Superfund cleanup list. Such a designation could let the government do additional cleanup with federal money and try to recover the cost and triple damages from GE in court.

# Brownfields: Taking the Initiative

## A legacy of pollution at GE plant

By Theo Stein  
Berkshire Eagle Staff

The GE site includes about 5 million feet of buildings on 250 acres in the north-central section of the city south of Coltsville.

The Housatonic River forms the southern border of the property and Unkameet Brook flows through its eastern portion. Consequently, portions of the facility lie in the 100-year flood plain of these water-courses, or the area that might be expected to flood once every 100 years.

In 1972, GE acquired land owned by the former Berkshire Gasification Plant, which operated during the first half of the century. Releases of coal gas wastes occurred on the property, which is south of the tanks. GE also purchased adjacent properties either for expansion or because of soil or ground water contamination.

Both GE and Berkshire Gas Co. have been notified that they are responsible for contamination of the site. From 1983 to 1987, GE's transformer division manufactured transformers and other electric products. This division was the source of most if not all of the PCB contamination at the factory grounds and in Silver Lake and the Housatonic River.

PCBs are a family of dense, stable organic compounds which, in their pure form, are between 20 percent and 60 percent heavier than water.

Their stability and fire-resistance made them popular for applications inside or near buildings and mines, where oil-filled transformers created a significant fire hazard. GE used PCBs for more than 40 years in the manufacture of transformer fluid used to insulate approximately 3 percent of the country's transformers made here. Pyralin contained from 45 percent to 60 percent PCBs.

GE's use and disposal of PCBs within and around the plant followed accepted practices of the time. On the property, GE has used a landfill, an unlined waste lagoon and three surface water bodies — the Housatonic to the south, Unkameet Brook to the east and Silver Lake to the southwest — for hazardous waste disposal.

Waste-water discharges into the Housatonic were allowed under permits issued by state and federal environmental agencies. In addition, wastes from GE were used as fill materials in at least eight of 10 oxbows that were created when the Army Corps of Engineers realigned the channel of the river during a flood control project in the late '30s.

Some of the oxbows lie on GE grounds; two oxbows lie in the Lyman Street parking lot, three lie along East Street.

Other oxbows lie on private land in the Newell Street area, to the east and southwest of the plant.

A breakdown of the most contaminated areas follows.

### The Housatonic

PCBs and other contaminants have affected the river sediments and organisms. Sediment has been deposited in the flood plain during floods. Dams limit the downstream migration of PCB-contaminated sediment.

The average concentration of PCBs in the river sediment is 17 parts per million, the maximum concentration, discovered near Building 68 between Newell and Lyman streets, is 54,600 ppm. Flood-plain PCB concentrations average 10 ppm, with a maximum of 2,410 ppm discovered.

The EPA considers PCB concentrations over 10 ppm to be an imminent health hazard.

### Silver Lake

This body of water in the center of Pittsfield was long used as a dumping ground for PCBs, heavy metals and other toxic compounds. Many residents believe that pollution was the reason the lake didn't freeze for many years, but that tale is apocryphal. The real reason it didn't freeze was that GE used to draw cold water from the lake while generating electricity in an adjacent power plant and return hot water to it at the rate of 48,000 gallons a minute. The average concentrations of PCBs in Silver Lake sediment is 420 ppm, the maximum is 20,689 ppm. The lake covers 11 acres.

### East Street Area I

This site is bounded on the north by the Housatonic River, on the east by the Housatonic River, on the south by the Housatonic River, and on the west by the Housatonic River. The site contains PCBs, but the chemical was found in five oil plumes that migrated to the river, perhaps as the result of interconnections between the PCB and mineral oil distribution systems.

Oil was first discovered on residential properties in 1962 and a collection trench was installed three years later. In 1964, the tanks were deactivated or removed. PCBs were found in a manhole, residential basement sump and surface soils in 1978.

GE subsequently discovered a large plume of subsurface oil floating on the ground water table in the general area of East Street and replaced the trench system with a collection pump. Oil has also been found in deep wells sunk on the site.

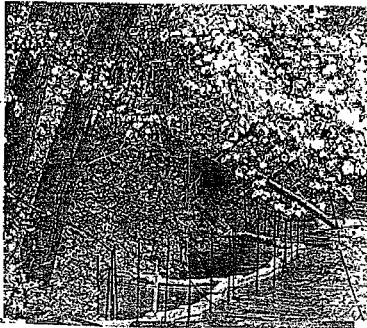
Between 1979 and 1986, the pumps reduced the main oil plume to several smaller pockets. The plume covered 3.2 acres in 1983, but was reduced to 0.12 acres by the fall of 1994.

In 1980, the DEP determined that oil had migrated into the Lakewood neighborhood.

Ground water wells have been found to contain solvents and some metals. The wells suggest that there has been no significant impact to shallow ground water quality despite long-term



Wearing protective gear, geologist Michael Zarenski takes a sample from the freshly drilled site characterization well in East Street Area II. Since the 1970s, more than 250 wells and water pressure meters have been installed to determine the source, extent and the direction of a large plume of oil beneath the ground.



GE used PCBs for more than 40 years, ceasing in 1976, three years before they were banned.



Floating foam dams called 'pigs' absorb oil and other pollutants that would otherwise seep from the bank into the Housatonic River. They are changed regularly.

### East Street Area II

The entire 134-acre site is part of the GE property. Its borders are Newell Street to the east, Building 100 to the north, Buildings 63 to 66 in the west

and the river to the south. Most of it is covered by fill.

The East Street II site includes the former transformer manufacturing operations, the Berkshire Gas plant, a metal scrap yard, and a filled oxbow containing coal tar and other wastes. A number of demolished buildings, leaking underground and above-ground storage tanks, leaking conduits, leaking drum storage areas and a scrap yard have bequeathed solvents, acids, metals, varnishes, fuels, PCBs and other wastes to the surface water, ground water and soils.

In 1973, GE purchased land from the Berkshire Gas Co., which operated a coal gasification plant from 1953 to the mid-1950s. An oxbow on the Berkshire Gas site was filled with contaminated sediment dredged from the river. In addition, Berkshire Gas deposited between 9,000 and 12,000 cubic yards of spent oxide and wood chips, 12,000 cubic yards of coal ash and cinders, 900 cubic yards of tar sludge and thousands of gallons of coal-tar liquids in various parts of the oxbow.

Since the late 1970s, more than 250 ground-water monitoring wells and piezometers (which measure water pressure) have been installed to determine the source, extent and the direction of a large plume of subsurface oil. When originally discovered, the plume was 1,200 feet wide and occupied 675,000 square feet. Several smaller plumes were isolated from the main one. Tests show the plumes contain PCBs at levels up to 53,000 ppm. Their primary source seems to be piping in and around Building 3-C.

A slurry wall was installed to isolate main oil plumes from the Housatonic River in the early 1980s. From 1983 to 1986, 460,000 gallons of oil were recovered from the East Street II site and more than 116 million

gallons ground water were pumped and treated. The plume has been reduced from 22 acres in 1986 to 13 acres in 1994 and 7 acres in 1996. But as the size of the plume continues to shrink, it will become exponentially

### Unkameet Brook

This 130-acre site occupies the eastern portion of the GE property and includes the former ordinance systems plant on

plume composed mainly of polynuclear aromatic hydrocarbons, a family of chemicals shown to cause tumors in lab animals.

In low concentrations, the polynuclear aromatic hydrocarbons have been shown to affect the growth, development and feeding of aquatic organisms.

Soil tests have turned up toluene, trichloroethene, xylene and chlorinated hydrocarbons as well.

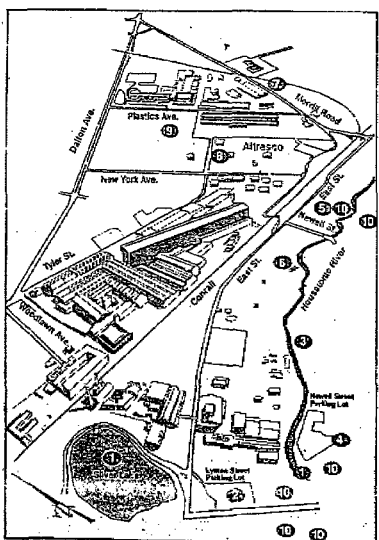
Soil borings have also revealed high concentrations of PCBs — up to 53,387 ppm — in the 4- to 6-foot depth interval. In addition, soil tests from the Building 68 PCB spill returned readings of 12,000 ppm.

former lagoon was up to 4-foot thick and included contaminants like PCBs, benzene, trichloroethylene, toluene, lead, arsenic and mercury.

The Unkameet Brook site contains a dissolved plume of volatile organic compounds including benzene, toluene, methylene chloride and chlorobenzenes.

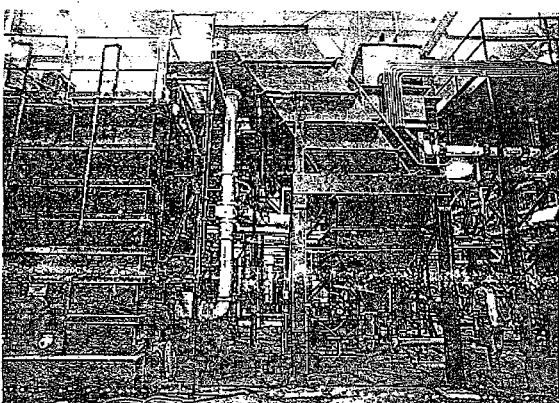
### Hill 78 landfill

This 57-acre site includes the Allresco cogeneration plant. GE used the area as a landfill from 1940 to 1980 and was later used to store soils with PCB concentrations with less than 50 ppm from 1980 to 1982. Average PCB concentration 493 ppm, max 120,000 ppm.



PCB contamination has been found in several different areas skirting the GE property. Identified here by number, they are: 1. Housatonic River, Silver Lake; 2. Lyman Street; 3. Newell Street area adjacent to river; 4. Newell Street parking lot; 5. East Street Area I; 6. East Street Area II; 7. Unkameet Brook area; 8. Hill 78 landfill area; 9. Allendale School yard (area was capped in 1991); 10. Housatonic River oxbows.

### Photos by Ben Garver



Treatment plant inside Building 840 can process 750,000 gallons of ground water per week, resulting in 2,000 gallons of sludge. Each 1,000 gallons of sludge produces about a cubic yard of waste, mostly silt contaminated with PCBs, that is disposed of in Texas.

# Regulators, GE weigh Superfund

By Theo Stein  
Berkshire Eagle Staff

PITTSFIELD — GE has said it is willing to continue negotiations with environmental regulators, even if its 250-acre facility and 55 miles of the Housatonic River are nominated as a Superfund site — a signal that such an announcement may be only days away.

But the company reiterated that it will vigorously oppose any move to finalize the Superfund designation, which would put the site on the National Priority List.

After a site is nominated, there is a public comment period. A final decision as to whether it actually becomes a Superfund listed site may take up to a year.

### Stance remains firm

"We continue to believe that naming the site as a Superfund site is not in the best interest of negotiations, or ultimately in finding an acceptable resolution," Jane Magee, GE's manager of Pittsfield Environmental Programs, said Thursday. "But we do distinguish between nomination and final listing. And we are committed to try and find a solution."

Environmental officials welcomed GE's stance, but steadfastly refused to tip their hand about whether they will move forward on their plan to nominate the heavily polluted GE campus, the river from Pittsfield to Great Barrington, and a growing number of off-site disposal areas to the Superfund list.

However, during a meeting at The Eagle last week, the region's top regulators said they were also looking past the Aug.

SUPERFUND, continued on A6



John DeVillars

Craig F. Walker



David Struhs

Craig F. Walker

MORE

continued

nomination deadline toward a hoped-for negotiated settlement with the company over the full range of PCB-contamination issues.

"For better or worse, we've wrapped ourselves around this axle where Aug. 15 is the focal point," said David Struhs, commissioner of the state Department of Environmental Protection, who urged a change of focus.

"A proposed listing buys time and makes clear what the ultimate outcome is if there is no negotiated agreement," he said.

John DeVillars, the head of the Environmental Protection Agency's Region 1, said regulators are now looking at Feb. 1 as a "working date" for a settlement.

DeVillars said the agencies have three main objectives: an acceptable environmental restoration, "fair and generous" payments for natural resource damages, and a fast-tracked economic redevelopment strategy.

Superfund law might be more effective than the existing program, the Resource Conservation and Recovery Act, in obtaining those objectives, he said.

But a negotiated settlement might be faster still, especially since GE has vowed to fight the final listing in court.

Environmentalists have complained that the negotiations have been shrouded in secrecy and that GE is being let off the hook for pollution it admits it caused.

Regulators dispute this.

"This is not a back-room deal the government agencies are trying to cut with GE," Struhs said. "But to get a fresh start, it's important to be able to talk privately."

Any final solution will be open to full public scrutiny and comment, he said.

Others, like the City Council members who met with DeVil-

lars, Struhs and their staffs on Tuesday, say Superfund would place an unnecessary stigma on the community, driving away potential investors. They urged that the EPA hold off on nomination as a demonstration of good faith.

#### It's not the case

DeVillars said the idea that Superfund will bring nothing but delay and stigma is simply incorrect.

In New England last year, dozens of months were shaved off redevelopment schedules at seven Superfund sites, he said, saving tens of thousands of dollars in cleanup costs.

"Superfund can be used to advance economic redevelopment goals, not retard them," DeVillars said.

Regulators say that if negotiations fail, Superfund, technically known as the Comprehensive Environmental Response and Compensation Liabilities Act, may be a better tool to drive the extensive and complicated cleanup here than is the current program, RCRA.

"This is a huge site," DeVillars said. "If these negotiations don't work, it's only through Superfund that we can order the company to undertake cleanup of residential properties, Allendale School and the river," he said. "Only under Superfund can we move forward and send them the bill."

Under RCRA, the company conducts investigations and suggests cleanup strategies, subject to the review of the EPA and the state Department of Environmental Protection. GE can also sue to block disputed cleanup orders.

Under Superfund, GE has fewer options to challenge regulator decisions. And it might also be forced to pay compensation for natural resource damages.

#### Why Superfund?

GE says it will fight Superfund because it has done everything asked of it and has never missed a deadline under RCRA. The company has spent more than \$100 million since the 1960s to locate and contain the spread of the highly stable chemical, which was used as an insulating agent in a small fraction of the transformers built in Pittsfield from the 1930s to mid-1970s.

PCBs, or polychlorinated biphenyls, are suspected to cause cancer in humans as well as a wide range of environmental problems.

In June, federal and state regulators began negotiating with the company over a pilot brownfields industrial redevelopment project involving 15 acres of the GE site.

The talks have now expanded to include the industrial site, the river and off-site areas in the hope that a negotiated settlement beneficial to both sides can be reached.

Magee said that while the company feels nomination to the National Priority List adds nothing "fruitful" to the ongoing negotiations, such a move would not be a deal-breaker.

Late last month, Attorney General Scott Harshbarger urged DeVillars to list the site in order to "turn up the heat" on GE. A Harshbarger aide noted that in general, deadlines often encourage the kind of focus that aids in complicated negotiations.

The talks are due to the ceaseless efforts of state Rep. Peter J. Larkin, D-Pittsfield, who pushed the brownfields issue to the forefront of the Legislature's environmental agenda.

"It's a golden opportunity for Pittsfield to expedite a cleanup using GE's money," he said.

Larkin said he's concerned about the seeming determination on the part of the regulators to invoke Superfund, even as he sees potential benefits to the program if negotiations fail.

"All we ask for is open negotiations directed toward economic renewal as well as natural resource reclamation," he said.

He asked that regulators set an "aggressive" negotiating schedule, conceding that the specter of Superfund might in the end prove useful.

"In my mind, deadlines drive decisions," he said. "I'm not naive to this. But let's get it done. Let's get on with it. We need it today."

But DeVillars and Struhs counseled patience and cautioned against raising public expectations too high.

"Keep in mind these things don't get solved overnight," DeVillars said. "This is pretty dramatic action here. We have very ambitious goals."

Struhs concurred. "There is in the end a chance this won't work," he said. "Ambitious is a hopeful word, but it puts this process in context: it won't be easy. It might hurt the process if we were to raise expectations too early on. Our success depends on a deliberate, incremental approach."



## Lakewood cleanup begins



Residents came out yesterday with protest signs as GE began its cleanup plan on Longfellow Avenue in the Lakewood section of Pittsfield. In the foreground are Kimberly Wells and her mother, Brenda.

## But some residents refuse to budge, pending more PCB details from GE

By Theo Stein  
Berkshire Eagle Staff

PITTSFIELD — It was supposed to be a home run for GE and environmental regulators: an ambitious cleanup plan that would see more than 9,000 tons of PCB-contaminated soil removed from 18 Lakewood properties this fall.

But yesterday, pickets greeted the kickoff of work at 15 Longfellow Ave., where GE contractors prepared to remove 1,875 tons of contaminated soil.

GE also intends to dig up 450 tons from 20 Edison Ave., which is adjacent to the Longfellow lot. And the company is scrambling to line up contractors to remediate two lots near a highly contaminated 47-49 Longview Terrace property.

### Hickey likes results

For City Councilor Thomas Hickey, that is a major victory.

"Today I saw something I thought I'd never see in my life-

time: GE taking responsibility for their actions," said Hickey, whose Ward 3 includes the Lakewood neighborhood.

Hickey himself was forced to relocate his family as a result of PCB contamination in the late 1970s.

"I just thought they'd fight it and fight it and fight it and run it through the legal system and never take any action, he added. "They set a precedent today that they can never, ever walk away from."

So far, however, GE has only received permission to do four lots, as residents' deeply-held suspicions about the company's motives — coupled with their desire for more information about the cleanup plans — have them opting to wait until spring.

This has frustrated both state and company officials who have spent long hours devising and refining remediation plans on the assumption that affected homeowners would jump at the chance



J. Lyn Cutler  
DEP section chief

for a quick cleanup.

Unfortunately, the homeowners may now find themselves waiting longer than they'd like, because GE is set to begin testing a new batch of 35 homes, some of which the company is fairly confident are so-called "core" sites that received fill directly from the now-shuttered transformer plant.

With the exception of 15 Longfellow Ave., all of the homes scheduled for a cleanup this fall were neighbors of core sites and had less fill contaminated with the chemical that the Environmental Protection Agency calls a probable carcinogen.

GE has submitted plans to remove about 9,500 tons of soil from the 17 abutters, but intends to dig about 20,000 tons from the five "core" sites.

Regulators say that technical considerations being equal, the more contaminated properties will

LAKEWOOD, continued on A4

## ■ Lakewood from A1

get the first look next spring.

Several of the properties scheduled for cleanup this fall have average PCB concentrations that barely meet the state's conservative 2 parts per million threshold that forces a GE cleanup.

"A large number of these properties don't exceed the standard," said J. Lyn Cutler, a section chief for the Department of Environmental Protection's Bureau of Solid Waste.

In essence, GE has volunteered to clean up properties they might not have had to under state and federal regulation.

There was, however, no question about 15 Longfellow Ave., which GE purchased after testing revealed the extent of contamination. Company documents show that the former owner, Oliver Barzottini, a GE night foreman whom friends called "Bubbles," agreed to accept "clean" fill from Power Transformer in May 1948, according to a contract drawn up by GE lawyers.

"Naturally, he didn't know it was contaminated," said Thelma Barzottini, who married one of Barzottini's nephews. "I think this is such a shame."

### Protest in action

Yesterday, a worker cut the limbs off a 40-year-old sugar maple in the front yard as neighbors and protesters holding anti-GE placards mustered across the street.

GE has no plans to demolish the structure, but hasn't decided whether to place it back on the market once the property is cleaned up.

All four properties immediately abutting the Barzottini lot were scheduled for remediation; none of the abutting neighbors have agreed to let GE move ahead.

GE has said that the company was willing to remediate the lots this fall, but residents chose to file a class-action lawsuit against GE instead.

But three of those neighbors said it's a lack of information on

their own properties that's made them hesitate.

Charles Cianfarini, Thomas Barnaby and Rena Rose said that GE submitted cleanup plans to them, and then came back to do more testing. They said they want to know the results of those tests before they sign off on any cleanup.

"We don't think we have enough information to make an informed decision," said Barnaby, of 270 Newell St. He said he is concerned about his lot becoming recontaminated if the nearby Housatonic River floods.

### Residents have questions

Rose said GE's plans called for the removal of the top foot of soil on her property at 25 Longfellow Ave. But then the company came back and took soil borings, she said. "If they only have to go to one foot, then why'd they come back and take borings?" she asked. "I'd like to know what they've found."

Cianfarini, of 10 Edison Ave., said he's also waiting for test results.

"Without that information, without the test results, we don't feel comfortable going forward," he said. "If we had a complete remediation plan — and as long as we didn't lose any of our rights to sue — we wouldn't have any problem."

The three neighbors are all part of a class-action lawsuit filed against the company in U.S. District Court by Amherst attorney Cristobal Bonifaz on Monday. Bonifaz wants a judge in Springfield to sign off on the Pittsfield cleanups so he can be sure the rest of the lawsuit can go forward.

GE has called Bonifaz's concerns "baseless" and has explicitly stated that the residents who agree to a cleanup would lose none of their rights to sue.

Tim Gray of the Housatonic River Initiative organized the protest. He said homeowners — some of whom learned about their problem only three months ago — have been overwhelmed by a whirlwind of

technical issues and complicated proposals.

"A lot of people are just not certain about what's going on," he said.

A frustrated Cutler allowed that there may not have been sufficient communication among all parties. She urged residents who have specific concerns to call the Springfield DEP office or schedule an appointment during the DEP's local office hours on Thursdays.

She also said that GE and regulators have resolved a brief impasse over the testing of 35 more residential properties that they believe received GE material.

GE spokesman David Warshaw said yesterday that the company submitted sampling plans on four of the properties on that list, including Paul Wright's 577 Elm St. home, where GE staffers identified debris from transformer operations in the soil of his back yard nine weeks ago.

Warshaw added that GE is moving quickly to complete detailed interviews with the owners of another 16 high-priority sites where there is evidence of company-generated fill. And, he said, the company and the agency are working to further characterize the remaining sites on the list.

"Our interest is in moving this program along as expeditiously as possible," Warshaw said.

And for that, the company won plaudits from state Rep. Peter Larkin, D-Pittsfield, who said the project — and the intensity with which GE and regulators have attacked it — is proof that the two sides can work quickly and cooperatively to protect public health and safety.

State Sen. Andrea Nuciforo Jr., D-Pittsfield, was more restrained. "It is, at most, a mixed blessing," he said. "I'm just happy that they are beginning the cleanup. I'm glad they're starting here, but there's much more to be done. I'm also frankly happy there's a loyal opposition."

FEB 1 1998

NEW ENGLAND NEWSCLIP AGENCY, INC

536

CG

# EPA weighs Superfund decision

By Theo Stein

Berkshire Eagle Staff

PITTSFIELD — It's decision time for John DeVillars, the Environmental Protection Agency's New England regional director.

Six months ago, DeVillars set a Feb. 1 deadline for GE and officials from 10 state and federal agencies including the EPA to come to an agreement on a global cleanup solution for the widespread hazardous waste contamination on the company's mothballed 250-acre transformer plant, surrounding businesses, and in the Housatonic River and Silver Lake.

On Aug. 4, DeVillars nominated the Pittsfield site for inclusion on the Superfund National Priorities List, but pledged to pull back the nomination if GE agreed to a fuller, faster cleanup than would be available under Superfund.

Without such an agreement, DeVillars said he would move for a final Superfund designation, a development GE has vowed to fight in court.

At the time, DeVillars held out the possibility of an extension past the Feb. 1 line in the sand if the two sides were engaged in "substantial and meaningful" negotiations and if a settlement were imminent.

Indeed, the formal comment period for the Superfund nomination doesn't end until March 1.

On Aug. 4, DeVillars suggested he would be flexible.

"Just because we don't have a signed, binding consent agreement doesn't mean we're going to say, 'Sorry, you lose. Here comes Superfund,'" he said. "But if that deadline rolls around and they're not moving heaven and earth to get to it, then we

SUPERFUND, continued on A4

# ■ Superfund

will say, 'Sorry, you had your last chance.'

Whether DeVillars' test has been met is known only to EPA staff, and they're bound by a confidentiality agreement not to talk about it.

The EPA's Matt Hoagland, who heads up the RCRA Corrective Action Section, said DeVillars should make his decision tomorrow or possibly Tuesday.

While he was barred from discussing details, he did say that the two sides were talking about "real stuff" and that the looming deadline had served to focus the parties' attention on the issues.

"We've gone beyond hashing out principles," he said. "We've had some pretty in-depth discussions."

GE spokesman David Warsaw declined to comment at all.

Despite the confidentiality agreement, several rumors about what GE has or hasn't offered in the way of economic redevelopment and river cleanup have circulated around town recently. But none of the parties involved in the talks would confirm them.

The plant, the river and the river's former oxbows, now filled with various kinds of contaminants, are already regulated under the Resource Conservation and Recovery Act, the Superfund program's weaker, sibling cleanup law.

But there are an expanding number of other sites, such as Allendale School, that can't be

regulated under RCRA, and the EPA has said that that is one reason to shift the site from RCRA to Superfund. In the last year, more than 50 private homes have tested positive for the long-lived chemical the EPA calls a "probable" cancer-causing agent. At least 25 businesses have enough PCBs in the soil to warrant a cleanup.

Supporters of Superfund say that although GE agreed to various consent orders to clean up the pollution starting in 1981, little actual cleanup has taken place. GE argues it has done everything it has been required to do and spent more than \$110 million on the site on a number of projects, including a pump-and-treat system that has reduced what was a subterranean 22-acre lake of contaminated oil to less than 9 acres today.

This year, the company complied with an order to remove a highly contaminated hot spot from the river off Building 68, digging more than 9,000 tons of mud and soil. In 1996, the company performed another removal project on the river's banks near Deming Street.

Last year GE also submitted plans to clean up 22 residences with PCBs in their soil. A dispute with a lawyer representing some of the homeowners resulted in only two properties being remediated. More cleanups are planned this year.

But several plumes of contaminants still lurk underground, and the company's most vociferous enemies say

that regulators would find buried drum fields and a host of other extremely serious problems if they looked in the right spots.

And the river still holds its heavy burden of polluted sediments. How the pollution is affecting wildlife will be studied this year. GE wants to leave the sediments in place and let nature take its course.

But by some estimates, it may take 1,000 years for the river to clean itself up.

The chief complaint about Superfund as voiced by local leaders is that it would slow the cleanup and further tarnish Pittsfield's already soiled reputation. They point to a government accounting report that puts the average length of a remediation project under the program at almost a decade.

But the EPA has said that the lengthy investigations done under RCRA will stand for the Superfund process. And the site, one of the largest hazardous waste sites in the nation, is already on the map.

Superfund supporters also want regulators to be able to spend government money on cleanups if GE balks. The EPA could then sue GE for triple the cost.

Company critics have said that they doubt GE will agree to anything because of the implications for the cleanup of the Hudson River, a problem that is an order of magnitude larger than Pittsfield's.

DeVillars has banked heavily on the mediation process. It now remains for him to decide whether it has paid off.

# New area of dense oil found near Building 68

By Theo Stein

Berkshire Eagle Staff

PITTSFIELD — A recent report by a General Electric contractor shows that a layer of heavy free oil under a Newell Street parking lot is not migrating northward across the Housatonic River, as some environmentalists have feared.

The report, authored by the environmental engineering firm of Blasland, Bouck & Lee, documents the discovery of a new zone of dense oil that has sunk below the water table near Building 68, the site of a major cleanup project late last year.

A one-foot thick layer of oil was recovered from one of six wells sunk along the northern bank of the river and the chemical analysis of the oil showed 624,000 parts per million of PCBs and 190,000 ppm of chlorobenzenes, another chemical associated with PCBs.

GE spokesman David Warshaw said chlorobenzenes were used to dilute PCBs as they were mixed into various formulas for different transformers.

Building 68 was one location where this mixing occurred. The well where the oil was recovered is the fifth of six wells extending in a line several hundred feet west of the building.

## Not a connection

But Warshaw said testing had not yet linked the discovery of what the company believes is a "narrow, thin band of oil" to the operations at Building 68.

"We are not speculating at this point on the source of the PCBs in this well," he said. "That's why we're doing the investigation."

The Environmental Protection Agency's site manager, Dean Tagliaferro, said that he was waiting for additional test results before attempting to describe the size of the oil plume.

"It's tough to extrapolate from one hit," he said, adding, "There's no known source we can think of."

At a Feb. 4 public meeting hosted by the EPA and the Department of Environmental Protection, members of the Housatonic River Initiative questioned whether the two areas of oil had an underground link.

But Warshaw and Tagliaferro said chemical fingerprinting had established that the oil in

(2-25-98)  
the Building 68 well was different from the oil found across the river beneath the Newell Street parking lot.

For example, the Newell Street plume contains up to 388,000 ppm of one type of PCB mixture known as Aroclor 1254 and none of another mixture known as Aroclor 1260. It also contains solvents like toluene and trichloroethene.

## Oil recovered

The oil recovered from the well near Building 68 had no Aroclor 1254, but 10,700 ppm Aroclor 1242 and 613,000 ppm Aroclor 1260. The sample also contained chlorobenzenes but no toluene or trichloroethene.

The report also showed that the oil on the Building 68 side of the river was found at an elevation 15 feet higher than the oil on the Newell Street side and that there was no easy pathway from one deposit to the other.

But Bryan Olson, the EPA's section chief for Pittsfield programs, said the new discovery at Building 68 was still a cause for concern.

"Any time we find free product, we know it could be a potential source to groundwater," he said. "That's why we want to investigate its extent and see what could be done to remove it."

In December, GE proposed to install three or four wells to define the oil zone. Tagliaferro said yesterday the agency hopes to approve the plan this week.

While its size has not yet been conclusively determined, the

new plume appears to be much smaller than other pockets of free oil nearby.

One plume was formed by PCB-contaminated mineral oil that leaked from storage tanks near the Building 12 complex north of the railroad tracks.

By the mid-1980s, the subsurface plume had created a 19-acre lake of light oil riding on top of the groundwater, with the area of thickest oil covering 11 acres.

Since then the plume has been reduced to a total area of about 11 acres, with the thickest part no more than one acre in extent, Warshaw said.

Last year, six recovery systems treated 58 million gallons of groundwater and removed 50,000 gallons of oil from the area, which is south of East Street and west of Newell Street.

## Seventh system

A seventh pump-and-treat system is due to come on line this year, Warshaw said.

Recovery systems drew off 50 gallons from another, smaller plume located along East Street east of Newell Street. That plume is now less than one-tenth of an acre in size, Warshaw said.

A one-acre plume of oil under a parking lot on Lyman Street recently yielded 1,000 gallons of oil.

Since the 1970s, more than 750,000 gallons of oil have been drawn from two plumes in the East Street area, trucked to Texas and burned.

# GE Plant, River Face Superfund Status

## EPA to Seek Designation For Pollution of Site As Talks Break Down

By WILLIAM M. CARLEY  
Staff Reporter of THE WALL STREET JOURNAL

After a breakdown in negotiations with General Electric Co., the U.S. Environmental Protection Agency said it would seek Superfund status for the pollution of GE's sprawling plant in Pittsfield, Mass., and the adjacent Housatonic River.

GE Chairman John F. Welch, who personally intervened in the negotiations, has bitterly fought Superfund status, which would make the company liable for potentially huge natural-resource damages. GE even suggested it might pull the headquarters of GE Plastics and its 700 workers out of Pittsfield if the plant is declared a Superfund site.

Some environmental regulators believe GE is fighting so hard in Pittsfield because it might set a precedent for the Hudson River in New York, where GE also is battling regulators over the company's pollution.

GE used PCBs to make electric transformers at its Pittsfield plant when use of the chemicals was legal. GE's PCBs polluted both the plant and the Housatonic River, which runs south through Connecticut to Long Island Sound. In the 1940s and 1950s, GE also donated landfill soaked with PCB liquids for residential lots, which caused an uproar in Pittsfield when discovered last year. The battle over the residen-



John F. Welch

**GE SAYS IT ALREADY has taken numerous steps to contain PCBs, including building a system to pump out PCB oil when concentrations were discovered underground seeping toward the Housatonic River.**

tial lots, which GE ultimately agreed to remedy, was chronicled in a page one story in The Wall Street Journal last year.

PCBs, or polychlorinated biphenyls, have been declared probable cancer-causing agents by the government. GE has argued that the risk of PCBs has been greatly exaggerated.

### Enforcement Orders

In addition to seeking Superfund status, the EPA said it would issue enforcement orders against GE under other federal laws. The orders would force the company to immediately clean up two miles of the Housatonic downstream, the most heavily polluted stretch of the river. The EPA also proposed continued negotiations over GE's plant site, the issue on which negotiators came closest to reaching agreement, pending Superfund listing. John DeVillars, EPA's administrator for New England, said in a statement that these and other moves would require GE to spend "several hundred million dollars" in Pittsfield and the surrounding area.

GE already has taken numerous steps

to contain PCBs, including building an elaborate system to pump out PCB oil when concentrations were discovered underground seeping toward the Housatonic River. GE, under Massachusetts state order, also rebuilt a dam downstream to contain PCBs already in the river. These and other steps, the company said, have cost more than \$120 million.

In New York Stock Exchange composite trading, GE fell 56.25 cents to \$86.8125.

Last summer, EPA regulators, frustrated after years of legal wrangling with GE and piecemeal cleanups that resulted, called for negotiations on a comprehensive remedy. At the time, Mr. DeVillars said that "if people dither and dally," he would invoke Superfund status for the plant and river. GE's vice president for environmental programs, Stephen Ramsey, said the time for regulators to sue for natural-resource damage awards had expired, and regulators were seeking only to get by negotiations what they couldn't obtain by a lawsuit.

As the negotiations in Boston wore on, Mr. Welch began to intervene. Pittsfield's newly elected mayor, Gerald Doyle, said in an interview that he met with Mr. Welch at GE's Fairfield, Conn., corporate headquarters.

Mr. Welch "didn't threaten to move" GE Plastics out of Pittsfield, Mr. Doyle said, "but he did say Superfund status would make it very hard for GE to attract workers" needed by the company for GE Plastics. In March, Mr. Doyle and several Pittsfield business leaders announced their opposition to Superfund.

Mr. Welch also traveled to Boston, where he met privately with EPA administrator Mr. DeVillars. According to one person familiar with the meeting, Mr. Welch reiterated his view that PCBs weren't dangerous and hinted that if Superfund were invoked, GE might have to move out of Pittsfield.

- indie -

4/7/98

## GE Plant, River Face Superfund Ranking As Talks Break Down

*Continued From Page A2*

GE resisted.

EPA regulators also sought \$50 million from GE to establish parks along the Housatonic River and other measures to compensate for the pollution, a figure EPA later cut to \$35 million and finally to \$25 million. But GE, according to the person familiar with negotiations, offered "only a few million."

A GE spokesman declined to comment on some of the specifics of the negotiations, due to a confidentiality agreement. However, he did say that the company's offer went "far beyond" what EPA could demand under the law. The spokesman said EPA's demand for two miles of dredging would be "unprecedented, ecologically devastating and would violate EPA's own policies and regulations." He added that EPA, in its announcement, was "misrepresenting the facts" when it says PCBs cause cancer, and the agency "is trying to frighten Pittsfield residents into supporting Superfund."

Whether GE pulls its plastics operation and 700 jobs out of Pittsfield is uncertain. Last week, in a memo to employees, GE Plastics chief Gary Rogers stated: "The question on everyone's mind is if the area is declared a Superfund site, will GE Plastics remain located in Pittsfield. No decision on that issue has been made, but we continue to be apprehensive about the effect that Pittsfield being named a Superfund site" will have on recruiting employees.

GE, meanwhile, is vowing to go to court to stop the EPA's Superfund actions and other moves. The GE spokesman said that yesterday's announcement by the EPA "sets the stage for years of litigation." EPA official Bryan Olsen said that under Superfund, the agency could move fast by spending its own money on remedies and then seek triple the cost from GE.

# The case for a cleanup

## EPA bringing action plan to residents

By Greg Sukiennik  
Berkshire Eagle Staff

PITTSFIELD — The Environmental Protection Agency, having decided it will clean up the General Electric site and the Housatonic River itself if the company won't, is taking its case to the people.

A public meeting has been scheduled for tonight at 7 in the Pittsfield High School auditorium at which EPA will explain its plans for a Superfund PCB cleanup and answer questions. Yesterday, EPA took its case to the streets of Lakewood, distributing leaflets explaining the agency's position and plans in a door-to-door tour of the neighborhood. By the end of yesterday, agency staffers had knocked on more than 1,000 doors.

The agency also will mail 27,000 leaflets explaining its position to every

---

*'The process is now a fully public process, as it should be,' said state Sen. Andrea Nuciforo.*

---

residence in Pittsfield. It is also holding extended office hours at its City Hall office until Friday, from 9 a.m. to 4 p.m. The phone number there is 499-9325.

On Monday, EPA announced plans to dredge the first two miles of the Housatonic River of PCB-contaminated sediments, and to give GE two more weeks to come up with a cleanup and redevelopment proposal for the former 250-acre transformer campus.

At the same time, EPA is pursuing the nomination of the river, the GE transformer plant and scattered sites in Pittsfield to the Superfund National Priority List. The company has pledged to fight a Superfund designation and cleanup orders in court. (See related story, Page B1.)

The public meeting, EPA spokeswoman Alice Kaufman said, will give citizens an opportunity to hear more about EPA's plans for the river and the site, and ask questions about the situation. EPA officials including Region 1 administrator John P. DeVillars will be present.

"We are hoping to hear from a larger citizen audience and give people the chance to ask us questions in an informal session," Kaufman said. "We're not going to be there to bash GE. We're going to look at how to move ahead."

"We want to make sure people get a chance to ask questions, respond to our proposal and tell us what they think," she added. "We need to hear from them."

"The process is now a fully public process, as it should be," said state Sen. Andrea F. Nuciforo Jr. "The confidentiali-

CLEANUP continued on A4



Ben Garver / Berkshire Eagle Staff

Johanna Hunter of the Environmental Protection Agency greets a resident of Ontario Street in Pittsfield while handing out leaflets yesterday.

## Residents support cleanup, say GE should pay upfront

By Greg Sukiennik  
Berkshire Eagle Staff

PITTSFIELD — Residents questioned yesterday support a cleanup of the General Electric transformer site and the Housatonic River. But they would prefer that GE pick up the PCBs instead of the government stepping in and paying the tab with federal tax dollars.

An unscientific poll conducted in the

Berkshire Crossing shopping center parking lot yesterday afternoon revealed that general sentiment, although wide differences over what could and should be done remain.

But everyone questioned supported cleanup of the PCBs that GE used in the manufacture of transformers until the 1970s. The chemical is listed by the federal government as a probable cause of cancer, and is

POLL, continued on A4



ty requirement made it very difficult for other legislators to be involved in a meaningful way. The rules have changed now."

Monday, DeVillars said a citizens advisory board will be formed, to be governed by a 15-member board of directors. Membership will be weighted toward Pittsfield but will include Southern Berkshire and Connecticut representation as well. The board is intended to be as inclusive as possible, with environmental activists, business leaders, elected officials and other concerned citizens on board.

The EPA started using a citizen advisory board as part of its Superfund cleanup of the Massachusetts Military Reservation on Cape Cod. The aim, Kaufman said, is to involve citizens in the decision-making process and keep the community informed of plans and developments.

Kaufman said the committee could, depending on participation, include the formation of subcommittees to work on specific issues, such as the river and redevelopment of the transformer site.

"It's something that's still evolving," Kaufman said yesterday. "We want to see what role the community wants to play. We don't want to come to town with a plan, lay it on the table and say 'This is it.' We know it takes strong citizen input to do this."

The state Department of Environmental Protection yesterday spoke out in favor of making the cleanup process as public as possible.

"To the degree that a public process like the one used at

[Mass. Military Reservation] can be replicated in Western Mass., there is grounds for the sense that the public can be included in a meaningful way," said spokesman John Rodman. "In terms of engaging the public, frankly this makes the commonwealth feel a whole lot better about the process."

Rodman also said that the state is pleased that the EPA's current cleanup proposal is being taken to the public.

"The one thing that has given us discomfort throughout is the confidentiality agreement," Rodman said, referring to the secrecy that surrounded the seven months of negotiations toward a settlement that could have forestalled a Superfund designation. "It was necessary in one sense because the negotiations involved enforcement-sensitive information. [EPA's current plan] has a strong commitment to a full-boned public participation process. From the standpoint of the Cellucci administration, the participation of the public is very important."

## Symposium at library

Meanwhile, the Housatonic River Initiative, an activist group that has pushed hard for a cleanup of the river, has organized an educational symposium for Saturday, April 18, at noon at the Berkshire Athenaeum. The symposium, entitled "Our Stolen Future: How Safe is Safe?" will feature talks from PCB researchers and experts in the field of risk assessment and community involvement.

*Eagle reporter Theo Stein contributed to this story.*

# ■ Poll from A1

suspected of causing other health problems.

Participants were asked for their reaction to the news that the Environmental Protection Agency plans to impose an emergency removal order for the first two miles of the Housatonic River beyond the GE plant, and pursue a Superfund designation for the river and the plant.

"I think [GE] should do it. I think they need to clean up their mess," said one middle-aged woman.

"Yes, definitely," added a teenage boy, "because it shouldn't be polluted, and for health reasons. [GE] caused it, so they ought to clean it up."

One middle-age man admitted he didn't know enough about the situation to make an informed statement about it. "I don't know if it's as bad as they say it is," he said.

"I'd like the environment cleaned up," said another man. "But GE should not be forced — I think GE should do it on their own."

"I don't want Berkshire County

added, alluding to the fear many have about a Superfund label. Some say the Superfund stigma would hurt the community, while others say it is the pollution, not the name, which hurts the city most.

One city couple, Francis and Diane Manns, talked about the pressure which the hinted-at pull-out of GE Plastics has exerted on how residents feel about Superfund. GE executives have questioned the viability of the city as Plastics headquarters if a Superfund designation comes to pass. They also talked about how other large employers — notably General Dynamics Defense Systems and K-B Toy Stores Inc. — have made similar statements.

"I think that stinks," Diane Manns said. "But what are our options?"

"There's no good way out of it," Francis Manns added.

"I don't want GE to leave, but I think they're going to go, anyway," Diane Manns added. "Jack Welch has a lot of pull."

One woman said she understood GE's position with regard to limiting liability costs, here and on the Hudson River, as well as the city's position. "It's a shame they couldn't come to a better agreement," she said.

# LA A plan to force cleanup greeted with strong support

PHOTO BY



By Theo Stein  
Berkshire Eagle Staff

PITTSFIELD — More than 200 residents turned out to Pittsfield High School last night to hear how the Environmental Protection Agency's regional administrator was turning up the heat on GE.

"The past seven months of intensive effort were just the warmup for what we're going to do here," said EPA regional director John DeVillars. He was treated to vigorous applause that was repeated several times during the meeting, especially after several speakers thanked him for pushing the issue so hard.

The collapse of the talks last week prompted DeVillars to unveil a four-point action plan that includes emergency cleanup orders, the formation of a citizens advisory panel, a final offer to settle with GE on the cleanup of its Morningside plant and a continuation of the Superfund listing process.

## 'Pockets plenty deep enough'

Even though GE has declared the issue "moot," DeVillars and city leaders intend to ask the company to revisit their proposal for a brownfields redevelopment of its mothballed transformer manufacturing plant.

"They shouldn't hold the economic future of this community hostage while we resolve our differences on the river," DeVillars said.

"GE's pockets are plenty deep enough to get this site cleaned and back into reuse," he added later.

DeVillars answered several questions that centered on the massive emergency dredging order his staff will issue by May 15.

New PCB sampling of the Housatonic River conducted by the EPA has shown two things: high levels of PCB contamination in residential back yards and the continuing transport of contaminated sediments by the river's actions.

Some soil samples taken from back yards showed concentrations of PCBs in the thousands of parts per million.

The state safety standard for surface soils within 500

EPA, continued on A2

## Lawsuits begin flying

By Theo Stein  
Berkshire Eagle Staff

PITTSFIELD — In lawsuits filed Tuesday in Boston, GE has accused the federal Environmental Protection Agency and the state Department of Environmental Protection of withholding documents related to the investigation and cleanup of GE's PCB wastes in Berkshire County.

The suits were filed under the Freedom of Information Act against the EPA in U.S. District Court Boston and against the DEP in Suffolk Superior Court just one day after GE promised to wage legal war against the EPA and regional administrator John DeVillars for his decision to move the Superfund listing process forward.

GE attorneys are seeking paperwork that they claim

LAWSUITS, continued on A2

Jared M. Leeds / Berkshire Eagle Staff

John DeVillars, regional administrator of the Environmental Protection Agency, tells residents at a meeting at Pittsfield High School last night, 'We believe we have strong legal case, and a very strong public health and scientific case.'

BERKSHIRE EAGLE

PITTSFIELD, MA  
DAILY 31,097

THURSDAY

APR 9 1998

NEW ENGLAND NEWSCLIP AGENCY, INC.

t of a dwelling is 2 ppm. The EPA says that because of these levels, kids playing along the river from Elm Street to West Avenue face a risk of neurological disease and behavioral disorders that is 500 times greater than what the EPA considers safe.

The agency is planning a three-year project that would begin with source control work at the GE plant this November, followed by two years of dredging and flood-plain soil removal starting in the spring of 1999.

GE has rejected the EPA's health risk assessment and has indicated it may refuse to comply with the emergency dredging order.

"If GE says they won't comply with the order, which I think would be an extremely irresponsible action, we're prepared to move forward with dollars from the Superfund," said DeVillars. "We believe we have a strong legal case, and a very strong public health and scientific case. We hope they do what's right for the city."

The EPA is planning to spend \$5 million of its own money this year to develop engineering plans for the project. If GE refuses to do the work, DeVillars said he will get the estimated \$40 million to complete the job.

### Economic activity

"There's going to be a lot of economic activity," he added. "We want to fill as many of those jobs as possible with residents of Berkshire County."

Despite the talks' failure, DeVillars said talks weren't a total loss. Regulators narrowed the gap with GE on certain issues, particularly the cleanup of the plant itself. And regulators developed a much deeper understanding of Pittsfield and the difficult situation it's in.

The collapse of the talks also means that the public is now



Jared M. Leeds / Berkshire Eagle Staff

## Councilor at large James M. Boyle asks a question during last night's meeting at Pittsfield High School on the Environmental Protection Agency's PCB cleanup plan.

invited into what was a confidential process. DeVillars said the EPA will be forming a 15-member citizen advisory panel to inform and guide the EPA's decision making.

He applauded Mayor Gerald S. Doyle Jr. and City Council President Thomas E. Hickey Jr. for their aggressive negotiating tactics and for standing with the governmental team despite being presented with a nearly satisfactory deal from GE.

### Proud of Doyle, Hickey

Lakewood property owner Charles Cianfarini stood up to voice a sentiment that many critics of Doyle and Hickey now feel.

"I said some harsh things about Mayor Doyle and Tom Hickey," Cianfarini said. "I'm proud they stood with the EPA."

Several people, including two real estate agents and Ward 6 Councilor James Massery rose to express their continuing concern that a Superfund stigma will crush the city's economy.

Carol Rose added that she feared GE will delay the process for decades during which the stigma will linger.

The responses showed that Pittsfield is still riven by hard feelings.

"I would ask all the businessmen and Realtors who are so worried about the economy how they would feel if they lived in a contaminated neighborhood and soil of their yard had PCBs," said Nan Razzano of Ventura Avenue. "Would their bottom line be different if it were their children playing in contaminated soil?"

### 'It's the beginning'

"The real estate people should start being positive," responded Lakewood resident and business owner Vincent Curro. "Stop advertising it as a stigma. You're ruining the town."

"It's not the end of the world, it's the beginning," he added. "My grandchildren don't live here any longer because of the contamination. I put 37 years of my life into a building that's now worthless. You want to hide it and pretend it doesn't exist like we have for the last 20 years? Let's get together and..."

Barbara Cianfarini, citing a state law that prevents landlords from retaliating against tenants who turn them in for code violations, asked if there was a similar law that would prevent GE, which she accused of breaking the law, from pulling its Plastics headquarters out of the region.

DeVillars said there is no such law on the books, and stressed that EPA wants to look ahead to a cleanup, not behind to past disposal practices that were legal when they took place.

"It doesn't seem to me they should be penalized or denigrated for past practices," DeVillars said. "The issue is what we do about it now."

But following up that comment, Skip Barnes of Pittsfield said GE did know about the dangers of PCBs in the 1970s.

"They were very relaxed in their disposal practices. I know, because I'm one of the truckers who cracked the valve and put PCBs down storm drains," said Barnes, who later clarified that he was a fork lift operator, not a truck driver. "Believe me, a lot of people are scared of death of Jack Welch and GE. But I'm not."

Barnes said when he was working at GE, it was commonplace to dispose of 20 or more 55-gallon drums of PCB-tainted Pyranol a week.

Eagle reporter Greg Sukiennik provided material for this report.

demonstrates that the EPA is trying to designate the GE plant, the Housatonic River and off-site PCB landfill areas as a Superfund site solely to press tens of millions of dollars in claims for natural resource damages.

An EPA attorney said GE had no basis for the complaint.

"GE has identified documents they believe we should have and are undeterred by the fact they don't exist," said Douglas Luckerman, an EPA regional counsel.

"The complaint is just a smokescreen to try to direct attention from GE's responsibility to clean up the contamination of the river and the rest of Pittsfield."

Company lawyers accused the agencies of "unlawful attempts to deprive GE and the public of their rights" to understand whether there is a basis to support a Superfund designation for the company's 250-acre transformer plant, the Housatonic River and off-site PCB landfill areas.

They asked federal Judge William G. Young to either force the EPA to turn over its paperwork or extend the May 1 Superfund comment period deadline until the EPA does.

Young ordered the EPA to produce a list of documents by April 21 and then appear at a hearing the next day.

#### **Statute of limitations**

GE claims the EPA is hiding documents that show the agency is moving the Pittsfield cleanup from the Resource Conservation and Recovery Act cleanup permit to the more aggressive Superfund because the statute of limitations has run out on natural resource damages under RCRA.

At the settlement talks that recently ended in failure, the EPA and allied government agencies were reportedly ready to settle the natural resource damages claim for \$25 million.

GE has successfully used the statute of limitations defense to defeat other lawsuits filed by Pittsfielders aggrieved by the effects of the company's PCB contamination.

The EPA says the more powerful Superfund program is needed to ensure that Connecticut and South County towns are compensated for the long-term damage to the river by GE's wastes, and to cover the expanding number of sites that received PCB-tainted soil during a 30-year giveaway program. Superfund will also help speed

---

*'It's certainly ironic that they would be making these claims.'*

---

a cleanup that has lagged under RCRA.

The lawsuits come after more than a year of disclosures that GE failed to turn over company documents detailing the fill program. GE claims it never knew the documents existed and has fully complied with all federal and state reporting requirements.

#### **Thousands of pages**

Currently, regulators are digging through tens of thousands of pages of documents GE recently released in response to formal information requests filed last September. Not all of the documents are historic. In fact, EPA and DEP regulators said GE sent them boxes of their own documents that the company had on file after company lawyers were expressly told not to do so.

On the other hand, GE attorneys have refused to supply documents that might answer the most potentially damaging questions relating to the company's use of PCBs and fuller's earth, and the people involved with handling and transporting the fill material.

GE attorneys have said the requests were "unduly broad" and "burdensome."

Despite the fact that the agencies have extended the response deadline three times, they still haven't received what they consider a good-faith response from GE.

#### **'Privileged' documents**

"It's certainly ironic that they would be making these claims," said James Milkey, an assistant attorney general in charge of the Environmental Protection Division.

For example, in its lawsuits GE asked that the agencies be compelled to produce an indexed list of so-called "privileged" documents, which regulators say are enforcement-sensitive or otherwise not subject to public information laws.

But company lawyers have for months ignored regulators' requests for the same kind of list detailing documents GE claims are privileged.

# GE offers to remove PCBs in riverbed but no new talks have been scheduled

By Theo Stein  
and Greg Sukiennik  
Berkshire Eagle Staff

GE is volunteering to remove PCB-laden sediments in a half-mile stretch of the Housatonic River, in the wake of a meeting Tuesday in Washington, D.C., between John DeVillars, regional administrator of the Environmental Protection Agency, and Stephen D. Ramsey, GE's top environmental official.

In a letter to DeVillars yesterday, Ramsey said GE was willing to remove the first two feet of sediments in the riverbed from the GE plant downstream to the Lyman Street

bridge. That was the offer on the table when secret talks to avoid a Superfund designation collapsed on April 2.

Ramsey said this should satisfy the EPA's desire to address the highest levels of contamination in the two miles the EPA has targeted for dredging.

At the urging of Mayor Gerald S. Doyle, DeVillars met with Ramsey in Washington to discuss prospects for further negotiations on the company's PCB problems in Pittsfield.

However, Mindy Lubber, the EPA's deputy regional administrator, said yesterday the discussion was brief and failed to close the wide gulf between the

two sides on the issue of river dredging and compensation for natural resource damages. The company made no firm proposals, she said. Therefore, no formal talks have been scheduled.

## Resource damages

Ramsey reportedly offered to increase the company's payments for long-term damage to the environment to between \$15 million and \$20 million. But he asked for DeVillars' commitment to pull back from his plan to order the emergency removal of PCBs along a two-mile stretch of the Housatonic River.

GE spokesman Bruce Bunch declined to comment on the reports.

When the secret talks collapsed, GE's last offer was in the vicinity of \$12 million in investments and projects. But the company reportedly calculated that number based on several million dollars of work that the natural resource trustees said fell outside the scope of qualified projects.

Last month, Ramsey told The Eagle the EPA had promised GE it would get credit for the cleanup, capping and restoration of Silver Lake. The EPA

PCBS, continued on A5

## PCBs from AI

and the trustees, which include Connecticut, the federal Department of the Interior and South County communities, had asked for \$25 million in payments and projects.

The riverbed just below the GE footbridge has PCB concentrations as high as 1,290 parts per million, Ramsey said. Bank soils along that stretch average more than 300 ppm, he said.

Last year, GE removed about 0,000 tons of highly contaminated river sediments and bank soils next to the old PCB mixing station at Building 68, just upstream from the footbridge. The hot spot, with PCB concentrations exceeding 100,000 ppms, was the result of a 1968 tank explosion and other releases. GE reported that it had cleaned the spill up.

But the magnitude of the problem was not discovered until 1996, when the state Department of Environmental Protection acted on a retired GE engineer's tip and required the company to test the area.

GE's proposed half-mile removal would start at the Newell Street bridge, upstream of Building 68, and advances the cleanup less than 2,000 feet downstream from the completed project.

## Issue of access

The GE proposal was also preferable, Ramsey said, because GE had access to most of that half-mile stretch of river.

The EPA's two-mile plan, he warned, would be disruptive, requiring the removal of trees in people's back yards and the construction of work roads on both sides of the river.

In addition, DeVillars' push for an expedited removal project flies in the face of agency policy, Ramsey wrote. Since DeVillars announced the project, Ramsey has charged that the EPA is twisting sampling data to create the perception of a health threat in order to force GE into spending \$50 million on a dredging and removal project that might take years to achieve under the current permit or even Superfund. Ramsey has also said the EPA is required to consider all other options, including no action, and has failed to do so. He has said GE will refuse to do the work and force EPA to pay for it with government money.

DeVillars had gone to Washington Tuesday to participate in a high-level EPA meeting on developing a consistent strategy to cleanups that involve large volumes of contaminated sediments. The EPA said it was an internal meeting and declined to comment further.

But the Washington publication The Superfund Reporter said that DeVillars' April 6 assertion that elements of the emergency Housatonic dredging project would set a precedent for the Hudson River angered EPA Region 2 administrator Jeanne Fox, who this spring announced another delay in a study of Hudson River sediments. The decision to delay the

study until 2001 infuriated environmentalists, who accused the EPA of being "AWOL on the Hudson."

## Doyle works phone

Meanwhile, in Pittsfield, Doyle spent most of the afternoon yesterday on the phone, talking strategy with representatives from the EPA, the governor's administration and local elected officials. The mayor said he also spoke with EPA administrator Carol Browner about his concerns for the city's future. He declined to comment on the outcome of the Ramsey-DeVillars discussion.

"I'm still working as hard as I can to continue to reach some kind of agreement that's in the best interests of the city of Pittsfield and the rest of the community," the mayor said. "Again, that includes public health, economic development and natural resources.

Doyle characterized the conference call as an attempt to "see what the real issues are." No strategy decisions were made, said the mayor.

"What we're after is a unified front, whether that's a settlement or Superfund," he said. "My inclination is a settlement and closure."

# A chronology of the PCB negotiations

*City, federal and corporate officials played key roles in fashioning agreement*

## Background

**1929-1977:** General Electric uses polychlorinated biphenyls, as required by law, in the manufacture and retrofitting of certain kinds of transformers as an insulating agent and spark suppressor. Manufacturing practices allow millions of gallons of PCBs to spill or leak into the ground and the Housatonic River.

**1970:** Congress establishes the Environmental Protection Agency.

**1977:** EPA bans use of PCBs based on scientific evidence that the chemical may be a potential carcinogen.

**1981:** The Comprehensive Environmental Response, Compensation and Liability Act, known as the Superfund hazardous waste cleanup program, becomes law.

## Prelude to negotiations

**1997:** Critical events escalate pressure for cleanup on several fronts.

► GE suffers barrage of bad publicity as major residential sampling program reveals the soil of dozens of homes contaminated with PCBs culminating with the disclosure that a retired GE engineer warned the company about the problem as early as 1981. The documents identify the four core sites that were once used as landfills or scrap yards. GE denies that it hid the documents. By the fall, GE had agreed to clean up the homes under an expedited reg-

► EPA issues a massive information request asking for all company records about waste disposal practices. GE reviews millions of documents and concurrently issues a Freedom of Information Request on the EPA and DEP. The Attorney General's office impanels a grand jury to investigate the company in late fall. The investigation is apparently still pending.

► Larkin's call for reform of the state's hazardous waste laws is propelled to the top of the environmental agenda in Boston as other lawmakers see the wisdom of reusing industrial sites rather than plowing under green fields. Attorney General Scott Harshbarger, then-Gov. William Weld release less aggressive reform bills. The Legislature's Natural Resource committees then combine elements of all three into a consensus bill, which fails to pass by the end of the session.

## Negotiations begin

**Aug. 4, 1997:** EPA Regional Administrator John P. DeVillars nominates the GE/Housatonic River site for Superfund National Priority List designation but pledges to pull back the nomination if GE agrees to a settlement that provides for a "faster, faster" cleanup than under Superfund. He sets Feb. 1, 1998 as the deadline for a negotiated settlement.

► GE completes the cleanup of the Building 68 hot spot. Testing during the project shows the contamination is even worse than expected. Tests also reveal a small new PCB plume near the river's edge. GE ordered to install sheet piling to prevent the plume from contaminating the river.

**Feb. 1, 1998:** Deadline for PCB talks expires without GE having put an offer on the table. DeVillars says there's been enough progress to warrant continuing the talks. He sets a March 30 deadline and says it will be the last.

**March 14, 1998:** GE announces ambitious residential cleanup plan. Company contractors target 62 properties contaminated by PCB fill for work in 1998.

**March 21, 1998:** With 10 days left in the talks, Mayor Gerald S. Doyle Jr. announces his opposition to Superfund because the notoriety would precipitate an "economic disaster" for the city. His remarks kick off a nasty public debate over the so-called "Superfund stigma." Environmentalists say the stigma is the contamination. They blast the mayor for his stance. The mayor's own PCB committee abruptly quits in protest.

► In a related story, the mayor says GE chairman John F. Welch told him Pittsfield would no longer be a good home for GE Plastics world headquarters because of the Superfund

**March 30, 1998:** PCB talks deadline expires. EPA grants three-day extension.

**April 2, 1998:** The PCB talks collapse. EPA announces it will push for a final Superfund designation, hints it may order GE to dredge two miles of river immediately. GE says the moves set the stage for years of litigation.

**April 8, 1998:** Stephen C. Ramsey, GE's vice president of corporate environmental programs, writes a letter to DeVillars asserting that science has failed to prove a link between PCBs and cancer or birth defects.

**April 9, 1998:** GE's Ramsey says the company may go to court to insist PCBs are safe.

**April 22, 1998:** GE's CEO John F. Welch squares off with Sister Pat Daley at the company's stockholders meeting in Cincinnati during which he asserts that PCBs do not pose health risks. Daley compares the company position to the tobacco industry. "You owe it to God to be on the side of truth here," he shoots back. National media picks up the story.

**April 24, 1998:** Doyle urges revival of PCB talks. "The elephants are fighting and Pittsfield is paying the price," says Larkin. The cleanup of PCBs from Allendale School and Pittsfield High School are underway.

**May 6, 1998:** GE and the city reach preliminary agreement on a brownfields pact that would redevelop the site. Both sides sign agreement sheet May 28. City leaders use the agreement in hand to argue for another round of talks.

**May 15, 1998:** The state Department of Environmental Protection's director of environmental health assessment criticizes GE for its continuing public relations campaign denying the toxicity of PCBs and accuses the company of ignoring scientific data that runs counter to the company position. "Clearly, the scientific research base for PCBs ... presents a number of potentially serious health risks."

**May 19, 1998:** GE offers comprehensive settlement package which contains the offer to clean half a mile of the Housatonic River but no more. GE also offers \$10 million in cash and \$10 million in projects for the Natural Resource Trustee. Acting Gov. Paul Cellucci, Doyle, state Rep. Peter J. Larkin and state Rep. Sean Kelly ask the EPA to hold off on enforcement action to give talks another chance.

**May 20, 1998:** EPA Administrator Carol Browner says the GE offer is not enough. Pollicking over the issue is getting out of hand, an EPA official says.

**May 22, 1998:** Moderates in Congress kill a legislative rider offered by a powerful New York congressman with financial ties to GE that would prevent EPA from dredging the Housatonic. Rep. Gerald Solomon tells The Washington Post he's concerned the EPA will use the Housatonic to set a precedent for dredging the Hudson River.

**June 1, 1998:** Connecticut Gov. John G. Rowland urges the EPA to order GE to dredge the two-mile Upper Reach of the Housatonic, from the Newell Street bridge to Fred Garner Park.

**June 3, 1998:** The New England EPA office formally announces enforcement order and other steps to address contamination in the Upper Reach, after an analysis shows unacceptable health risks from exposed sediments and bank soils. From Washington, EPA's Browner announces her support for the New England office's moves.

**June 7, 1998:** GE derides EPA health assessment as "science fantasy."

**June 9, 1998:** Browner blasts GE for failure to clean up PCBs in the Hudson.

**June 12, 1998:** Doyle writes an open letter to Pittsfield residents offering more details of the brownfields agreement and GE's proposed 1/2-mile river

Page 10

cleanup. "I am writing to inform you of what we stand to lose if we do not achieve a settlement," he said.

**June 19, 1998:** EPA head Carol Browner writes GE's Jack Welch to defend the scientific assessment of PCBs as a health threat.

**July 20, 1998:** PCB talks resume. DeVillars sets an Aug. 14 deadline.

**Aug. 14, 1998:** All sides agree to postpone the "final" day of talks to let Doyle attend the funeral of his father.

**Aug. 20, 1998:** DeVillars announces a five-day suspension in the talks. A "substantial di-

vide" still separates the party on key issues, he says.

**Aug. 26, 1998:** DeVillars grants an indefinite extension as city leaders suggest a deal is closer than ever.

**Sept. 15, 1998:** EPA submits a settlement offer that attempts to close the remaining gaps in the two sides, but essentially exhausts the government's flexibility on major issues. The offer itself is not enough, but certain new elements, like EPA cost-sharing with GE on a 1.5-mile dredging program, evolve into their final form in the next 10 days.

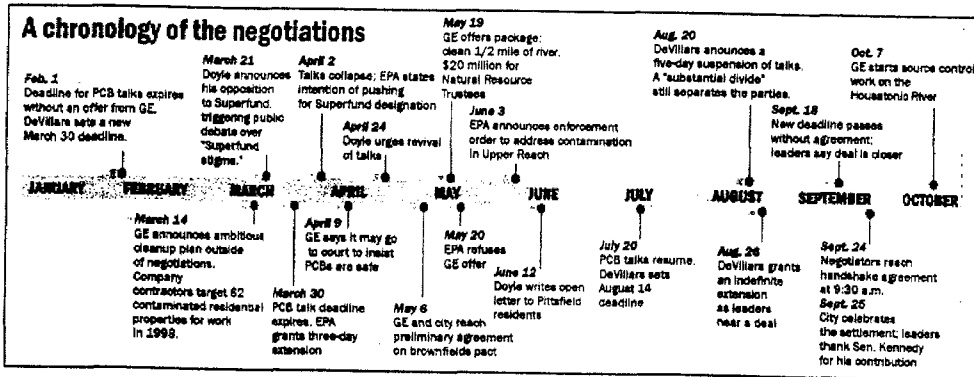
**Sept. 18, 1998:** Another deadline passes without an an-

ouncement, but agency and city leaders feel an agreement is imminent.

**Sept. 24, 1998:** Negotiators reach handshake deal on settlement at 9:30 a.m. They notify DeVillars, who is in Pittsfield for the announcement, by phone.

**Sept. 25, 1998:** City celebrates the settlement. Leaders thank Sen. Edward M. Kennedy for his invaluable behind-the-scenes work.

**October 7, 1998:** GE starts source control work on the Housatonic River, the "first fruits" of the PCB settlement, says DeVillars.



cont p. 17



John DeVillars

## EPA chief's finest hour

When Environmental Protection Agency regional administrator John P. DeVillars spoke at the press conference detailing the redevelopment of General Electric's mothballed Pittsfield plant, he joked that he felt uncomfortable behind a podium with GE's logo on it. The moment epitomized the conclusion of successful negotiations which his agency had aggressively pursued.

With the authority of environmental law behind him, DeVillars staked the cleanup of the largest contaminated industrial site in New England on a high-risk gamble: threaten the company with a Superfund designation, then offer them a way out through negotiations. It worked.

When talks teetered on the brink of failure, when GE threatened to hold Pittsfield's future hostage and wage a legal scorched-earth campaign, DeVillars kept extending the negotiation deadlines until momentum, inertia and pressure from the public and from Washington moved the parties into bargaining positions from which a settlement was achievable.

In the end, DeVillars had an agreement that cleaned the industrial site to appropriate standards; a two-mile dredging of the Housatonic River that GE had declared it would never do; a plan to remove PCBs from the river downstream; natural resource damages for South County communities; and an economic redevelopment plan for Pittsfield.

It was a settlement that, by and large, satisfied constituencies — business leaders, environmentalists, GE hierarchy and the public — that for decades had been unable to find common ground.



Stephen Ramsey

## GE's tough negotiator

Stephen C. Ramsey, General Electric's vice president of corporate environmental affairs, likes to say of himself that he's just a boy from Oklahoma. Those who endured long, grueling hours at the negotiating table with him would not be fooled by this affable modesty. They know that in assigning Ramsey as the company's lead negotiator in the PCB talks, CEO John F. Welch Jr. knew what he was doing.

Ramsey, after all, knows the Superfund program inside and out. He should. He helped write it. From 1980 to 1985, Ramsey was chief of the Department of Justice's environmental enforcement section and helped fashion the Comprehensive Environmental Response, Compensation and Liability Act known as Superfund.

From 1985 to 1990, Ramsey was a partner in the prominent law firm Sidley & Austin. In 1990, he moved to his current position, where he is responsible for GE's occupational safety and environmental programs worldwide.

In the settlement negotiations, Ramsey's wily tactics included, at one point, submerging the EPA's staff with literally tons of documentation. Perhaps Ramsey's most daunting strategy was his threatened challenge to the science underlying the EPA's assumption that PCBs constitute a probable carcinogen. Both sides agreed to address this issue another time, another place.

The Oklahoman concedes, however, that this negotiating process may ease future disputes between corporations and environmental regulators. "We should go to Washington to explain how it should be done," he said.



Gerald S. Doyle Jr.

## The mayor takes charge

When Gerald S. Doyle Jr. was inaugurated as Pittsfield's 35th mayor Jan. 5, pledging to make the revitalization of Pittsfield the hallmark of his administration, many wondered how his considerable political skills would be applied to the negotiations between the EPA and General Electric over cleaning up PCB contamination. EPA administrator John DeVillars had imposed a Feb. 1 deadline.

Doyle was never one to watch from the sidelines. Facing competing pressures from environmental activists and homeowners who called for a total cleanup of their contaminated residential properties and from business leaders who warned a Superfund designation could injure the city's economy, Doyle chose the activist course. He demanded a place for local leaders at the negotiating table — and he got it.

Taking his cue from former Speaker of the House, Thomas P. "Tip" O'Neill Jr., Doyle adopted the strategy that all negotiations are local. He reminded the representatives of both sides that the fate of a real community, with real public health issues, with real economic needs, was at stake. He organized a team of legal experts, enlisted the support of his state legislative delegation, sought and received assistance from Sen. Edward M. Kennedy, invited public counsel and participation, from both business leaders and the environmental community.

Doyle recognized that a negotiated agreement would result in a quicker cleanup of contamination, thus removing a public health threat, but also provide the city with the chance to take charge of its future.



Thomas E. Hickey Jr.

## An expert on GE site

Pittsfield City Council President Thomas E. Hickey Jr. got involved in PCBs quite by accident: He had to sell his Lakewood home in the early 1980s when PCB-contaminated oil seeped into his basement.

A former longtime General Electric employee now working for General Dynamics, the current successor to GE Aerospace, Hickey was intimately familiar with the GE site, knowledge that proved invaluable during the talks to which he and Mayor Gerald S. Doyle Jr. were admitted in the spring as city representatives. Indeed, Hickey was so informed about the history, capabilities and condition of the GE facilities that GE chairman John F. "Jack" Welch Jr. was said to have expressed surprise, admiration — and respect.

Like Doyle, Hickey was under pressure from those unsure about a settlement, including worried homeowners in his own ward. But the council president held fast to his position of favoring a negotiated settlement, and in a demonstration of his own confidence, he allowed at one Council meeting a 2 1/2-hour public comment period so that everyone concerned with the issue could speak their minds.

While Doyle was a city employee and was expected to spend days at a time, if necessary, traveling to and from Boston where the talks were being held, Hickey held a job in the private sector. Recognizing how important the PCB talks were to the community, however, Hickey's superiors at General Dynamics gave him paid leave to pursue the negotiations — another of the behind-the-scenes contributions that made the settlement possible.

cont. on p. 18



## **EPA studies will decide destiny of Housatonic**

Monday, April 12, 1999

**By Theo Stein**

Berkshire Eagle Staff

PITTSFIELD -- While much of the public's focus on the PCB issue for the last six months has been on three long-awaited Pittsfield-area projects, a large group of biologists and technicians are already conducting studies that will lay the groundwork for what's likely to be the most contentious and nationally significant fight of all.

The cleanup of the Housatonic River was the signal issue around which private advocacy groups and public officials first rallied. And of all the elements of the PCB settlement announced last fall, the debate over the Housatonic's future may turn out to be the most important part of the long fight to clean up General Electric's chemical legacy.

That's because the Environmental Protection Agency's cleanup decision hinges on a suite of sophisticated and potentially groundbreaking studies, which agency staff described for the Citizen Coordinating Council at its monthly meeting last Wednesday.

Under the agreement hammered out last year, GE, the EPA, the city, and a dozen state and federal partners agreed on the details for a massive cleanup in the Pittsfield area, which is slated to begin this summer. The agreement delayed a decision on the Housatonic below Pittsfield but set out a streamlined process for arriving at a cleanup plan that gave the EPA more authority than it had previously. EPA regional administrator John DeVillars said the agency hopes to announce its decision in the year 2002. But GE retains the right to appeal, first to the agency's Environmental Appeals Board, and then to a federal Appeals Court if it chooses.

Observers fully expect GE to take the fight to court if the EPA returns anything other than a "no action" decision. And given what regulators already know about PCB concentrations in the river, and its fish in particular, it's highly likely the EPA will order some kind of cleanup. With that in mind, the agency has built a team of pre-eminent national experts and committed itself to careful and thorough study.

Even though polychlorinated biphenyls were banned more than two decades ago, the scientific literature on exactly how they affect wildlife is still relatively thin. There are many studies that describe PCB concentrations in fish and animals across the globe, but relatively few have been able to isolate the effects of PCB exposure on wildlife reproduction and survivability.

Most of the studies that have looked at these effects were conducted in areas with multiple chemical contaminants, like the Great Lakes region, where heavy metals and pesticides are also common. Here, the Housatonic's misfortune is science's gain: PCB levels in the river mud and flood plains are among the highest of any American river. And there are relatively few other chemicals present to confuse matters.

"We're lucky here," said Susan Svirsky, the EPA's team leader for the lower Housatonic studies. "We're not trying to discern between and among the effects of different contaminants. And much of what we're doing is groundbreaking stuff. The magnitude of the studies, the power of our statistics -- it will be quite a piece of literature. It will be pretty important."

Not that the EPA's task will be easy. By itself, the hydrodynamic computer model that the EPA and GE agreed to use to predict how various cleanup scenarios will either speed up or delay the river's eventual return to health involves enough variables and advanced mathematics to make a rocket scientist's brain spin on its axis. That's to say nothing of the human health risk studies or the research on plants, insects, fish, birds, reptiles, amphibians and mammals that will eventually be plugged into the model.

Under the agreement, the EPA, the state Department of Environmental Protection and their contractors, like the U.S. Geological Survey, the Army Corps of Engineers, and the U.S. Fish and Wildlife Service, will do the ecological, human health, and hydrodynamic studies. GE will compile all the data into a facility investigation report and a corrective measures study. During that process, the EPA will submit drafts of major documents to the citizens' council for review.

At the conclusion of that process, the EPA will propose a modification of the Resource Conservation and Recovery Act permit that currently governs the GE site. Although GE has the right to appeal the decision, it agreed under the terms of the settlement to perform the work once its appeals are exhausted.

The study area, which runs from Fred Garner Park south to the Connecticut border, has been broken up into five "reaches." The first is the meandering run from the park to the start of Woods Pond in Lenox. The second is Woods Pond, a 60-acre impoundment choked with PCB-laden sediments. The third reach is the wild, cold water stretch between Woods Pond and Rising Pond in Great Barrington. The fourth is the 45-acre Rising Pond, also a man-made pond full of sediment, but whose PCB concentrations are not well understood. The fifth reach runs through agricultural land and ends at the Connecticut border.

The two ponds are a particular concern to Connecticut officials. Most of the PCBs released from GE's plant are upstream of the two impoundments. Any dam breach could send a plume of contaminants south into the Nutmeg State, where the river is cleaner than in Massachusetts.

Along the roughly 30-mile stretch from Pittsfield to Rising Pond, the EPA intends to take more than 8,000 soil and sediment samples and analyze water taken from 17 locations. They'll also analyze leopard frogs, largemouth bass, tree swallows and mice for PCBs.

And they're ready to mobilize in the event of extended, heavy rains to examine how floodwaters move PCBs down the river and out onto the flood plains.

The focus of all this study is to develop data to plug into the computer model that the EPA will use to pick a cleanup plan. The model will predict how PCBs will move

through the river system over time, Svirsky said, and allow researchers to evaluate how doing more or less cleanup will impact people and wildlife.

"With this, we'll be able to estimate the amount of time required before people can consume fish, or the number of years it will take to allow PCB body burdens in a certain kind of critter to diminish enough to allow reproduction," Svirsky said Wednesday night. Researchers currently believe that mink and otter, which prey on fish and amphibians, are unable to reproduce along the river because of PCB contamination. One of the EPA's studies is looking at this issue.

The model will also attempt to predict how PCBs will move during major floods, which the Housatonic hasn't seen for more than four decades.

Modelers will consider all alternatives, including "natural attenuation," which means leaving the PCBs to degrade under environmental conditions. GE scientists have often said natural attenuation is the safest and most effective way to handle contaminated sediments.

Online readers who want to learn more about the PCB issue and last fall's settlement can find The Eagle's special PCB report at [www.newschoice.com/PCB](http://www.newschoice.com/PCB) <[HTTP://www.newschoice.com/WebNews/index/NebeScr3i.asp](http://www.newschoice.com/WebNews/index/NebeScr3i.asp)>.

B. EAGLE 6/7/99

# 22 PCB cleanups being done this year

By Theo Stein

Berkshire Eagle Staff

PITTSFIELD — GE contractors are in the process of finishing off the first three of 22 residential fill cleanup projects scheduled for this year.

J. Lyn Cutler, section chief for the Department of Environmental Protection's Bureau of Waste Site Cleanup, said contamination on 8 lots will be addressed by the 22 projects.

One project, involving homes on Elm Street, is under way, she said. The three projects in the final phase of restoration are on Cronita Avenue, and Lyman and Irving streets.

Five additional remedial action work plans have been approved by the DEP. GE has submitted work plans for four more, which are under review by the DEP.

Work plans for nine others are on track but not yet submitted, Cutler said.

One of those plans involves a heavily contaminated parcel at the end of Melrose Avenue next to Goodrich Pond, which GE bought

last month for \$2,500.

Residents are concerned that GE will attempt to cap the lot and not address the high PCB levels several feet underground, which state cleanup regulations would permit. GE has not indicated how it intends to address the cleanup of that lot and several adjacent properties.

Since the residential fill problem burst onto the city's consciousness in 1997, GE, the DEP and the Environmental Protection Agency have sampled 259 parcels, 158 of which had or have individual samples over 2 parts per million, which is the threshold for further investigation. Of those, 65 had or have contamination levels that pose potential imminent hazards, typically defined as levels of 10 ppm or higher in the top 6 inches in an unrestricted area within 500 feet of a residence.

In the last two years, 69 residential fill properties have been remediated, Cutler said, most of those in 1998.

The state's hazardous waste cleanup law states that the soil of

residential properties may contain no more than 2 ppm — on average. Members of local environmental advocacies and citizen activist groups say the state standard doesn't go far enough. The averaging method, they point out, allows the company to leave areas with PCB levels higher than 2 ppm, as long as the rest of the property is clean. They want the company to remove all soils with 2 ppm or higher.

Earlier this year, GE refused a DEP request to test all city parks for PCBs on the grounds that there was no clear or credible evidence linking the properties to the company. In August 1997, the state closed a popular West Street park that was a former scrap yard after high levels of PCBs and other contaminants were found there.

One of the properties GE has refused to sample is the old King Street dump, despite the fact that GE staff on a recent site visit identified company transformer parts.

Since January, the DEP has referred some 52 new properties to EPA for sampling because they didn't meet GE's testing criteria. One of those is the Herberg Middle School.

Late last fall an Evelyn Park homeowner, concerned about stories he'd heard about his development's construction, collected a composite soil sample from his yard and had it tested at a Lee lab.

The test showed the soil contained 18 ppm PCBs. Subsequent tests performed by GE revealed much higher contamination, up to 96 ppm between 1 and 2 feet.

Now GE is expanding its investigation in that area and intends to sample seven adjacent properties on Evelyn Park and Cecelia Terrace.

Still, the pace of discoveries is

slowing down, she said.

"Hopefully, it means we're defining the extent of off-site contamination, but it still could be that we haven't reached out with the appropriate message to all necessary parties," she said. "I expect over the next few years we will find additional properties."

And since the DEP's efforts have been tightly focused on residential sites in the last two years, there has been little work done on a large pool of known or potential commercial PCB sites.

Cutler acknowledged that commercial site investigations have taken a back seat to the residential problem because of the greater exposure and potential risk.

The DEP and the EPA intend to hold a public meeting to update residents on the fill cleanup issue on June 17. The meeting is scheduled for 7 to 9 p.m. at the council chambers at City Hall.

## **River ducks full of PCBs**

State set to issue a health advisory

Friday August 27, 1999

**By Theo Stein**

Berkshire Eagle Staff

PCB levels in ducks collected along the Housatonic River near Woods Pond last fall by the Environmental Protection Agency were among the highest biologists have ever seen - - hundreds of times higher than the federal government considers safe to eat.

Based on the new EPA data, the state Department of Public Health is expected to issue a public health advisory as early as today strongly warning sportsmen about the dangers of eating contaminated waterfowl. The state also is offering free screenings and blood tests for sportsmen who fear they may have ingested PCBs with their game.

Prominent signs warning against the consumption of fish, frogs and turtles taken from the river have been posted since 1982, but there has been no such advisory concerning ducks. Sportsmen have continued to eat the ducks they shoot each fall over the river.

Until now.

Hunters concerned

Chet Farmer, 51, of Lee said he eats about 30 ducks from the Housatonic every year.

"I've been eating ducks from the river for 25 years -- a lot of them," he said last night at a small presentation by EPA project manager Susan Svirsky at the Lee Sportsmen's Club on Fairview Street.

"I'm very concerned. My family eats them. My kids eat them."

Farmer said he hunts both upstream and downstream of Woods Pond, the 104-acre impoundment above which most of the PCBs are believed to be lodged.

The EPA data also show that the PCBs used by GE as an insulating fluid in transformers from 1930 to 1977 are being transported south each winter along the Atlantic flyway, concentrated in the fat of migrating ducks.

In fact, even ducks taken from an uncontaminated pond in Sheffield used for comparison had more PCBs on average than ducks studied on the contaminated Fox River near Green Bay, Wis., where the state has posted a consumption advisory.

"It's extraordinary," said Thomas Keefe, the western district manager of the Division of Fisheries & Wildlife, which owns the 818-acre Housatonic Valley Wildlife Management Area.

"If this is any indication of how this chemical compound has permeated that ecosystem, it's extraordinary."

The agency was particularly anxious to get the new data out to hunters, because the goose season opens in less than two weeks.

The U.S. Fish and Wildlife Service will be notifying other waterfowl biologists up and down the East Coast.

Another state with a duck advisory, New York, has warned hunters to eat no more than two meals of duck a month because of contamination in the Hudson River, for which GE also is responsible.

Svirsky said PCB levels in Housatonic ducks were much higher than in either Hudson or Fox River waterfowl.

GE spokesman Gary Sheffer, a former New York Department of Environmental Conservation official, said yesterday it was "too early to draw conclusions."

"We will carefully review [the EPA data] and continue to work with [the] EPA and [Massachusetts], as we are working with them on other matters," Sheffer said.

He added that a 1997 blood serum study performed by the Massachusetts Department of Public Health of people living near the Housatonic showed PCB levels similar to those found in the general public.

The release of the duck study represents the first salvo by the EPA of what promises to be a long fight with GE over how much of a cleanup, if any, the company should be ordered to perform on the Housatonic.

The river's mud has some of the highest PCB contamination of any American river and its fish show the highest PCB burdens anywhere in the country.

The study looked at 25 mallards and wood ducks collected from river backwaters upstream of Woods Pond in Lenox and 20 more from the 168-acre Three Mile Pond in Sheffield, an uncontaminated "reference area." Mallards and wood ducks are dabbling ducks and a favorite target of hunters.

All of the ducks collected from the river backwaters during the study showed elevated levels of PCBs in both their breast and liver tissue. PCB levels measured according to FDA testing practices averaged 648 parts per million in ducks collected from contaminated areas of the river.

Housatonic duck livers averaged 262 ppm, with a high of 985 ppm.

The FDA standard for poultry is 3 ppm, adjusted for fat content. Wisconsin is one state that has adopted the FDA poultry standard for waterfowl. Canada's federal Department of Health and Welfare has set a 0.5 ppm consumption standard.

On a strict weight basis, duck breast tissue averaged 7.1 ppm for Housatonic ducks, with a high of 19.4 ppm.

Svirsky said analysis of the duck tissue showed very low levels of pesticides and dioxins, but elevated levels of dibenzofurans, which are a byproduct of heating PCBs. She said the agency would evaluate this discovery further.

The EPA also will be analyzing which forms of the PCB molecule were present in the ducks. Polychlorinated biphenyls are a family of 209 distinct chemicals that vary in the number and placement of their chlorine atoms. The trade name for the PCBs used by GE -- Aroclor 1260 or 1254 -- refers to the percentage of chlorine in the mixture.

The chemical analysis was performed by the Texas A&M University lab, one of the nation's top research centers for organic contaminants.

The birds in the study, most hatched last year, were collected in August and September of 1998, dates selected to precede the start of migration. The study showed that even hatchlings absorb PCBs from the environment at a rapid rate.

The Department of Public Health, which has worked closely with the EPA on the matter, is expected to announce new guidelines for eating ducks today. Spokeswoman Rose Ann Pawelec said sportsmen and anyone else who wants more information on PCBs can call (800) 240-4266.

It would be the nation's third PCB-related waterfowl consumption advisory.

The EPA also is seeking people who may still eat fish, frogs, ducks or turtles from the river for its overall human health risk assessment, which is part of the not-yet-signed cleanup consent decree that negotiators have been working on for almost two years.

Svirsky said attempts to locate mink and otter along the main stem of the river last winter were essentially fruitless, though researchers found both animals abundant in uncontaminated river tributaries. The EPA is conducting additional studies of tree swallows, largemouth bass, fern fiddleheads, aquatic insects and other subjects.

The Housatonic River study did not look at mergansers, a fish-eating duck that dives after its prey. The EPA expects that mergansers would show even higher contamination levels because they eat only fish, which concentrate PCBs in their tissues by eating insects and smaller fish that forage in the contaminated sediments. But mergansers are generally not considered good eating.

Likewise, Canada geese were not studied. Biologists believe that geese, which graze in uplands away from water, would accumulate PCBs at a lower rate than dabblers like mallards.

Svirsky said the agency will also look at the migrating patterns of banded ducks. Keefe said mallards may fly only as far south as Long Island Sound, but wood ducks migrate to the Carolinas, Georgia and Florida.

Mark Jester, president of the Berkshire County League of Sportsmen, said sportsmen had long assumed Housatonic ducks were contaminated. But he said the high levels surprised them.

"I think people just didn't want to hear it," he said. "But there's no way around it now."



# Signed, sealed, delivered

## Cleanup of river, GE plant can begin

By Greg Sukiennik  
Berkshire Eagle Staff

PITTSFIELD — The consent decree setting forth the PCB cleanup agreement between General Electric Co., the Environmental Protection Agency, the city of Pittsfield and other federal and state agencies was signed and put before a federal judge in Springfield yesterday afternoon.

The document, the product of two years of often-tense negotiations between the government and GE and years of effort on the part of lawmakers and river advocates, details the manner in which the first two miles of the Housatonic and the former GE transformer plant will be cleaned up.

While an EPA statement set forth the major details of the document yesterday, the decree itself will be released shortly. The document, complete with appendices, stands 3 feet high. Officials plan to make the document as widely available as practical, and to hold several public forums at which the decree's contents will be explained.

Residents have 60 days to comment on the decree. After those comments and further EPA review, a federal judge at U.S. District Court in Springfield will decide whether to accept the decree as a legally binding document, reject it, or return it with specific suggestions.

### More studies

Further cleanups of the river will be governed by studies, including computer modeling of the lower reaches of the Housatonic.

The deal also clears the way for GE to begin its two-year, half-mile cleanup of the East Branch of the Housatonic between the Newell Street bridge and the Lyman Street bridge immediately. When that stretch of cleanup is done, EPA will take over, cleaning the next mile and a half from Lyman Street to the confluence of the river's East and West

branches at Fred Garner River Park.

The company said preliminary work on the river cleanup could begin as early as next week.

County environmentalists said they were pleased the decree had been signed, and added they awaited the details eagerly.

"We look forward to the decree becoming a public document," Tad Ames of the Berkshire Natural Resources Council said. "We hope that as we turn to the next phases of the river cleanup, the public is much more involved in input and negotiations than what went into this one."

Tim Gray of the Housatonic River Initiative said his group is happy that its "10 years of hard work to get the cleanup on the map" eventually resulted in a plan to address the PCBs in the river.

"Now, surely South County has a big job to do," Gray said. "We must be absolutely sure that we don't stop in Pittsfield, and continue to advocate for the complete cleanup of the Housatonic, so some day our kids can fish and swim in the river."

### Brownfields kicks in

The decree also clears the way for demolition of the tank farm and power plant along Silver Lake Boulevard, and the demolition of several buildings, clearing the way for the first phase of the brownfields development package. The city, through the Pittsfield Economic Development Authority, plans to turn that mostly vacant industrial property into an industrial and technology park, bringing new jobs to the area.

"I strongly believe when that

[demolition] is done not it will not be a case of administrators or agencies talking about it," Mayor Gerald S. Doyle Jr. said. "The citizens of Pittsfield and Berkshire County will finally be able, after all these years, to see results."

Government sources said the total value of the cleanup is expected to reach \$350 million, and depending on yet-to-be determined cleanup plans for the river south of the 2-mile mark, could rise as high as \$750 million.

Those sources said the first two miles of cleanup will cost \$125 million; GE believes that cost is closer to \$150 million. As for estimates that the lower reaches of the river could cost between \$100 million and \$500 million to clean up, GE spokesman Gary Sheffer said such estimates are speculative because no cleanup plan has been proposed.

Cleanup plans south of the first two miles depend on the results of EPA studies, and any challenges

CONT.

10/8/99

to those studies GE may raise in court. While GE can challenge EPA's findings, it must live with whatever the courts eventually decide.

The decree was released hours before a settlement between GE and Attorney General Thomas Reilly was announced. That pact, in which the state settled its civil case against GE, in which it alleged the company did not follow state regulations on reporting PCB-contaminated fill, is worth

\$1.25 million, including a \$1 million environmental projects fund for county residents. (See related story.)

Officials said the settlement between Reilly and GE was a separate issue from the consent decree. GE, through spokesman Gary Sheffer, said it is the company's view that the settlement is part of the "global resolution of its issues in Pittsfield."

But one source familiar with the negotiations said, on condition of anonymity, that the decree, which was very close to completion weeks ago, would not have moved forward without the settlement.

Officials including Doyle and EPA Region 1 Administrator John P. DeVillars, as well as GE, are confident that the federal court will approve the consent decree, in no small part due to support for the deal from the varying parties to the negotiations. "Our legal team and the rest of folks we have talked to feel very confident, and it has the full blessing of all parties involved," Doyle said.

The parties to the talks are also glad that a two-year chapter has been all but closed, and that the parties can now move ahead.

"It's entirely consistent with what we shook hands on a year ago," DeVillars said. "It meets the environmental and economic restoration goals that we set out at the beginning of the process ... any time you can achieve an outcome of this significance at the bargaining table as opposed to years of dueling in a courtroom, you should be pleased and satisfied."

DeVillars did say he wished there were more money for natural resource damages (NRD) restorative projects.

"I would like to have seen more

on the NRD side, but this is a fair outcome," he said. "When looked at in its entirety, it passes every test of environmental or economic responsibility that I or any other fair-minded environmentalist could set."

Sheffer and Stephen D. Ramsey, vice president of environmental affairs for GE, said the company is pleased with the results, and looking forward to moving ahead.

"GE feels this is an example of the kinds of constructive results you can have when everyone sits down in a spirit of cooperation and good faith," Sheffer said. When asked if the lessons of Pittsfield could be applied to the Hudson River, which also faces PCB issues, he said, "There are significant differences [between the Hudson and the Housatonic], but there are some best practices here that can be applied elsewhere."

Ramsey called the deal a "blueprint for fixing the past so that Pittsfield and Berkshire County can focus on the future."

"Like all settlements, this one required compromises from all sides. But it shows that creativity and constructive solutions can emerge when government and business sit down to negotiate in good faith," Ramsey said in a prepared statement.

Doyle said the consent decree, and the work plans it sets forth, are a good way for the city to end this century and move into the next.

"This is an example of how this administration and the rest of the city's officials have decided for first time in a long time not to move backward, but to move forward and stress the positives and good things that are happening," Doyle said. "We're entering the next millennium on a huge positive note."

## Letters to the Editor

### Removal is only option for PCBs

To the Editor of THE EAGLE:-

On September 9, Gregory Donahue wrote a letter to the editor that spoke about the cleanup of the Allendale School property removing the PCB contamination that was placed there by General Electric. He spoke of the hard work of the Allendale School Council in getting the cleanup and the fact that the contaminated soils removed from the playground were being placed on Hill 78 (a GE-owned toxic dump). He did not say that Hill 78 is less than 50 feet from the edge of the playground.

Mr. Donahue stated that placing the contamination on Hill 78 was a compromise, making it sound as if this was to be a temporary solution and that Hill 78 would be cleaned up in a few years.

I do not know what meetings Mr. Donahue has attended, but every meeting that I have attended with General Electric, the Massachusetts Department of

Environmental Protection and the Environmental Protection agency has resulted in the same outcome. The Hill 78 and Building 71 landfills are considered permanent facilities and while they will be monitored, there is no intention of removing the new or old contamination from these sites. The end result is that these heavily contaminated toxic dumps will remain next to the school playground in a residential neighborhood in our city.

While I am immensely pleased that General Electric has finally and properly cleaned Allendale School and says that it will begin cleaning the Housatonic River, I am disappointed that the consent decree that is still being negotiated has not been completed and that it will inevitably contain language that retains these landfills as permanent.

Now there is disturbing news from Denver, Colorado that a landfill that was created in 1991 by the Environmental Protection Agency at the Shattuck Chemical Company is leaking into the land and river near the facility (Berkshire Eagle, September 22). We must not allow the same thing to happen here.

Fortunately, we still have time to get the consent decree changed to reflect a commitment from General Electric to remove or treat all the PCB contamination. Since General Electric has stalled the completion of that document for over six months, we must be united in adding this requirement to that document.

So I challenge Mr. Donahue, the rest of the Allendale School Council, the Allendale teachers, neighborhood residents, the mayor and City Council and all other residents of Pittsfield to stand together and demand that all PCB contamination be removed from the soils and waters of Pittsfield and Berkshire County. No more landfills, no more caps, no more temporary measures. Removal is the only option.

CHARLES P. CIANFARINI  
Pittsfield, Oct. 2, 1999

10/8/99



Ben Garver / Berkshire Eagle Staff

After a meeting at the Christian Center yesterday, Mayor Gerald S. Doyle Jr., left, tells the news of the finalized consent decree to city councilors Jamie Williamson and Jim Massery.

## Main Points of Agreement

► **River cleanup:** GE will begin cleanup of the first half-mile of the Housatonic River (between the Newell Street and Lyman Street bridges) immediately. That cleanup, of the most heavily contaminated portion of the river, is expected to take two years.

Following the cleanup, responsibility for the next 1 1/2 miles belongs to EPA. The agency's studies of that portion of the river will be made public later this fall. While GE will pay most of the cost for the first two miles, EPA will pay a share for the second 1 1/2 miles.

► **Source controls:** Already, pumping equipment has removed 8,000 gallons of oil from underneath the Newell Street parking lot. Pollution controls will continue as long as needed, as neither EPA nor GE wants to perform the same cleanup twice.

► **Disposal:** Sediments will be disposed of in the Hill 78 landfill off Tyler Street Extension, a fact that troubles some residents and environmentalists. But EPA has assured residents that the landfill will stand no higher at the end of the project than it stands now.

► **GE Transformer:** GE will shortly begin demolition of old buildings on the campus, including the tank farm, the power plant and buildings in the 30s and 60s complexes. The plant will be transformed into a brownfields redevelopment site, where city officials are hoping new employers will take advantage of the plant's industrial zoning, utilities and rail access and bring new jobs here.

► **Natural Resource Damages:** A panel of trustees, representing Massachusetts, Connecticut, the U.S. Fisheries and Wildlife Service and the National Oceanic and Atmospheric Administration, will distribute \$15 million of NRD funds to projects in affected communities.



[Click here to visit site](#)

[Lycos Home](#) > [News](#) > [Environment](#) >

[Top News  
Headlines](#)

[Environment  
News Message  
Board](#)

[Personal News  
Page](#)

[Environment  
Websites](#)

[News Web Guide](#)

[Current Events  
Chat](#)

[Science News](#)

[E-Wire  
Instant Updates](#)

[Environment  
News Index](#)

[Environment  
Events Calendar](#)

[ENS Features](#)  
[EcoTravel](#)  
[EDF Scorecard](#)  
[Shopping Green](#)  
[SustainableBusiness](#)  
[Cartoons](#)

 **Environment**



## GE Squeezed Into \$250M PCB Cleanup

**WASHINGTON, DC**, October 8, 1999 (ENS) - General Electric Company has agreed to spend an estimated \$250 million to clean up the Housatonic River, polluted by decades of hazardous chemical discharges from its plant in Pittsfield, Massachusetts. The settlement, announced Thursday, finalizes cleanup and reclamation plans that the company has been negotiating with the U.S. Environmental Protection Agency (EPA), the Department of Justice and state officials for more than a year.

From the 1930s until 1977, General Electric (GE) manufactured transformers and other equipment containing polychlorinated biphenyls (PCBs) in Pittsfield. By the time the federal government banned PCBs in 1977, the 250 acre site and the nearby Housatonic were heavily contaminated with PCBs and other hazardous materials.

**A stretch of the Housatonic River** (Photo by AM Dromaris. All photos courtesy Housatonic River Initiative)



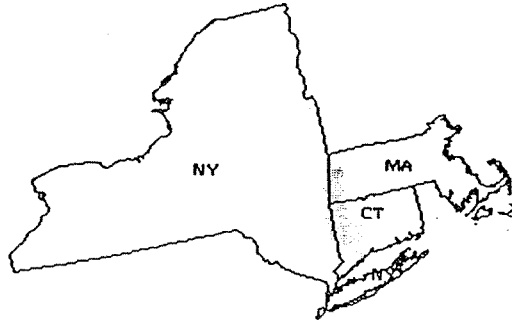
Today, PCBs are found in the Housatonic River from western Massachusetts to its mouth in New York's Long Island Sound.

"This consent decree means GE will clean up the Housatonic River," said Lois Schiffer, assistant attorney general for environment and natural resources, announcing the completed agreement. "Today's settlement is a major step by GE toward ending the legacy of pollution in the river."

GE agreed to pay for the cleanup in September 1998, but the signing of a formal consent decree was delayed by complex negotiations between the company and federal and state officials. "You get the lawyers involved and time does slow down." noted GE

spokesman Bruce Bunch.

**The Housatonic River watershed covers parts of three states (Map courtesy EPA)**



Under the legally binding consent decree, GE has agreed to shoulder the full costs for removing contaminated sediment from the half mile stretch of the Housatonic nearest the GE plant by

May, 2001. GE will also clean up contamination at the Pittsfield plant and other sites in Berkshire County, including a school and several commercial properties.

Through a cost sharing agreement, GE will also pay much of the price for the EPA to clean up an additional one and a half mile stretch of the river. The EPA estimates that cleaning up the plant and these river stretches will cost the company more than \$200 million. GE estimates that cleanup costs will only be about \$150 million.

"The consent decree agreement ... is a detailed blueprint for fixing the past so that Pittsfield and Berkshire County can focus on the future," said Stephen Ramsey, GE vice president for corporate environmental programs, in a statement released yesterday. "Like all settlements, this one required compromises from all sides. But it shows that creative and constructive solutions can emerge when government and business sit down to negotiate in good faith."

**This house in the Lakewood section of Pittsfield was condemned due to heavy PCB contamination**



GE will also carry out a redevelopment plan for parts of the Pittsfield facility, designed to bring new commercial life to the surrounding town. Part of the site will be transferred to the Pittsfield Economic Development Authority, after the buildings are demolished and the underlying soil is cleaned. The EPA estimates the costs of this project at \$50 million.

"The investment in community restoration and community development represented by this agreement should benefit the citizens of Pittsfield and Berkshire County," said Ramsey.

Later, after the EPA selects a cleanup plan for downstream portions of the river, GE will perform that cleanup as well. The cost of cleaning these additional river miles will be in addition to the hefty

price tags attached to restoring the areas close to the plant.

Government sources told ENS the final cleanup costs, including downriver stretches, could easily reach \$350 million, and may run as high as \$750 million.

GE has already agreed to a natural resource package to help restore downstream areas damaged by pollution from the Pittsfield site. The company will make \$15 million available to natural resource trustees - including the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, and Connecticut and Massachusetts state agencies - to restore or acquire habitat and promote wildlife recovery.



**Residents of Lakewood and other Housatonic communities have pushed for a comprehensive cleanup plan**

Up to \$4 million in potential future revenues from the redevelopment of the Pittsfield site could also be made available for natural resource projects, through a special agreement with the Pittsfield Economic

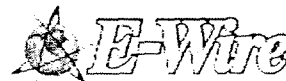
Development Authority.

"This agreement is the most significant step yet for our common goal of the environmental and economic restoration of Pittsfield," said John DeVillars, administrator of EPA's New England office.

Cleanup of the first half mile of the Housatonic near the plant will begin immediately. The rest of the cleanup will proceed on an expedited schedule outlined by the EPA.

The consent decree, filed in U.S. District Court in Springfield, Massachusetts, is subject to a 60 day comment period. A U.S. District Judge must approve the settlement before it becomes final.

© [Environment News Service \(ENS\)](#) 1999. All Rights Reserved.



Environmental Press Releases

### **Free ENS Daily News Feed by Email**

Enter Email Address Here:

[Email the Environment Editor](#)

## Cleanup done on first section of East Branch of Housatonic December 9, 1999

By Greg Sukiennik  
Berkshire Eagle Staff

PITTSFIELD -- Three hundred feet down, half a mile to go.

That's the state of affairs in the East Branch of the Housatonic River, where the first section of the so-called "first half-mile" cleanup -- the section of the river between the Newell Street and Lyman Street bridges -- has been completed.

Three weeks of work by contractor J.H. Maxymillian has decontaminated a 300-foot by 150-foot section of the East Branch, from which 300 cubic yards of material has been removed and replaced with rock, a geotextile membrane and clean, sandy fill.

Pleased with process

Both the U.S. Environmental Protection Agency and General Electric said yesterday they are pleased with the way the process they agreed to for the cleanup has worked thus far.

Yesterday, Maxymillian workers were already busy preparing the next section of the cleanup. While one worker removed the yellow plastic barrier that runs along the shoreline of the river, a crane lowered a bridge in place spanning the north bank and a platform in the middle of the river.

Workers have effectively split the river in half with metal sheet piling, allowing them to drain parts of the riverbed and remove PCB-contaminated sediment. As was the case with the first section, workers will seal it off, drain the water, then remove PCB-contaminated sediment.

While the first section, or cell, of the cleanup was a relatively low-contamination area, workers did find some oil as they dug through the muck, Bryan Olson of EPA reported.

"We ran into a couple of areas where we found some material that looked a little more contaminated, including some oil," Olson explained. "What's important is when we found the area with oil in it, we started digging and hit the bottom of it."

GE and EPA agreed to the cleanup plan in August as part of the consent decree between GE, the city and federal and state agencies. The first half-mile of the East Branch, which was rerouted by the Army Corps of Engineers earlier this century, holds some of the highest concentrations of PCBs found in any river in the country.

The company is paying for the first half-mile cleanup. When the first half-mile is finished in May 2001, EPA will begin the next 1 1/2 miles of cleanup, for which GE and EPA will share the cost.

---

© 1999 by MediaNews Group, Inc. and Pittsfield Publications, Inc.



Wednesday, August 23, 2000

## **PCB cleanups moving briskly at residences**

By Jack Dew

Berkshire Eagle Staff

PITTSFIELD -- By the end of the year, General Electric Co. will have removed PCB-contaminated soil from about 170 residential properties in Pittsfield and will have cleaned almost all of the properties thus far identified as contaminated.

Since 1997, GE says, it has performed PCB testing on 207 residential properties in Pittsfield. Of those, about 180 have been identified as contaminated. Under a consent agreement between GE and the Massachusetts Department of Environmental Protection, the cleanup has moved briskly.

"You will not find cleanups being done at this pace anywhere else in the commonwealth or anywhere else, period," said J. Lyn Cutler, a DEP section chief of special projects. "The cooperation between [GE] and the department has really enabled the department to ensure that residential properties are remediated in record time."

The remediation process is a dramatic one. Large excavators and earth movers come in and scoop out contaminated soil. Trees are cut down, gardens destroyed. The removed material is replaced with clean fill, and landscapers plant new trees and replace hedges.

For affected residents, the process has been difficult at times. The impact of the cleanup on their property often comes as a surprise, and the accumulated weariness at the change is often difficult to take.

"Change is always hard," Cutler said. "And when you suddenly find that you don't have shade where you once had it, and your interior houseplants aren't the appropriate ones anymore because your tall trees are gone, well, it's the little things, it's the small impacts that sort of build up and irritate people."

PCBs, or polychlorinated biphenyls, are believed to cause cancer in humans. They were used at GE's Pittsfield plant until 1977, when the government prohibited their use. However, for decades GE employees had been carting dirt contaminated with the toxin to their homes, where they laid it down in their yards.

Brattle Street, a small, dead-end lane lined with homes, is believed to have been contaminated during the 1950s. The DEP has said it believes a resident at the time was a GE employee and had access to contaminated fill, which he may have used to fill in the road.

Samples of surface and subsurface soil taken on Brattle Street last year identified an area with PCBs in excess of 150 parts per million. The permitted PCB level on residential properties, by comparison, is 2 parts per million.

Portions of five yards along Brattle Street have recently been dug up and replaced with clean fill. The scars of that activity are still visible -- broad swaths of green lawn are gone, replaced by hard-packed dirt covered with grass seed that has not yet produced grass.

The soil that GE put down, however, has drawn heavy criticism from residents. It is rocky, with stretches that look more like a gravel driveway than topsoil, they say. While grass seed has been sown, none has yet sprouted, and many residents said they doubted they ever would with such poor soil for a host. One man who lives on the street said he would be afraid to mow his lawn, with so many rocks lying on the surface.

Gary Sheffer, a GE spokesman, said the company has listened to resident complaints in the past, and will listen to the people on Brattle Street. A GE representative, Sheffer said, was to visit the site last night.

"No one likes to have their lawn dug up, no one likes to be inconvenienced. We have, in most cases, been able to resolve disputes with homeowners," Sheffer said. "We have tried to accommodate every reasonable request by the homeowners."

Thursday, October 12, 2000

## **PCB cleanup method to be announced soon**

By Jack Dew

Berkshire Eagle Staff

PITTSFIELD -- The final announcement of the method that will be used to remove PCBs from a section of the Housatonic River is expected next week, according to the U.S. Environmental Protection Agency.

The EPA announced its plan in July, which was followed by several weeks of public comment. The comment period later was extended two weeks at the request of General Electric and closed Sept. 1.

Since then, the EPA has been drafting its final proposal, which will contain the agency's response to public comments and will outline how it intends to remove and store contaminated sediment and riverbank soil from a 1.5-mile stretch of the Housatonic. The final plan had been expected in September, but was delayed by the extended public comment period.

The effort will excavate contaminated bank soil and river sediment from the Lyman Street Bridge to where the east and west branches of the Housatonic meet. The EPA estimates that about 94,000 cubic yards of soil will be removed, 50,000 of which will be placed in a designated landfill in GE's former transformer manufacturing plant.

The total cost of the 1.5-mile cleanup is estimated to be \$45 million, with GE paying the bulk of that expense under the terms of the pending consent decree that is awaiting a decision by a federal judge in Springfield.

The plan represents the second stage of a project that will remove PCB-contaminated sediment and bank soil from two miles of the Housatonic. GE is in the process of cleaning the first half-mile of that area and last week requested that its deadline be extended from May until August for the completion of that cleanup.

Bryan Olson, the EPA's Pittsfield project manager, said the agency will determine soon whether to grant that extension. GE told the EPA its work in the river was slowed by heavy rains this summer and the discovery of more coal tar and PCB-contaminated oil than had been anticipated.

"We are trying to review (GE's request) in a fair amount of detail to make sure that we understand what delays there were and whether or not there are ways to try to get back on schedule," Olson said.

The timing of GE's cleanup is linked to the second phase of the Housatonic project; the EPA cannot begin its work in the lower part of the river until GE's work is complete. As it stands, the EPA expects the 1.5-mile cleanup to take three to five years.

During the public comment period, the EPA's plan drew fire from all sides. Environmental advocates called it too lenient and feared it would leave too much contamination in the river, while GE said it would reduce PCB levels in the Housatonic far below what was necessary to be protective of human health.

---

© 2000 by MediaNews Group, Inc. and New England Newspapers, Inc

Saturday, October 28, 2000

## **PCB cleanup gets green light**

By Jack Dew

Berkshire Eagle Staff

SPRINGFIELD -- The mammoth PCB cleanup agreement between the government and General Electric was approved yesterday by a federal judge, paving the way for removal of the toxin from Pittsfield and stretches of the Housatonic River and for an intense investigation into the scope and impact of the contamination on the ecosystem.

The terms of the settlement were reached in 1998 by GE, the U.S. Environmental Protection Agency, the city of Pittsfield and eight additional state and federal agencies. Under the agreement, signed last year, GE will be required to pay the bulk of the cost of removing PCBs left by years of transformer manufacturing at its Pittsfield plant.

In its filings with the court, the government estimated the cost of the cleanup at between \$300 and \$700 million. GE has said it can be accomplished for about \$150 million.

### Payments triggered

U.S. District Court Judge Michael A. Ponsor approved the terms of the settlement after a hearing in the federal courthouse here. His approval allows the document to become binding on all parties and triggers a series of payments from GE to the EPA, money that will be used to fund more investigation of contamination in Pittsfield and a number of removal actions in the Housatonic and properties in the river's floodplain.

The ruling came after four groups granted permission to argue against the settlement were heard. All four opposed the agreement as too flimsy a tool by which to remedy the damage done by GE. Each offered more focused arguments, claiming in turn that the settlement would allow for an improper seizure of property or would fail to protect the health of residents both in Massachusetts and Connecticut, where the river flow has deposited PCB contamination over the years.

A group of Newell Street business owners had objected to the settlement on the grounds that the cleanup standards it will employ for their properties are insufficient. They wanted every trace of PCBs removed.

"The problem with this settlement is that [the EPA has] decided what is necessary and appropriate. Nowhere else in the state have they decided what is necessary and appropriate," said Cristobal Bonifaz, the attorney hired to represent the Newell Street businesses objecting to the agreement.

Bonifaz said it was a "sweetheart deal" for GE and said the settlement had been struck too quickly, before the extent of the contamination was truly understood.

The arguments were made with a great deal at stake. Had the intervenors convinced Ponsor that the settlement was either not in the public interest or legally flawed, the entire document, reached after months of intense negotiations, would have been thrown out and the parties forced to return to the negotiating table or pursue their claims in court.

Ponsor said the fate of the case, should it ever reach trial, was uncertain, made murky by a three-year statute of limitations that began ticking when the contamination was first discovered.

"It's easy to be on the outside of the process and say they could just sit down again and negotiate. Is it really so simple?" Ponsor said. He later added, "I'm concerned a little bit that if this case were to go to litigation, the result would be an award far less than what is being created here."

GE used polychlorinated biphenyls, or PCBs, until 1977 as an insulator in transformers. During decades of manufacture at its Pittsfield plant, the PCBs, in oil form, spilled, leaked or were dumped into the ground. Carried by ground water, they migrated to the Housatonic, where the river's current moved them downstream. Tests on fish taken from the Housatonic revealed the highest concentration of PCBs of any river in the country. Traces of the pollution have been detected as far away as Connecticut.

The use of PCBs stopped when the government banned them in 1977. Scientists now believe PCBs are a probable carcinogen in humans and have gathered voluminous evidence that they have a devastating impact on animals.

With the settlement now final, GE and the EPA will begin further investigation in GE's 245-acre plant and will move ahead with the cleanup of two miles of the Housatonic.

As well, GE will pay the EPA about \$15 million in the next 30 days, compensation for the agency's past investigation into the pollution. Part of that money will be used to advance an intense investigation into contamination of the lower reaches of the river, where the EPA has been gathering data it hopes will reveal the impact of the toxin on the ecosystem there. The study is among the most in-depth ever conducted on a river.

The settlement also allows the Pittsfield Economic Development Authority to begin work on developing portions of the GE plant for economic reuse. As part of the \$45 million package, GE will turn over 52 acres of the site to PEDA, which will develop and market the property to potential tenants.

GE's agreed-upon payment of \$15 million in compensatory money for damages done to natural resources must also be made within the next 30 days. Those funds will be administered by a board of trustees.

Ponsor, who heard arguments for more than two hours, rendered his decision on the consent decree from the bench. He characterized the settlement as a sound and beneficial agreement that will allow immediate action to ease the damage done by the toxic pollution.

"I believe it is time to get on with it," Ponsor said. "This consent decree does guarantee a dawning. To some estimates, the dawn may not be as clear and blue as everyone wants it to be, but it is the end of a nightmare."

-----

© 2000 by MediaNews Group, Inc. and New England Newspapers, Inc

## **PEDA at work on GE site plan**

Tuesday, October 31, 2000

By Bill Carey  
Berkshire Eagle Staff

PITTSFIELD -- Approval of the massive PCB cleanup agreement last Friday frees the Pittsfield Economic Development Authority to begin planning new uses for the 52-acre site that General Electric eventually will turn over to the authority.

It is expected that \$15.3 million GE has agreed to provide PEDA for the brownfields redevelopment will become available this week, upon the receipt of orders from U.S. District Court Judge Michael A. Ponsor. The judge approved the consent decree by which GE will underwrite most of the cost of removing PCBs left from years of manufacturing transformers at its Pittsfield plant.

The redevelopment aspect of the cleanup will cost an estimated \$45 million. Besides the \$15.3 million PEDA will use as a "drawdown" fund to spur development once GE has turned over the site, the company has agreed to demolish all buildings and dispose of the debris at its own expense and pay the city \$1 million a year over 10 years to offset the loss of tax revenue.

Terms of the redevelopment are contained in a Definitive Economic Development Agreement concluded last year. The agreement is a separate document that was conditional on the consent decree being approved.

"Now that we have the consent decree approved and executed, we're hoping to come out of the box quickly," said Jeff Bernstein of the Boston firm Bernstein, Cushner, Kimmel, legal counsel to the city and PEDA on the agreements.

PEDA, created by state statute in January 1999, already has done a good deal of work. Although the consent decree was delayed when parties objecting to the agreement intervened, the authority is ahead of where it expected to be following the approval, said City Council President Thomas E. Hickey Jr., who served as PEDA's interim executive director.

Hickey said the "first cut" of a redevelopment master plan was presented Oct. 10 to the authority's board of directors. The seven-member board will revisit the master plan at its next meeting Nov. 15 and will take it public in around two months.

Public meetings will be scheduled at the Berkshire Athenaeum or at some other appropriate location, Hickey said. "We need to go public with [the master plan] and we plan to do that shortly," he said.

The master plan is not being formulated in a vacuum, and must be coordinated with GE's sampling and remediation activities.



"We have a good idea of what we want to do, but it has to coincide with the cleanup," Hickey said.

Here, too, progress was made prior to the consent decree being approved. For example, Hickey said, the company has initiated work on the first half-mile of the Housatonic River, removed contamination and completed landscaping at the Allendale School and secured approval from the U.S. Environmental Protection Agency for a building demolition landfill off New York Avenue.

GE has submitted to EPA all of the demolition plans for the buildings along East Street, Hickey said.

PEDA's offices in Building 43 at the company's site will be relocated to a former GE Credit Union computer center, probably by the end of November, he said.

The authority also will be looking for a full-time director. Hickey initially served on loan to the authority from General Dynamics, where he is employed as a program engineer. He has worked since April on a part-time, volunteer basis.

Under the Definitive Economic Development Agreement, GE, after the demolition, is to provide at least 350,000 square feet of building foundations, with utility connections, at eight sites. On these foundations, PEDA, aided by the quasi-public MassDevelopment agency, plans to attract new businesses.

But new buildings will not be cropping up overnight.

"People shouldn't expect there's going to be new businesses in there three months from now," Bernstein cautioned. "This is a multiyear process."

Hickey said 22 companies have expressed an interest in either leasing space from PEDA or building at the redevelopment site -- electric bus developer EV Worldwide being one of them. However, some companies have lost interest because of the time delay involved, while others are "on hold."

MassDevelopment, which entered into an agreement with PEDA in July, will provide both project management and real estate expertise. The real estate support will be directed out of the agency's Springfield office.

"We have a person there who is an expert in terms of what the markets are and what they can bear," in addition to the environmental issues businesses face, said Chris Kealey, an agency spokesman.

If MassDevelopment's experience is any guide, optimism may be in order for the redevelopment effort. The agency also managed the redevelopment of Fort Devens, a 4,400-acre former Army base in the communities of Ayer, Harvard and Shirley. The abandoned base now is home to 70 companies and some 4,000 workers, Kealey said.

Of the Pittsfield project, he said, "We're very familiar with the site and what needs to be done to get it going."

## Crucial role secured deal

"When we needed a lion, he was it," declared state Rep. Peter J. Larkin after the settlement was announced. His description of the role played by U.S. Sen. Edward M. Kennedy in the PCB settlement — a tribute included in Larkin's remarks at the Sept. 25 celebration of the agreement — suggested how crucial the senator's role became in keeping the negotiating process alive when both sides seemed too far apart for reconciliation.

That Kennedy attended the celebration in Pittsfield confirmed his commitment to advocating a settlement that would both resuscitate the Berkshire economy and protect public health and the environment. Time and time again, Kennedy used his considerable influence to lobby top officials from both the EPA and GE to re-evaluate their positions when the talks were imperiled.

While maintaining due diligence to advance the Democratic agenda in a Republican-controlled Congress, Kennedy stayed constantly informed through the involvement of his aide Stephen Kerrigan.

The senator's commitment to a negotiated settlement was also encouraged by an informal group of local civic and business leaders who on more than one occasion flew to Washington to meet personally with Kennedy and to impress upon him that the future of Pittsfield and the region was at stake in these negotiations.

There was perhaps no one in Washington better positioned to wield influence in the creation of a precedent-setting settlement than the senior senator from Massachusetts. Kennedy's personal lobbying of EPA administrator Carol Browner and GE chairman John F. Welch brought the EPA and GE back to the bargaining table after the EPA declared the talks had collapsed in April.

Kennedy brought to the talks the broader perspective of the public's best interest. "It's too easy to play the blame game ... You can travel around the country and won't find the success that has been achieved here," he said.



Edward M. Kennedy

## GE chairman OK's a deal

For the better part of two decades, from 1960 until 1980, John F. "Jack" Welch lived and worked in Pittsfield, rapidly working his way up General Electric's corporate ladder in the company's Plastics Division. In 1981, he was named GE's chairman and CEO, the eighth GE chief executive in the company's 102 year history and at 45, the youngest. As

he had done for Plastics, which he converted from a troubled division into one of the most profitable — while personally earning several patents in the development of super-tough materials — Welch commanded General Electric as it became one of the nation's most profitable and powerful

corporations. Because of his Berkshire roots, many Pittsfield residents took it as a slap in the face when GE downsized its operations here, as if a favorite son were maltreating his family. The mothballed factory buildings, the impersonal chain-link fences forbidding trespassing on PCB-contaminated grounds where thousands had once worked, the polluted Housatonic River, all combined to confirm this view.

Ironically, it was certainly Welch who made the PCB settlement possible. According to sources familiar with talks, Welch himself directed his negotiators to "fix" the Pittsfield situation, especially when public outrage about residential pollution and a potential Superfund designation threatened a public relations — if not a financial — disaster. By all accounts, Welch followed the negotiations closely, permitting the company to yield, for instance, on policies such as the reuse of outmoded facilities which it had previously never allowed for fear of exposure to future liability lawsuits.

CEOs of Welch's stature, competence and accomplishments are required, first and foremost, to pursue a corporate agenda of growth and profitability. In this case, however, Welch seems to have determined that the public and private interests coincided. It may well turn out to be one of his shrewdest decisions.



John F. Welch

## Larkin's bill set the stage

In 1996, Rep. Peter J. Larkin, D-Pittsfield, caught the state's attention when he proposed attaching brownfields legislation to the state Rivers Bill. The measure was controversial, since it flew in the face of environmentalists' determination to punish polluters like General Electric. Larkin, however, foresaw that legislation enabling the 245-acre former transformer manufacturing facility to be redeveloped, even if it meant compromising on thorny issues such as liability, could reinvigorate stagnant economic development in his hometown and allow Pittsfield — and the Berkshires — to abandon deep-seated despair over the departure of GE's manufacturing operations, which once employed 13,645 in its heyday.

Larkin's amendment angered environmentalists statewide, since it jeopardized passage of the Rivers Bill. In spite of an impassioned speech proclaiming that Pittsfield needed the jobs a brownfields reclamation could provide, his argument didn't win the day on the rivers cleanup legislation. Instead, the Legislature adopted a measure creating a pilot brownfields program for Pittsfield.

Larkin was undaunted. A close ally of Speaker of the House Thomas Finneran, Larkin made brownfields his central issue, and in 1997 introduced broader legislation that would address cleanup of the state's 8,000 polluted former industrial sites.

Larkin's efforts to address the issues surrounding polluted properties — who pays to clean them up and under what circumstances are polluters or responsible parties no longer liable — had both supporters and critics. But brownfields legislation did pass this past year, and Larkin earned much of the credit for making it a legislative priority.

His campaign bore fruit. Without legislation in place, including the Pittsfield Economic Development Authority that will manage the redevelopment, the settlement might not have included reuse of the GE site.



Peter J. Larkin

## Rep demanded river cleanup

State Rep. Christopher J. Hodgkins, the Democrat from Lee, is never one to mince words. The eight-term representative was one of the first to call for a cleanup of the Housatonic River. For many years his seemed like the only voice.

In 1992, he and George Wislocki, president of the Berkshire Natural Resources Council, founded the Housatonic River Initiative, which adopted Hodgkins' pugnacious advocacy of removing PCBs from the Housatonic and restoring the Berkshire's largest water course to something close to its pristine beauty from Pittsfield south through Lenox, Lee, Stockbridge, Great Barrington and Sheffield at the Connecticut state line.

While not directly involved in the settlement negotiations, Hodgkins played a critical behind-the-scenes role. Deeply suspicious of any claim by GE that it had any real interest in a major effort to remove PCB contamination — skepticism based upon the painfully slow progress in Pittsfield — Hodgkins adamantly insisted that Superfund was the only remedy. He opposed any form of brownfields legislation that appeared to "let GE off the hook," a stance that set him at odds — sometimes bitterly — with his colleague, Rep. Peter Larkin.

When his longtime friend, Pittsfield's Mayor Gerald S. Doyle Jr., seemed to be endorsing a settlement that compromised on river restoration in favor of redevelopment of the GE site, Hodgkins convinced the mayor to take a hard line with GE on the river cleanup. The mayor subsequently declared that while the city was holding out for site redevelopment, it would not sacrifice public health issues.

As a result, the environmental community is for the most part happy with the settlement's river cleanup agreement. Hodgkins' advocacy led to a balanced agreement that includes the previously irreconcilable goals of environmental safeguards and economic development.



Christopher Hodgkins

## **GE submits work plan for dredging Housatonic**

Tuesday, January 26, 1999

**By Theo Stein**  
**Berkshire Eagle Staff**

PITTSFIELD -- GE is proposing to remove more than 10,000 cubic yards of river sediment and bank soils during the cleanup of half a mile of the Housatonic River and its banks this year, according to a consultant's report.

A work plan submitted last week on behalf of the company by Blasland, Bouck & Lee Inc. calls for dredging up to 3 feet of the riverbed for most of the stretch, with a 4-foot removal in one area. In some areas of lower PCB concentrations, the plan calls for a cap to be installed over existing sediments without any prior removal.

GE's initial proposal last summer, reflecting earlier data, called for dredging only 2 feet of the river.

EPA officials declined to comment on the plan until they meet with GE officials, possibly sometime next week.

### **Part of settlement**

The draft plan was submitted as part of the overall PCB settlement worked out among GE, the Environmental Protection Agency, the city and several other state and federal stakeholders last September.

Attorneys for all sides are working to turn the settlement agreement announced in September into a consent decree that will be entered in federal court. That process is expected to be completed later this spring.

Under the settlement agreement, GE will do the work in the half mile of river adjacent to its mothballed transformer plant, one of the most highly contaminated industrial sites in New England. The EPA estimated the half-mile project will cost GE between \$10 million and \$15 million.

The EPA then will clean the next mile and a half of river after first completing a feasibility study, using up to \$33 million of GE's money and \$12 million from Superfund, which is itself funded by taxes on chemical companies.

Even though the deal hasn't been finalized, GE agreed to move ahead with preliminary work last fall. The company began by identifying and plugging up potential sources of future PCB leaks into the river by creating a wall of sheet piling along sections of the riverbank and installing recovery wells over known areas of underground plumes in the first half mile.

## **Latest data**

According to the consultant, the latest figures show that PCBs in the river mud in the half mile between the Newell Street and Lyman Street bridges average 55 parts per million.

That figure excludes material removed during the 1997 excavation of an extremely contaminated hot spot off Building 68, where a PCB tank imploded in 1968. Testing revealed that hot spot PCB concentrations exceeded 55,000 ppm in the river mud and 105,000 ppm in bank soils. More than 10,000 cubic yards eventually were removed. The excavation also led to the discovery of another underground plume of pure PCBs.

Blasland, Bouck & Lee estimated that some 6,000 cubic yards of sediment will be removed during an excavation process that mirrors the hot spot project. Essentially, the river will be diverted by sheet piling driven down its center. One side of the river channel then will be walled off with more sheet piling and divided into work cells. The water in these cells will be pumped out and routed to a portable water treatment facility nearby before it is released back into the river. The sediments will be removed using a mechanical excavator, then stockpiled on the GE site where other contaminated soils are stored.

## **Installation of cap**

After the desired removal depth has been reached, contractors will install a multilayer cap to isolate remaining PCBs so they don't contaminate fish or aquatic insects or dissolve into the water column. Contractors then will switch their attention to the other half of the channel and repeat the process.

Once the dredging and capping work is complete, contractors will reconfigure the formerly channelized river bottom with low dams, emplaced boulders and other designed obstructions to create riffles and pools, enhancing fish habitat.

After the project is completed, Blasland, Bouck & Lee said, PCB levels in the top foot of mud will be less than one part per million.

According to the plan, a maximum 3 feet of bank soils will be excavated as the work proceeds down river. About 4,300 cubic yards of soil will be removed from 6,000 square yards of riverbank, which then will be restored by planting native shrubs and trees.

Blasland, Bouck & Lee said PCB levels in the top foot of riverbank in the first half mile now average 205 ppm. In the 1- to 3-foot depth, the average is 78 ppm. Under state law, anything over 30 ppm in a recreational area is considered an imminent health hazard.

The project is designed to reduce the average PCB concentration to 10 ppm in the top foot and 15 ppm from 1 to 3 feet. Any soil used to restore the banks after excavation, however, will be completely PCB-free.

The high PCB levels in river sediment and bank soils along the heavily populated first two miles of river prompted the EPA to insist on a major removal action as part of any

acceptable settlement package. The EPA said PCB levels in this stretch posed "an imminent and substantial endangerment" to human health.

GE, which does not believe PCBs cause human disease, rejected the EPA health claims. The deadlock threatened to sink the negotiations, the likely result of which would have been a final Superfund designation and a vigorous court challenge promised by GE officials.

Even in the work plan, GE continues to maintain that PCB levels in the river sediments and bank soils of the upper two miles pose no danger to human health or the environment.

### **Cleanup of plant**

The settlement, which the EPA said will cost GE up to \$250 million to implement, also calls for the cleanup and capping of the GE plant before it is turned over to the Pittsfield Economic Development Authority for a model brownfields redevelopment project. As part of the redevelopment, GE will demolish unsuitable buildings and refurbish others. Several interested tenants, including one major employer, have begun discussions with city leaders.

The settlement defers by several years the question of how to clean the so-called lower reaches of the Housatonic from Pittsfield to Great Barrington. The EPA will propose a cleanup plan in the year 2001 or later after using a computer model to estimate PCB exposures following various cleanup scenarios. Under the agreement, GE also would have the right to challenge the EPA's decision in court.

---

**ATTACHMENT E**

**TECHNICAL ASSISTANCE GRANT INFORMATION**

---



---

**ATTACHMENT E.1**

**TECHNICAL ASSISTANCE GRANT INFORMATION FROM EPA**

---

# ATTACHMENT E.1

## TECHNICAL ASSISTANCE GRANT INFORMATION FROM EPA\*

### BACKGROUND INFORMATION

In 1980, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) – otherwise known as “Superfund” – established a trust fund for the cleanup of hazardous waste sites in the United States. The U.S. Environmental Protection Agency (EPA), working together with the states, is responsible for administering the Superfund Program.

EPA believes it is important for communities to be involved in decisions related to nearby Superfund sites. For this reason, community outreach activities are underway at each of the 1,200 sites on the National Priorities List (NPL). The NPL is EPA’s published list of the most serious hazardous waste sites that have been identified as potential threats to the environment.

Decisions about a site cleanup usually are based on a range of technical information such as:

- Studies of site conditions.
- The kinds of wastes present at the site.
- The kinds of technology available for performing necessary cleanup actions.

Congress established the Technical Assistance Grant (TAG) Program in 1986 to help affected communities understand and comment on site-related information, and thus participate in cleanup decisions.

### BASIC PROVISIONS OF THE TAG PROGRAM

- Grants of up to \$50,000 are available to community groups for hiring technical advisors to help the community understand site-related technical information. Additional funding may be available for unusually large or complex sites.

---

\* Source: U.S. Environmental Protection Agency. 1993. “Superfund Technical Assistance Grants (TA PB93-963302.

**TECHNICAL ASSISTANCE GRANT INFORMATION FROM EPA**

- The group must contribute 20% of the total project costs to be supported by TAG funds. This requirement can be met with cash, donated supplies, and volunteered services.
- The group must prepare a plan for using the funds.
- There may be only one TAG award per NPL site.

**Who Is Eligible for a TAG?**

Groups eligible to receive grants under the TAG Program are those whose members may be affected by a release or threatened release of toxic wastes at any facility listed or proposed for listing on the NPL, and where preliminary site work has begun. In general, eligible groups are groups of individuals who live near the site and whose health, economic well-being, or enjoyment of the environment are directly threatened. A group applying for a TAG must be nonprofit and incorporated or working toward incorporation.

Groups not eligible for TAG awards are:

- Potentially responsible parties (people or companies potentially responsible for, or contributing to, the contamination problems at a site).
- Academic institutions.
- Political subdivisions.
- Groups, such as counties or cities, established or supported by government.

**How to Apply for a Grant**

When applying for a TAG, a group must provide information to EPA (or to the state, if it is administering the TAG Program), to determine if specific administrative and management requirements are met.

In general, the group must demonstrate that they are aware of the time commitment, resources, and dedication needed to successfully manage a TAG.

If more than one group applies for the same TAG, they are encouraged to form a coalition to apply for the grant. This helps to ensure that the largest number of people from the community are represented by the group in the event that a TAG is awarded.

## TECHNICAL ASSISTANCE GRANT INFORMATION FROM EPA

## Uses of Technical Assistance Grants

A group awarded a TAG may hire a technical advisor to:

- Review site-related documents.
- Meet with the group to explain technical information.
- Provide assistance in communicating concerns about the site.
- Interpret technical information for the community.
- Participate in site visits, when possible, to gain a better understanding of cleanup activities.

The group may also use TAG funds to hire a person to handle the administrative tasks related to the grant.

The group may **not** use TAG funds to develop new information (for example, to conduct additional sampling) or to underwrite legal actions.

## Choosing a Technical Advisor

When choosing a technical advisor, the group will consider the kind of technical advice required and whether a prospective advisor has the variety of skills necessary to provide that advice. A technical advisor must have:

- Knowledge of hazardous or toxic waste issues and experience working on hazardous waste or toxic waste problems.
- Academic training in relevant scientific fields.
- Experience in making technical presentations and working with community groups.
- Good communication skills.

The group may hire more than one technical advisor to obtain the combination of skills needed, or hire a firm that has experience in all of the required areas.

## Hiring a Technical Advisor

After evaluating its needs and estimating the costs of the services required, the group seeks candidates for the technical advisor position and evaluates any bids that are received.

**TECHNICAL ASSISTANCE GRANT INFORMATION FROM EPA**

Once a group selects an advisor, it develops a contract for signature by both parties. The contract outlines the work and cost involved, the project time frame, and payment provisions. The *Superfund Technical Assistance Grant (TAG) Handbook: Procurement – Using TAG Funds* provides guidelines for selecting and hiring technical advisors. It may be printed directly from the following website:

<http://www.epa.gov/superfund/tools/tag/resource.htm>.

**Managing The TAG**

Groups must routinely record expenditures of grant money. In general, groups must:

- Establish an accounting system and keep appropriate records.
- Submit reimbursement forms to EPA for the money to pay the technical advisor.
- Prepare quarterly progress reports.

The group may decide to hire a grant administrator to handle some or all of the administrative tasks. To ensure that TAG funds are used primarily for the interpretation and communication of site-related technical data, administrative costs may not exceed 20% of the total project costs.

**Additional Information**

The EPA Regional Office is ready to answer any questions regarding the application process or any aspect of the TAG Program. A copy of the *Superfund TAG Handbook: The Application Forms with Instructions* is available free of charge by contacting the Superfund Office within each state. It may be printed directly from the following website:

<http://www.epa.gov/superfund/tools/tag/resource.htm>.

Citizens who have questions about the Technical Assistance Grant program are encouraged to contact either the Community Involvement Coordinator Angela Bonarrigo, (617) 918-1034 or Mike McGagh, (617) 918-1428, the TAG Coordinator, at the U.S. Environmental Protection Agency.

---

**ATTACHMENT E.2**

**TECHNICAL ASSISTANCE GRANT (TAG)  
GUIDANCE AND APPLICATION PACKAGE-MDEP**

---



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

JANE SWIFT  
Governor

BOB DURAND  
Secretary

LAUREN A. LISS  
Commissioner


**BUREAU OF WASTE SITE CLEANUP**

**TECHNICAL ASSISTANCE GRANT (TAG)  
GUIDANCE AND APPLICATION PACKAGE**

**Fiscal Year 2002**

This information is available in alternate format by calling our ADA Coordinator at (617) 574-6872.

DEP on the World Wide Web: <http://www.state.ma.us/dep>

 Printed on Recycled Paper



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

JANE SWIFT  
Governor

BOB DURAND  
Secretary

LAUREN A. LISS  
Commissioner

October 15, 2001

Dear Applicant:

The Department is pleased to announce its seventh funding round for the Technical Assistance Grant (TAG) Program. This is an exciting opportunity for community groups and municipalities to become more involved in response actions at waste sites that they are concerned about.

Over the last several years the Department has awarded eighty Technical Assistance Grants for a variety of projects conducted by municipalities, citizen groups and environmental groups. These organizations have used their Technical Assistance Grants to hire experts to help them better understand response actions occurring at a waste site. In addition, groups have developed many ways to share this knowledge to increase public involvement in response actions. Technical Assistance Grants have funded projects to develop geographic information systems (GIS) databases, educational curriculum projects, and World Wide Web sites. Other Technical Assistance Grants have addressed site information needs by funding public forums and workshops, newsletters and fact sheets, and video productions. So, while the program guidelines provide a framework, your creative ideas for a Technical Assistance Grant project can address the unique needs of your group.

You will need to gather site information from the Department's files to complete the application, but all other Technical Assistance Grant program information is included in this package. We encourage you to apply and we look forward to working with you to provide a better understanding of response actions at waste sites. If you have any questions, please contact Patti Mullan at (617) 556-1018.

Sincerely,

Deirdre C. Menoyo, Assistant Commissioner  
Bureau of Waste Site Cleanup

This information is available in alternate format by calling our ADA Coordinator at (617) 574-6872.

DEP on the World Wide Web: <http://www.state.ma.us/dep>

Printed on Recycled Paper



# TABLE OF CONTENTS

I.	TAG Guidance and Program Information.....	2
A.	Fiscal Year 2002 Funding Round Schedule.....	3
B.	TAG Program Fact Sheet.....	4
C.	Eligibility Issues.....	8
	- Eligible Sites	
	- Ineligible Sites	
	- Eligible Applicants	
	- Ineligible Applicants	
	- Multiple TAGs	
D.	TAG Application Guidelines.....	10
II.	Application Package.....	15
A.	Letter of Intent	
B.	Application	

## **I. TAG Guidance and Program Information**

## **A. Fiscal Year 2002 (FY02) Funding Round Schedule**

A Massachusetts Environmental Monitor notice will be published on or about **October 19, 2001** to announce the availability of applications for the FY02 TAG Funding Round. Applications will be available at the DEP regional service centers, the Boston office, and our Web site.

To be considered in the FY02 Funding Round, a **LETTER OF INTENT**, as described in this Guidance Package, must be received at DEP (Boston) by the close of business on Monday, **November 19, 2001**; and a full **APPLICATION** must be received at DEP (Boston) by the close of business on Tuesday, **January 15, 2002**.

DEP will review applications for completeness and eligibility during **January and February 2002**. In **March** applications will be evaluated and in **April 2002** the Preliminary Application Priority List will be established.

DEP expects to announce grant recipients in a **May 2002** issue of the Environmental Monitor. Scoping sessions for grant agreements (i.e., contracts) will also begin in **May**.

### **How To Obtain An Application Package**

Application packages are available from the service centers in DEP's offices, and can be downloaded from DEP's web site at: <http://www.state.ma.us/dep/bwsc/pipubs.htm>.

DEP Northeast Region:	205 Lowell Street Wilmington, MA 01887	Telephone: 978/661-7600
DEP Southeast Region:	20 Riverside Drive Lakeville, MA 02347	Telephone: 508/946-2700
DEP Central Region:	627 Main Street Worcester, MA 01608	Telephone: 508/792-7650
DEP Western Region:	436 Dwight Street Suite 402 Springfield, MA 01103	Telephone: 413/784-1100
DEP Boston Office:	BWSC, 7th floor One Winter Street Boston, MA 02108	Telephone: 617/556-1018 Fax: 617/292-5530

**Please submit completed applications to the Boston Office by mail or fax (must be followed-up with an original)**

**Attn:** Technical Assistance Grant Administrator

## **B. TAG Program Fact Sheet**

Assessing and cleaning up sites where oil or hazardous materials have been released into the environment often requires developing complex technical and scientific information. Difficulties in understanding and evaluating this information can, in turn, make it difficult for citizens to participate in planning response actions for disposal sites.

Public participation is an essential part of the Commonwealth's Waste Site Cleanup Program. The Department of Environmental Protection (DEP) has established a **Technical Assistance Grant Program** to assist citizens in understanding and using the information that becomes the basis for cleanup decisions, and to promote citizen involvement in planning response actions. These grants are authorized by Section 14(c) of Massachusetts General Law Chapter 21E (The Massachusetts Superfund Law). Regulations establishing how the grant program will be implemented are in the Massachusetts Contingency Plan (MCP), Subpart N (310 CMR 40.1450).

**WHAT CAN TAGs BE USED FOR?** TAGs can be used to:

- provide expert advice and technical assistance to citizens about assessing and cleaning up a particular site
- promote access to and use of information that has already been developed for a disposal site
- provide information to citizens about issues of public concern related to specific disposal sites

**HOW MUCH MONEY IS AVAILABLE?** DEP anticipates awarding up to \$100,000 in this funding round (subject to availability of funds). Only one grant will be provided for any specific disposal site in each funding round. The Department may grant additional funds for TAG applications that cover:

- more than two related disposal sites or a disposal site that includes more than two properties
- a single disposal site that has affected more than two municipalities and/or
- a single disposal site that has affected more than two environmental media

**WHAT ARE THE GENERAL RULES FOR SPENDING A TAG?** A TAG must be spent within a specific period of time, which is two years at most. TAGs reimburse Grantees for expenses incurred in obtaining technical assistance after the grant has been awarded.

**WHO MAY APPLY?** Groups of individuals who may be affected by oil or hazardous materials from a disposal site(s) can apply for a Technical Assistance Grant. Types of eligible groups are:

- a group of individuals, such as a local environmental group or neighborhood association
- a municipality or a municipal agency (a Town Board)
- a district or other political body that owns or operates a public water supply system

**Ineligible Groups** are those that:

- unreasonably restrict the meaningful participation and involvement of individuals who may be affected by oil or hazardous materials from a disposal site
- do not represent individuals who are or may be affected by the site or

- are liable, potentially liable, or are performing a response action at a disposal site for which the grant is to be used (see section C, Eligibility Issues)

**WHAT SITES ARE ELIGIBLE?** Eligible sites are those that:

- have been classified as Tier I and Tier II under the MCP
- are on the National Priority List (NPL) or
- are deemed Adequately Regulated by the Department (see section C, Eligibility Issues)

**Ineligible sites** are those that are listed as:

- "Locations To Be Investigated", "Unclassified Confirmed Disposal Sites", and "Non-Priority (Without A Waiver)", unless an LSP Evaluation Opinion classifying them as Tier I or Tier II is received by the Department by the Letter of Intent deadline
- Tier IA sites that have a Class A or B Response Action Outcome (RAO) Statement *approved* by the Department
- Tier IB, Tier IC and Tier II sites for which a Class A or B RAO Statement has been *submitted* to the Department, and
- sites for which a Waiver Completion Statement has been submitted to the Department

**WHAT ACTIVITIES ARE ELIGIBLE FOR FUNDING?** Eligible activities include, but are not limited to, the following:

- interpreting technical information and analyses that have been prepared (or will be prepared) by the person conducting the response action at a site
- observing assessment, sampling or response action activities<sup>1</sup>
- analyzing split samples
- conducting surveys to gather existing health information through interviews or questionnaires from individuals who may be affected by the disposal site
- providing legal advice, restricted to the public's involvement in response actions
- developing public education activities focusing on the site of concern and the affected community
- providing a reasonable share of funding for voluntary mediation concerning response actions for the disposal site

**Activities** that are **not eligible** for funding are:

- developing new environmental data
- developing new medical data
- promoting organizational development or membership building, except for activities that are incidental to carrying out eligible activities
- initiating litigation or any other adversarial legal proceeding
- conducting partisan political activity or any activity to further the election or defeat of an initiative petition or a candidate for public office
- taking or arranging for any response actions at the disposal site.

---

<sup>1</sup> If grant activities require the presence of a TAG-funded consultant or representative of the Grantee at the site, grantees must first obtain approval from the property owner and the party conducting cleanup actions. Grant activities must comply with any existing health and safety plans for the site. If environmental samples will be analyzed, the same analytic procedures used by the party conducting cleanup actions must be used.

The evaluation criteria in Subpart N of the MCP give more weight to projects that will directly improve public participation in planning for response actions at a disposal site, educate the affected public about the site and its cleanup, and address public concerns about the impacts of the site on health, safety, public welfare, and the environment.

**WHAT IS THE PROCESS FOR APPLYING FOR A GRANT?** DEP wants TAGs to serve as many people who are or may be affected by a disposal site as possible. To encourage participation in developing TAG proposals, the application process has two parts:

First is a Letter of Intent (LOI) that identifies the group applying, the disposal site(s), and the project(s) for which the grant would be used and the types of consultants to be employed.

Next DEP publishes a list in the Environmental Monitor of all the Letters of Intent received. This notice includes the names of contacts for the groups submitting applications, so that people who may be affected by a disposal site can obtain information about the proposed technical assistance project and become involved if they wish. In addition, anyone interested may submit comments about the Letter of Intent to DEP for consideration as the grant applications are reviewed. A deadline for comments to be submitted to the applicant group and to DEP is identified in the MEPA Notice.

Second is an application, which requests more detailed information about:

- the group applying, how it represents people who are or may be affected by the disposal site(s)
- the group's procedures for managing and accounting for grant expenditures
- any new information about the disposal site(s) and its classification that has become available since the Letter of Intent was submitted, such as a new release discovered or a site has been classified according to the 1993 MCP
- a detailed description of proposed activities or projects
- the qualifications of consultants and other experts who would be employed with grant funds<sup>2</sup>.

**HOW WILL DEP SELECT PROJECTS FOR FUNDING?** DEP awards grants on the basis of a competitive process. DEP reviews each application to determine completeness and applicant eligibility. Applicants will be notified if their applications are incomplete and be given a specific time period in which additional information must be submitted. Applications from eligible groups that are judged to be complete will then be evaluated and ranked by a DEP Bureau of Waste Site Cleanup review panel based on the criteria established in Subpart N of the MCP.

Once the evaluation is complete, DEP will provide all applicants whose applications were evaluated with a Preliminary Application Priority Ranking List and an opportunity to review their evaluations. Applicants who are not selected for funding in this round will have an opportunity to

---

<sup>2</sup> DEP encourages the use of Minority Business Enterprises (MBE) for supplies and contracts for services. To assist in this regard, DEP will mail Letter of Intent applicants a list of MBE vendors who may provide the types of services proposed by the group in their application.

clarify information in their application that would affect their application rating. DEP will review the additional information, and may revise the Priority Ranking List as a result. Then DEP publishes a Final Grant Funding Priority Ranking List in the Environmental Monitor, which identifies projects selected for funding, and mails a copy to the contact person for each applicant group.

Each successful applicant must sign a grant agreement with DEP. This agreement formally offers the grant to the group and establishes specific terms and conditions for conducting the project. By signing the grant agreement, the group agrees to conduct the project in accordance with the terms and conditions. At the time the grant agreement is signed, the group must exist as a legal entity (see section C, Eligibility Issues) with the ability to receive, disburse, and be responsible for grant funds.

## **MANAGING A TAG**

**Documentation and Reports:** Grantees must submit invoices to DEP requesting reimbursement for their expenses. In addition, each grantee must also provide DEP with quarterly reports on activities and expenses. A final report describing funds spent, project results and services provided must be submitted when the grant agreement expires. The Department may withhold a portion of the grant funds until required reports have been received from the grantee.

**Administrative Costs:** Grant funds may be used to hire a consultant(s) and/or employee(s) with appropriate skills to administer the grant. However, to ensure that the limited grant funds are used primarily for providing expert advice and technical assistance about the assessment and cleanup of a disposal site(s), administrative costs, such as purchase of pens and paper, telephone bills, postage (etc.) cannot exceed 20 percent of the award.

**Contract Duration:** Grantees are asked to specify a timeframe for the activities proposed in their application. Grantees will be contracted for one year, with the possibility of a one-year extension if the project cannot be completed within the original contract. The Department requests projects to be budgeted for no more than a two-year period.

Grantees are not prohibited from applying for new grant funds during a TAG project. Instead groups are encouraged to apply annually if the cleanup is proceeding without delay and there is interest in continuing their TAG project.

## C. Eligibility Issues

### Eligible Sites

The Massachusetts Contingency Plan (MCP) requires that sites needing comprehensive response actions must be evaluated using a quantitative ranking system and be classified as either Tier I (A, B, or C) or Tier II. Any site that has been classified as Tier I or Tier II is eligible for a TAG and sites that tier classify during the application period are also eligible. Disposal sites that are deemed **adequately regulated** by the Department are eligible for TAG funds. These are sites where response actions are being regulated by the Department under another program or by another governmental agency such as the Federal Superfund National Priority List (NPL) sites, Corrective Actions performed pursuant to HSWA, Federal RCRA authorized state sites, or Solid Waste Management Facilities (landfills).

Information about the classification of individual sites is available from the Service Center in the appropriate DEP Regional Office.

“**Brownfields**” sites are generally abandoned or underused industrial and/or commercial properties that have been contaminated with oil or hazardous materials, and where there is potential interest in redevelopment or reuse. “Brownfields” sites that meet other eligibility requirements are eligible for TAGs if the project focuses on cleanup. At a “brownfields” site, a TAG could be used to hire an LSP or consultant to review a risk assessment or cleanup plan associated with the MCP. But TAG funds *could not be used* to review and comment on economic redevelopment plans, or environmental reviews not associated with the site assessment and cleanup plans and the MCP. For example, review of hazardous waste management plans, Environmental Impact Reports, or Environmental Notification Forms are not eligible activities for a TAG unless these reports are directly related to the site assessment and cleanup plans.

### Ineligible Sites

Sites that are **not eligible for TAGs** are sites where cleanup has been completed: Tier IA sites for which a Class A or B Response Action Outcome (RAO) Statement has been approved by the Department; Tier IB, Tier IC and Tier II sites for which a Class A or Class B RAO Statement has been submitted to the Department; and sites for which a Waiver Completion Statement has been submitted to the Department. (However, if an applicant has an ongoing TAG project, and the site receives an RAO during a TAG contract period, the funds may be used to review and comment on the RAO submittal.)

### Eligible Applicants

Any group of individuals, municipality or municipal agency, or district or other body politic that owns or operates a public water supply system may apply for a TAG. However, the applicant must exist as a **legal entity**, with legal authority to receive, disburse, and be responsible for funds at the time the grant is awarded. The legal entity process is coordinated by the Massachusetts Secretary of State’s Office (617/727-2850), and requires a group to establish a Board of Directors and by-laws. The Toxics Action Center (617/292-4821) has developed a guide to assist groups with this process. Since groups must already be a legal entity to receive a grant, the TAG does not provide



reimbursement for this process. However, TAG funds can be used for legal expenses and application fees if a group decides to pursue non-profit status once it has become a legal entity.

The TAG program also requires that the group receiving a TAG must be an “**affected party**” (comprised of people who have been affected by the site), and that the Department’s contract be written with the group that submits the application. Therefore, the group that signs the

application is the group that receives payment. These conditions do not allow the group to have a “**fiscal agent**” receive and disburse the grant funds.

In general, **municipalities** (or their boards or agencies) are eligible for TAGs, although in some instances they may not be eligible for TAG funding. A municipality is not eligible for a TAG for a site that it owns. In this case, the municipality is considered to be a responsible party or potentially responsible party. Also, a municipality that is conducting or funding any type of response actions at a site that it does not own is ineligible for a TAG for that site, since in this case it is acting as an “Other Person” conducting response actions [310 CMR 40.1453(4)]. For example, a municipality conducting preliminary assessment activities through a Brownfields grant or loan program, would be ineligible to apply for a TAG for that site.

With these restrictions in mind, municipalities can:

- apply for a TAG covering one or more sites located in that community. Its application could explain how a board or agency will work with the community group that has focused on the site(s), or with groups established for each of several sites (e.g., sites that may affect two or more neighborhoods). In this case, the municipality would submit the application, and receive and manage the TAG; or
- participate in a project for which a citizens group applies for, and receives and manages the TAG.

Municipalities considering applying for a TAG covering more than one site should note that the TAG regulations allow only one grant to be made to an entity (a municipality, citizen group or public water district) in a funding round. Also, note that only one grant can be made for a particular site in a funding round. Both a town board and a citizen group may submit applications, however, only the one ranked highest by DEP’s evaluators’ can/may be funded.

Groups representing people whose property has been contaminated by a release starting on another property (**downgradient owners**) are still considered eligible applicants for a TAG. For example if members of a group of homeowners with contaminated wells from an upgradient source have installed water filters in their homes, they are still eligible for TAG funding although they may be considered to be performing response actions (see MGLc. 21E sec. 5D for further clarification).

### **Ineligible Applicants**

Responsible Parties (**RP**s) are people who are liable under MGL c. 21E to the Commonwealth, or to any other person, for cleanup costs or natural resource damages, and damages to other parties, such as neighbors. Potentially Responsible Parties (**PRP**s) are people potentially liable pursuant

to MGL c. 21E. Other Persons (**OPs**) are people who undertake response actions that are not RPs or PRPs. Sometimes a municipal board (or other interested party) may do some sampling or undertake some response actions at a site although they are not the RP or PRP. In this case the board would be considered an OP, and be ineligible.

### **Multiple TAGs**

Groups may receive another TAG in a subsequent funding round, to continue work started with an initial grant, or to conduct a new project. Groups should keep in mind that their experience managing the previous TAG will be considered when evaluating an application for another TAG. The only regulatory restriction on groups applying for **multiple TAGs** is that only one TAG can be awarded to a group per funding round. Also, any balance remaining at the end of a contract period will revert back to the Department if a group will be receiving a TAG in the next funding round.

Also, if a site previously had a TAG project, the applicant must identify when the TAG project was/will be complete and how the current proposal differs from the previous TAG project.

## **D. TAG Application Guidelines**

The TAG program uses a 2-step process, a Letter of Intent and an Application, to evaluate proposals for funding in each round. The Letter of Intent (LOI) is used to *screen* applicants for compliance with the eligibility requirements of the program. Aside from eligibility, the LOI information is *not* considered when evaluating the proposals for specific projects; the LOI provides only a general sense of the overall project. The application is the critical piece for evaluation and is where the proposed project is described in detail. Site information necessary to complete the application should be obtained by reviewing DEP regional office files.

These guidelines are intended to provide applicants with a better understanding of the types of information that reviewers will need to evaluate applications. Applications are evaluated strictly on the information contained in the application. The applications to be funded are those that best address the *program goals* of assisting citizens in understanding and using information that becomes the basis for cleanup decisions, and of promoting citizen involvement in planning response actions.

The TAG application has been designed to address the evaluation criteria stated in section 40.1457(3) of the Massachusetts Contingency Plan (MCP):

- (a) **Severity and complexity of the disposal site, relative to its impact on health, safety, public welfare and the environment (Maximum score -- 12 points).**
- (b) **Relationship of proposed project to the impacts of the disposal site on health, safety, public welfare and the environment (Maximum score -- 6 points).**
- (c) **Relevance of the disposal site for local economic development efforts, as determined by the disposal site's location in an area designated by the Massachusetts Economic Assistance Coordinating Council as an "Economic Target Area" pursuant to MGL c. 23A, §§ 3A-3F (Maximum score -- 3 points)**

- (d) **Potential of proposed project to foster increased public awareness of disposal site response actions and issues, and increased public participation in response actions at the disposal site (Maximum score -- 12 points)**
- (e) **Applicant's demonstrated capacity to communicate with and involve individuals affected by the disposal site (Maximum score -- 5 points).**
- (f) **Applicant's demonstrated capacity to implement the proposed project (Maximum score -- 5 points).**
- (g) **Overall quality of applicant's proposal, including feasibility of meeting identified goals, feasibility of completing project within work schedule and budget, and appropriateness of proposed types of consultants to be employed (Maximum score -- 18 points).**

Applications are considered acceptable **only** if the following conditions are met: 1) applications must be completed using standard one-inch margins and font size 10 or larger; 2) application questions must be included with the responses; and 3) no application can exceed the 10-page maximum. Applications will be returned and not considered until these conditions are met.

The following guidelines correspond to the format of the application, and should be consulted as you answer each section. For example, when completing the **GENERAL INFORMATION** section of the application, please consult the same section of these guidelines for information to help you best answer these questions. The evaluation criteria the section tries to address will be noted in parentheses under each section heading to assist with your responses.

**GENERAL INFORMATION**

(eligibility; evaluation criteria a)

The information requested in this section is basic information that identifies the applicant group, a point of contact, and the site(s) for which a TAG is being requested.

**A. INFORMATION ABOUT THE APPLICANT GROUP**

(eligibility; criteria d, e)

This section provides information on the composition of your group and how your group operates. If your group has conducted any sampling or other cleanup actions at the site you may be considered a responsible party (RP), potentially responsible party (PRP) or “other person” (OP) conducting response actions at the site, and would be ineligible to apply for a TAG for that site. Please refer to Section C, Eligibility Issues, for more details.

**B. THE PROPOSED PROJECT, BUDGET AND INFORMATION ABOUT THE SITE**

(evaluation criteria b, d, e, g)

This section requests information regarding the proposed project and how the project relates to the disposal site cleanup actions, as well as the detailed project budget. Responses should answer the question of what your group hopes to accomplish with a TAG, it’s goal. This section requires an understanding of the differences between *disposal site response actions* (Immediate Response

Action, Release Abatement Measure, Phase activities), *disposal site issues* (groundwater contamination, air emissions, loss of wetlands, health issues), and *community concerns* (public safety, or elevated incidences of disease in an area). Please identify the information sources that were used to provide information regarding site response actions. For example, site cleanup phase reports from the DEP files, conversations with the project manager or LSP. Keep in mind that although there may not be constant site activity the site cleanup may still be progressing in a timely manner.

When developing your proposal, please focus on the outreach activities and technical and educational products your group feels it can realistically accomplish with the TAG. Please do not create a “laundry list” of possible activities. All activities and products stated in the proposal need to be accounted for, and your group may not receive favorable reviews if its activities seem too ambitious for your budget and schedule.

Your group does not have to be designated a Public Involvement Plan (PIP) site to receive TAG funding, nor is TAG funding necessary to attain PIP status. A PIP designation indicates an involved group, however, public involvement and outreach activities should still be detailed in the application.

If you are a **municipal entity**, please explain how the TAG project will allow for technical assistance and outreach activities that *extend beyond* what you as a board/commission could or would *normally provide*. For example, will general information meetings be held in addition to regularly scheduled board/commission meetings; is cable television coverage a proven way to reach your community; will the technical consultant be available to the community or just the board/commission? Also discuss the community interest in the site. Has the community requested additional information that the board/commission does not provide? Does the board/commission require additional technical expertise to better understand the site cleanup activities? Municipal entities should also describe their current role in the cleanup activity and how the TAG will enable them to enhance the communities understanding of information and the availability of this information.

If any aspect of the project relies on involvement of other groups (schools, local boards, etc.), please explain how these groups have been made aware of the proposed project, and their commitment to the project.

#### QUESTION SPECIFIC GUIDANCE:

Question 4 asks the applicant to detail all costs associated with the proposed project and develop a budget table (see Attachment 1). This question provides an outline of the information needed to properly present your budget. In this section your group should provide a detailed description of how TAG funds will be spent to complete the proposed project. Please note that equipment purchases greater than \$50.00 are not allowed, however, equipment leasing is acceptable.

The following outline provides additional details to assist your group in writing comprehensive responses, please provide as much detail as possible when addressing these questions:

- a) identify what the technical consultants/employees will do; list specific tasks;
- b) list the specific reports to be reviewed, number of split samples to be taken, newsletters or updates to be produced, workshops to be held, meetings to be attended, etc.;
- c) list the expected number of hours that the consultants anticipate spending to review reports or conduct described activities;
- d) list the expected hourly rate for consultants and cost for sample analyses;
- e) **identify how much money is being requested.** If more than \$10,000 is being requested, you must provide a second budget identifying the additional activities and workproducts that would be conducted or produced; please include any adjustments to in-kind services if appropriate;
- f) identify administrative costs (include estimates for copying, postage, mileage, newsletter publications, equipment leasing, software, website fees, etc.); and
- g) identify in-kind contributions including any activities or services necessary to complete your project for which the group will not seek reimbursement under the TAG. Any other sources of funding should also be identified if they will be used to complete the project. This information is necessary to explain any shortfall in the budget that you present and the TAG amount being requested.

A timeframe or schedule is also necessary to demonstrate the flow of the project. Please complete Attachment 2 with a list of the projected activities.

Question 7 asks the applicant to distinguish between the site's "direct" versus "potential" impacts to health, safety and welfare of individuals and the community. Direct impacts are those that are *currently* affecting individuals and the community. An example is contamination above the maximum contaminant levels (mcl's) on public or residential property, fugitive dust in residential areas, and active water supplies that are contaminated. Potential impacts are those that *may* affect community health, safety and welfare at some later point in time. An example is a plume that may affect a backup water supply if the well starts pumping, or a fenced site that may have trespassers, or water supply wells in the vicinity of a waste site that have not yet been impacted.

Question 11 focuses on the proposed project's ability to generate an increased *awareness* of site activities and an increased *participation* in site response actions. The following issues should be addressed as part of your response:

- How the proposed project (a) will encourage and/or expand participation by the public in reviewing and planning response actions at the disposal site(s); and (b) keep them involved and interested in the project. Increased participation relies on opportunities for interested parties to interact with your group.
  
- What steps the group has taken or will it take to expand the involvement of individuals directly affected by the site (abutters, downgradient property owners) and other members who live in the community; and (b) how successful these efforts have been.

It is important for applicants to propose pro-active outreach opportunities for community Involvement (participation in meetings, workshops, question and answer sessions, etc.), as well as to provide for more passive forms of information sharing (factsheets, newsletters, etc.) to increase awareness and participation.

The group's ability to communicate with and involve others in its project and the disposal site issues is key to a successful TAG project. Responses to questions 12 and 13 should address the following issues:

- What past success has the group had in organizing meetings or other events for interested parties to develop a better understanding of the site response actions and/or issues. Examples of successful activities could be large audiences at site-related meetings, good response to a radio call in show, or a hotline that receives many calls.
- What past steps has the group taken or does it plan to take to actively promote and maintain open communication and a productive working relationship among residents, business leaders, the party conducting cleanup actions, and government regulators about site cleanup activities? Examples of these types of activities could include holding meetings at a time and place convenient and accessible to the community, providing childcare at meetings, and providing translators.

### **C. GRANT MANAGEMENT AND GRANT EXPERIENCE**

(evaluation criteria f, g )

Previous grant experience provides a measure of your group's demonstrated ability to communicate with and involve others in a project, as well as provides proven grant management experience. Information regarding your group's past involvement working toward a common goal, and working within a budget to develop a group workproduct is pertinent here. Groups with no past grant experience will be evaluated solely on the project that is being proposed. This lack of experience should not adversely affect a well-written proposal.

Although DEP TAG files will be available to the evaluators, previous TAG recipients must respond to all the application questions related to their past TAGs, or the application will be considered incomplete. Past performance of previous TAG recipients will be factored into this criteria also.

## **II. APPLICATION PACKAGE**

Note: Applications are considered acceptable **only** if the following conditions are met:

- 1) Applications must be completed using standard one-inch margins and font size 10 or larger;
- 2) Application questions must be included with the responses; and
- 3) Letters of Intent do not exceed 2 pages in length, and full applications do not exceed the 10-page maximum.

Applications will be returned and not considered until these conditions are met.

BUREAU OF WASTE SITE CLEANUP

**FY02 TECHNICAL ASSISTANCE GRANT PROGRAM  
LETTER OF INTENT**

Statement of Interest and Preliminary Description of Project

**INSTRUCTIONS**

Please read each question in the Letter of Intent carefully. If questions ask for multiple pieces of information, responses should answer the question in its entirety. Letters of Intent are to be completed following the outline provided. Letters of Intent that are received without responses to each question will be considered **incomplete**.

Completed Letters of Intent should not exceed 2 pages and should not include attachments unless explicitly requested. Please submit one (1) original and ten (10) copies of your Letter to: Technical Assistance Grant Coordinator, Bureau of Waste Site Cleanup, One Winter Street, Boston, MA 02108. All Letters of Intent must be received by the Department by close of business on **November 19, 2001**.

Please include the following information in your Letter of Intent:

**General Information**

- Name of Group
- Name of Group Contact
- Address
- Telephone #
- FAX # (if available) E-Mail address (if available)
- Site Name(s)
- Site Address(es)
- DEP Site Identification Number/Release Tracking Number assigned to the site(s) which you intend to apply for a TAG
- DEP Tier Classification for each disposal site that you intend to apply for a TAG
- Municipality(ies) in which site(s) is located



### **Information About the Applicant Group**

- 1) Indicate which category best describes your group:
  - a) a group of individuals who have been or may be affected by oil and/or hazardous material from the site(s) identified above;
  - b) an agency or board of a municipality that has been or may be affected by oil and/or hazardous material from the site(s) identified above; and/or
  - c) a district or other political body that owns or operates a public water supply system that has been or may be affected by oil and or hazardous material from the site(s) identified above.
  
- 2) Indicate whether any of the following applies to any members of your group:
  - a) any members of your group are liable or potentially liable responsible parties (PRPs) as defined by C.21E §5;
  - b) any members of your group have financial involvement with a PRP for the site(s) listed above (an employee or stockholder); and/or
  - c) any members of your group will be acting as an Other Person (OP) taking a response action at a disposal site.

### **Information About the Site and Proposed Project**

- 3) Briefly describe the proposed project including, but not limited to, overall goal(s), issues to be addressed, activities to be conducted, products to be produced, and a projected schedule for completing the project. Also identify your communication and outreach plans for the TAG project.
  
- 4) Describe the types of consultants to be hired for technical assistance and how their particular expertise is needed for the project.
  
- 5) Describe your understanding of the actual or potential impacts of the disposal site(s) on health, safety, public welfare, and environment (such as, has the site affected public or private water supplies, whether there are contaminated air emissions, if there is potential for direct contact with contaminated soil, etc.), and how your group is affected.

## BUREAU OF WASTE SITE CLEANUP

### FY02 TECHNICAL ASSISTANCE GRANT APPLICATION

#### INSTRUCTIONS

Please read each question in the application carefully. Questions should be repeated with responses following in sequence. If a question asks for multiple pieces of information, responses should address the question in its entirety. Applications that are received without responses to each question will be considered *incomplete*.

Completed applications must not exceed 10 pages in length (excluding the application itself), and must not include attachments unless explicitly requested. Please repeat each question when providing responses, number all pages, use standard 1" margins, and a font size 10 or larger. All applications must be signed/certified and received by close of business on **January 15, 2002**. Submit one (1) original and ten (10) copies of the completed application to: TAG Administrator, Bureau of Waste Site Cleanup, One Winter Street, Boston, MA 02108.

#### GENERAL INFORMATION (answer below)

- Name of Group:
- Name of Group Contact:
- Address:
- Telephone #:                      FAX #:                      E-Mail address:
- DEP Site Name, Identification Number/Release Tracking Number, and DEP Tier Classification for each disposal site that you intend to apply for a TAG:
- Site is located in in an area designated by the Massachusetts Economic Assistance Coordinating Council as an "Economic Target Area" pursuant to MGL c. 23A, §§ 3A-3F (please circle one).  
YES    NO

## **A. INFORMATION ABOUT THE APPLICANT GROUP**

- 1) Describe both the number and types of individuals and community organizations in your group, and how these individuals and groups are *directly* affected by the site.
- 2) Does your group have any restrictions on membership? Are group meetings open to the public? If your group has bylaws, please submit one copy of these with this application.
- 3) How will the individuals or groups *directly* affected by the site be *involved* in this project? Are there any individuals or groups that are directly or potentially affected by the site that are not represented by your group? If so, please describe your efforts to *involve* these individuals and groups.

## **B. THE PROPOSED PROJECT, BUDGET AND INFORMATION ABOUT THE SITE**

- 1) Describe your project, its goal, and how they will be achieved.
- 2) Describe the physical layout of the disposal site.
- 3) Include a site locus plan and a site map, no larger than 11"x 17".
- 4) Using the attached table (Attachment 1) provide a project budget itemized by task. Include information about:
  - a) tasks to be completed by consultants and/or employees;
  - b) the specific technical and educational workproducts to be produced and outreach activities to be conducted;
  - c) anticipated hours to review reports or to conduct described activities;
  - d) anticipated hourly rate for consultants and costs for sample analyses;
  - e) total amount requested for the project (if you are requesting more than \$10,000, please submit a second budget identifying the additional activities and workproducts that would be conducted or produced);
  - f) administrative costs; and
  - g) in-kind contributions and any additional funding sources

Also complete the attached timeline/schedule for your project (Attachment 2).

- 5) Identify the types of consultants to be hired and explain why the proposed types of consultants are appropriate.
- 6) Describe how the site impacts the *environment*, and identify how this information was obtained.
- 7) Describe how the disposal site *directly* impacts the *health and safety of individuals and the community* and how these impacts were determined.
- 8) Describe the *direct* relationship between your project and the impacts of the site on health, safety, public welfare, and the environment.
- 9) Describe:
  - a) the current or planned *response actions* at the site,

- b) the timeframe for these cleanup actions , and
  - c) how this information was obtained.
- 10) Describe the *site issues* your project proposes to address.
  - 11) Describe the types of outreach/educational activities you are planning and how these will:
    - a) increase public *awareness* of disposal site *response actions*;
    - b) increase public *awareness* of disposal *site issues*;
    - c) increase public *participation* in *response actions*
  - 12) Explain how your group has demonstrated an ability to *communicate* with individuals affected by the disposal site. Provide examples of past successes.
  - 13) Explain how your group has demonstrated an ability to *involve* individuals affected by the disposal site. Provide examples of past successes.

### **C. GRANT MANAGEMENT AND GRANT EXPERIENCE\***

- 1) Does your group have any experience conducting activities similar to those proposed in this application? If yes, please describe what your group has done.
- 2) If a previous project (TAG or other) was not completed within the time frame indicated in your grant agreement/contract, please explain why?
- 3) If your group has received TAG funding in the past, please explain how your current proposal differs from your past TAG project.
- 4) What procedures does your group plan to use for record keeping and financial accountability related to the grant?

\*NOTE: Past TAG recipients' files will be made available to the evaluation panel upon request.

I certify that all information in this application is true to the best of my knowledge.

SIGNATURE OF AUTHORIZED REPRESENTATIVE  
OF APPLICANT GROUP: \_\_\_\_\_

NAME OF AUTHORIZED REPRESENTATIVE  
OF APPLICANT GROUP: \_\_\_\_\_

(please print or type)

TITLE: \_\_\_\_\_

TELEPHONE: (\_\_\_\_) \_\_\_\_\_

DATE: \_\_\_\_\_

## Attachment 1

### Budget Table

Technical Activities and Consultant: hours x rate - task 1 - task 2 - task 3 - split sample analysis - etc.	Total
Outreach Activities and Products: hours x rate - task/product 1 - task/product 2 - task/product 3 - other	
Administrative Expenses: - oversight/administration of grant activities: hours x rate - copying costs : quantity x rate - postage costs: quantity x rate - supplies - other	
In-Kind Donations: - services - supplies - other	
Additional Funding Sources:	
<b>Total Grant Request</b>	

**Note:** If an applicant is requesting more than \$10,000 a second budget must be completed for the additional amount.

**Table 2**

Timeline/Schedule

<b>Task</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>

---

**ATTACHMENT F**

**EPA'S COMMUNITY RELATIONS  
COMPONENTS/GUIDANCE**

---



---

**ATTACHMENT F.1**

**COMMUNITY RELATIONS GUIDANCE  
FOR SUPERFUND SITES**

---

# ATTACHMENT F.1

## COMMUNITY RELATIONS GUIDANCE FOR SUPERFUND SITES

*Community Relations in Superfund: A Handbook* (U.S. Environmental Protection Agency, 1992) describes the following community relations components:

- **Community Interviews** – On-site discussions must be held with local officials and community members to assess their concerns and determine appropriate community involvement activities.
- **Community Relations Plan** – A complete Community Relations Plan based on community interviews must be developed and approved before remedial investigation field activities start.
- **Information Repository** – An information repository must be established which includes each item developed, received, published, or made available pursuant to the Superfund Amendments and Reauthorization Act (SARA). These items must be made available for public inspection and copying at or near the facility.
- **Technical Assistance Grant (TAG)** – The TAG program provides up to \$50,000 to community groups for the purpose of hiring technical advisors to help citizens understand and interpret site-related technical information for themselves. Congress and EPA have established certain basic requirements concerning the proper use of TAG funds by a recipient group. For example, the group must provide 20% of the total costs of the project to be supported by TAG funds and must budget the expenditure of grant funds to cover the entire cleanup period. Congress has also stipulated that there may be only one TAG award per Superfund site at any one time (see Attachment E for more information).
- **Administrative Record** – EPA must establish an administrative record, which contains many of the documents, reports, correspondence, and other materials related to a Superfund project. In order for the public to review these documents, a copy of the administrative record is maintained in a public facility in the community or area of a Superfund site. EPA must inform the public of the administrative record's location.
- **Notice and Analysis of the Remedial Investigation/Feasibility Study and Proposed Plan** – A remedial investigation/feasibility

## EPA'S COMMUNITY RELATIONS COMPONENTS/GUIDANCE

study (RI/FS) and proposed plan must be developed. Notice of the availability of the RI/FS and proposed plan, including a brief summary of the proposed plan, must be published in a major local newspaper of general circulation. The notice must also announce the public comment period.

- **Public Comment Period on RI/FS and Proposed Plan**— The RI/FS and proposed plan must be provided to the public for review and comment for a period of not fewer than 30 calendar days. Both oral and written comments must be considered.
- **Opportunity for Public Meeting**— Before adoption of any remedial action plan, an opportunity for a public meeting at or near the facility at issue must be provided. A meeting transcript must be prepared and made available to the public.
- **Responsiveness Summary**— A response to each of the significant comments, criticisms, and new data submitted on the proposed plan and RI/FS must be prepared and accompany the Record of Decision (ROD).
- **ROD Availability and Notification**— EPA must make the ROD available for public inspection and copying at or near the site prior to the commencement of any remedial action. Also, EPA must publish a notice of the ROD's availability in a major local newspaper of general circulation. The notice must state the basis and purpose of the selected action.
- **Revision of the Community Relations Plan**— Prior to remedial design, EPA should consider the need to revise the Community Relations Plan to reflect community concerns, as discovered during interviews and other activities, that pertain to the remedial design and remedial action phase.
- **Notice of Availability/Brief Description of Proposed ROD Amendment**— EPA must propose an amendment to the ROD and issue a notice of availability and a brief description of the proposed amendment in a major local newspaper of general circulation.
- **Public Comment Period, Public Meeting, Meeting Transcript, and Responsiveness Summary**— EPA must follow the same procedures as those required for completion of the feasibility study and proposed plan.
- **Notice and Availability of Amended ROD**— EPA must publish a notice of availability of the amended ROD in a major local newspaper and make the amended ROD and supporting

EPA'S COMMUNITY RELATIONS COMPONENTS/GUIDANCE

information available for public inspection and copying in the administrative record and information repository prior to commencement of the remedial action affected by the amendment.

- **Remedial Design Fact Sheet and Public Briefing**— Upon completion of the final engineering design, EPA must issue a fact sheet and provide a public meeting briefing, as appropriate, prior to beginning the remedial action.

---

**ATTACHMENT F.2**

**PUBLIC PARTICIPATION GUIDANCE FOR  
RCRA SITES**

---

# SECTION VII

---



---

## PUBLIC PARTICIPATION

### *In this section...*

Overview .....	VII-1
Permitting .....	VII-2
- Pre-Application Meeting .....	VII-3
- The Draft Permit, Public Comment Period, and Public Hearing .....	VII-4
- Permit Modification .....	VII-4
- Permit Renewals .....	VII-5
- Trial Burn Notices .....	VII-5
- Interim Status Facilities .....	VII-5
- Post-Closure Permits .....	VII-6
- Information Repositories .....	VII-6
Corrective Action .....	VII-6
- Corrective Action Permits .....	VII-7
- Corrective Action Orders .....	VII-7
- Voluntary Corrective Action .....	VII-7
State Authorization .....	VII-7
The Rulemaking Process .....	VII-8
- Proposed Rulemakings .....	VII-8
- Public Comment .....	VII-8
- Final Rulemakings .....	VII-9
Environmental Justice .....	VII-9
Outreach and Public Assistance .....	VII-9
- Grants .....	VII-10
- Freedom of Information Act .....	VII-10
- EPA's Office of Ombudsman .....	VII-10
- RCRA Information Center .....	VII-10
- RCRA, Superfund & EPCRA Hotline .....	VII-11
Summary .....	VII-11

### OVERVIEW

EPA is committed to involving the public in the development and implementation of the solid waste, hazardous waste, and UST environmental decision-making. One of the Agency's central goals is to provide equal access to information and an equal

opportunity to participate. EPA regards public participation as an important activity that empowers



communities to become involved in local RCRA-related activities.

Through RCRA, Congress gave EPA broad authority to provide for public participation in the regulatory program. RCRA §7004(b) directs EPA to provide for, encourage, and assist public participation in the development, revision, implementation, and enforcement of any regulation, guideline, information, or program under the Act.

The RCRA public participation requirements bring government, private industry, public interest groups, and citizens together to make important decisions about hazardous waste, solid waste, and UST facilities. Specifically, these groups and

individuals have a stake in RCRA's hazardous waste management program, such as TSDf permitting, corrective action, and state authorization. On a broader level, the public also has tremendous interest in EPA's rulemaking process and environmental justice.

Public involvement in the RCRA program presents unique needs and opportunities. While the Agency is firmly committed to promoting broad and equitable public participation, EPA also seeks to ensure the flexibility for individual permit writers, facilities, and communities to adopt the most appropriate, site-specific approach consistent with the principles of fairness and openness. As a result, in many instances, EPA references guidance, instead of codified regulatory language, to encourage all stakeholders, such as facilities, permitting agencies, and the public, to strive toward public involvement goals, while at the same time maintaining the flexibility consistent with a national regulatory approach.

EPA views public outreach as an essential element of public participation. Public outreach educates people about hazardous waste issues and the RCRA decision-making process. Public outreach also creates informal opportunities for public input and dialogue. To expand public participation, the Agency actively engages in extensive public outreach activities.

---

## **PERMITTING**

A focus of RCRA public participation is the involvement of the public in the hazardous waste TSDf permitting process. (Permitting is fully discussed in Section III, Chapter 8.) TSDf owners and operators handle large quantities of waste that present potential risk to human health and the environment. Public participation informs the public of the types of wastes and management methods that the TSDf owner and operator intends to employ and allows the public an

### **THE IMPORTANCE OF PUBLIC PARTICIPATION**

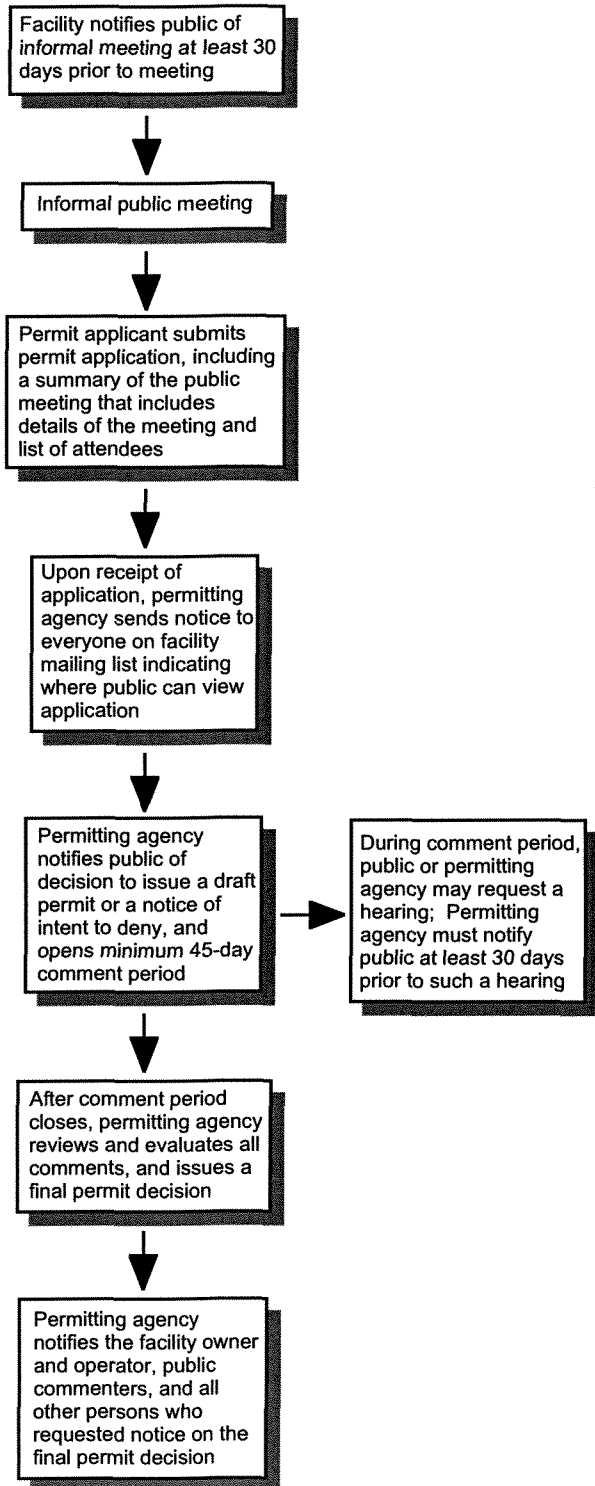
Public participation informs the public of the types of wastes and management methods that a TSDf owner and operator intends to employ and allows the public an opportunity to voice its concerns about these risks. Public participation also benefits the TSDf owner and operator because it fosters community relations and can help to avoid delays and future litigation by addressing public concerns up front.

opportunity to discuss the facility's anticipated waste management activities with the owner and operator. Communities may provide information that facility owners and operators may not otherwise have access to, and which may impact some of the facility plans (e.g., information on day care locations that might impact transportation routes to and from the facility). Public participation also benefits the TSDf owner and operator because it fosters community relations and can help to avoid delays and future litigation by addressing public concerns up front.

From the permitting agency's point of view, the public can contribute valuable information and ideas that can improve the quality of agency decisions and permit applications. With public input, permitting decisions are influenced by local circumstances that technical staff alone cannot provide.

The permitting process serves as an appropriate mechanism for public participation requirements because the permit serves as the set of requirements against which compliance will be measured. Public interaction in the process serves both to educate the public and to allow the public to express concerns to the facility and the permitting agency. Each step in the RCRA permit decision process is accompanied by public participation requirements (see Figure VII-1). EPA promulgated regulations in 40 CFR Parts 25, 124, and 270 to create opportunities for the public to learn about RCRA activities and provide input

**Figure VII-1: PUBLIC INVOLVEMENT IN THE RCRA PERMITTING PROCESS**



during the permitting process. These requirements may not be sufficient in all cases. Permitting agencies and facilities should consider going beyond the regulatory requirements, as necessary, to provide for meaningful and equitable public participation.

Public interaction occurs during pre-application meetings, public comment and response periods, and public hearings. Through all of these steps, the public can engage facility owners and operators and regulators in a dialogue. This dialogue is crucial because a successful public participation program requires the flow of information among all stakeholders.

EPA encourages public participation activities that occur outside the formal permitting process. Citizens can contact environmental, public interest, and civic and community groups that have an interest in the facility and become involved in their activities. The permit applicant may also create informal opportunities for public input and dialogue.

### ■ Pre-Application Meeting

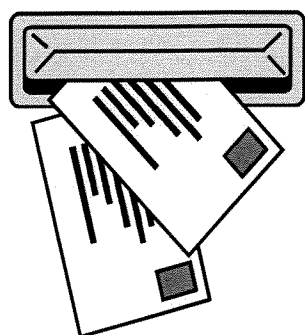
The public participation provisions require prospective applicants to hold an informal public meeting before submitting an application for a RCRA permit. The permit applicant should select a meeting time, date, and place that are convenient to the public. The permit applicant must provide notice of the pre-application meeting at least 30 days prior to the meeting in a manner that is likely to reach all members of the affected community. The applicant must advertise the meeting in the newspaper, through a broadcast announcement, and on a sign posted at or near the property. The meeting will provide a chance for the community to interact with and provide input to an owner and operator before the submission of the permit application. At the meeting, the owner and operator should describe the facility in the level of detail that is practical at



the time of the meeting to give the public enough information to understand the facility operations and potential impacts to human health and the environment. The permit applicant must submit with the permit application a summary of the meeting and a list of all attendees. Upon receipt of the permit application, the permitting agency must send a notice to everyone on the facility mailing list specifying where the public can examine the application. Thus, the public may begin reviewing the application at the same time as the permitting agency.

■ **The Draft Permit, Public Comment Period, and Public Hearing**

Once the permit application is complete, the permitting agency will decide whether to issue a draft permit or a notice of intent to deny. In either



case, the permitting agency notifies the public of its decision and announces the opening of a minimum 45-day public comment period. The permitting agency prints the notice in a local paper, broadcasts the

notice over a local radio station, and sends a copy to the mailing list recipients and relevant agencies. The permitting agency also prepares a fact sheet or statement of basis regarding its decision. The fact sheet (or statement of basis) explains the factual, legal, methodological, and policy questions considered in making the decision to issue or deny the permit.

Any person may request a public hearing during the comment period. The permitting agency holds a hearing if someone submits a

written notice of opposition to the draft permit and a request for a hearing, or if the permitting agency finds a significant degree of interest in the draft permit. The permitting agency may also hold a public hearing at its own discretion. The permitting agency must notify the public at least 30 days prior to the hearing.

The comment period on the draft permit allows public submission of written concerns and suggestions to the permitting agency in writing. The permitting agency describes and responds to all significant comments raised during the comment period.

After the public comment period closes, the permitting agency will review and evaluate all comments and issue a final permit decision. The agency sends a notice of decision to the facility and any person who submitted comments or requested notice on the final permit decision.

■ **Permit Modification**

As with the initial permit process, permit modifications can raise public concerns that must be addressed through public participation. Public participation responsibilities and activities vary depending on who initiated the modification and the degree to which the modification changes the facility permit. When a modification is proposed, only the permit conditions subject to modification are reopened for public comment.

Permitting agencies may initiate a permit modification if there are substantial alterations or additions to the facility, if new information is received by the permitting agency that was not available at the time of permit issuance, or if new regulations or judicial decisions affect the conditions of the permit. Agency-requested permit modifications are subject to the same public participation requirements that are required during the permitting process.

Permit modifications initiated by the facility owner and operator are categorized as Class 1, 2, or 3 according to how substantively they change the original permit. The only public involvement requirement for Class 1 modifications is that within 90 days of implementing a change the facility must send a notice to all parties on the mailing list compiled by the permitting agency.

The Class 2 modifications are more stringent than Class 1 modifications, and involve public notice in a local newspaper, a 60-day comment period, and a public meeting held no earlier than 15 days into the comment period and no later than 15 days before it ends. At any time during the Class 2 procedures, the permitting agency may reclassify the request as a Class 3 modification if there is significant public concern or if the agency determines the modification is too complex for the Class 2 procedures.

Class 3 modifications address changes that substantially alter a facility or its operations, and often raise significant public concern. While these

#### **PUBLIC PARTICIPATION DURING PERMIT MODIFICATIONS**

Public participation requirements during permit modifications vary depending on the extent of the modification. Class 1 permit modifications require that within 90 days of implementing a change, the facility must send a notice to all parties on the mailing list compiled by the permitting agency. Class 2 permit modifications involve public notice in a local newspaper, a 60-day comment period, and a public meeting held no earlier than 15 days into the comment period and no later than 15 days before it ends. While Class 3 modifications are subject to the same requirements as Class 2 modifications, such modifications require the permitting agency to provide the public with additional opportunities to participate in the process.

modifications are subject to the same public participation provisions as Class 2 modifications, Class 3 modifications require the permitting agency to provide the public with additional

opportunities to participate in the process. For example, the permitting agency must issue a public notice of the agency's draft permit decision, allow for a 45-day public comment period on the decision, develop a fact sheet or statement of basis, and hold a public meeting (if requested) with 30-day advance notice.

#### ■ **Permit Renewals**

A facility owner and operator who makes a significant change during the renewal of their permit is also subject to the pre-application meeting and notice requirements. A significant change in facility operations is a change that is equivalent to a Class 3 modification. This requirement ensures that if during permit renewal a facility makes significant changes to an already publicly reviewed and approved permit, the public will have an opportunity to participate in the permit review and approval process.

#### ■ **Trial Burn Notices**

Owners and operators of new hazardous waste combustion facilities may not commence a trial burn until after the permitting agency has issued the required notice. EPA anticipates that permitting agencies will typically notify the public at least 30 days prior to the trial burn. The notice requirement applies only to the initial trial burn, and not to subsequent burns that may be conducted as part of a permit modification. For interim status combustion units, the permitting agency must also provide public notice of the intent to approve a trial burn plan.

#### ■ **Interim Status Facilities**

In general, interim status facilities are not required to follow any standardized public participation procedures until the facility owner and operator applies for a permit. Implementing

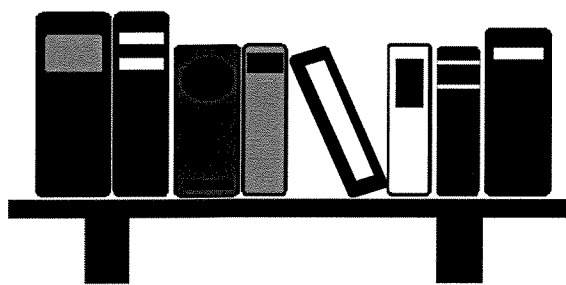
agencies may need to use innovative techniques to communicate with the public about interim status facilities. EPA acknowledges that each situation will require a different type and level of community involvement in order to address public concerns.

### ■ Post-Closure Permits

Owners and operators who submit a permit application for the purpose of conducting post-closure activities are not subject to the pre-application meeting and notice requirements. EPA's experience is that the public has usually been concerned with permit decisions related to active hazardous waste management operations rather than closed facilities. Post-closure activities are subject to the public notice and comment period at the draft permit stage.

### ■ Information Repositories

In certain instances, RCRA permits can be the subject of intense debate. When public interest is strong, the demand for information increases. The public participation requirements allow the permitting agency to require a permit applicant to



set up an information repository at any time after submittal of the permit application and during the life of the permit. The repository will hold all information and documents that the permitting agency decides are necessary to adequately inform and educate the public. EPA intended for permitting agencies to use the information

repository requirement sparingly on a case-by-case basis when a significant amount of public concern has surfaced or where the community has unique information needs.

---

## CORRECTIVE ACTION

Corrective action investigations and remedial actions at hazardous waste facilities also create strong community interest because contamination can directly affect and impact communities. (Corrective action is fully discussed in Section III, Chapter 9.) The community may seek information related to current or potential contamination, including levels of contamination, the extent of health and environmental risks, and the potential for future risks. The public may also seek additional opportunities to provide input to the overseeing agency or the facility about the cleanup of the contamination.

More than 5,000 facilities are subject to RCRA corrective action. The necessary degree of cleanup at these sites varies significantly. Program implementors are granted latitude in structuring the corrective action process, developing cleanup objectives, and selecting remedies appropriate to site-specific circumstances. Similar latitude is allowed in determining the best approach to public participation, in order to provide opportunities appropriate for the level of interest of the community.

Public participation requirements during corrective action are established in regulations; further recommendations are set out in guidance. The regulations set requirements that facilities and implementing agencies must meet when a permit is issued or modified to incorporate corrective action provisions.

In the absence of final regulations specifically addressing public participation during corrective action, program implementors and facility owners

and operators should develop public participation strategies on a site-specific basis, consistent with existing public participation requirements and the program goal of full, fair, and equitable public participation. Permitting agencies and facilities should make all reasonable efforts to provide for early public participation because important corrective action decisions are made during the site investigation and characterization. At a minimum, information regarding corrective action activities should be available to the public and the public should be given an opportunity to review and comment on proposed corrective action remedies.

### ■ Corrective Action Permits

When corrective action is part of the RCRA permitting process, it follows the public participation requirements associated with permitting. Thus, the corrective action provisions in any permit application are available for public review throughout the permitting process and the public can comment on them at the draft permit stage.

### ■ Corrective Action Orders

EPA regulations do not require that corrective action activities that are imposed or overseen through an order include public participation. However, EPA's policy is that the same level of

public participation requirements imposed under a permit should generally apply under a corrective action order. There may be limitations on the implementing agency's ability to release or discuss certain information when using an order, but if public interest in the facility is high, the agency should address concerns without breaching the confidentiality of the owner's and operator's case by at least discussing why limitations are necessary, and if and when they will be lifted.

EPA has clarified various issues in reference to public participation activities during RCRA §7003 imminent hazard cleanups. Specifically, §7003 orders should involve public participation to the maximum extent possible. During these cleanups, EPA should provide public notice and an opportunity to comment when the Agency issues the order, during the remedy selection process, and upon Agency determination that the cleanup has been completed. When situations prevent public participation from occurring, the Agency should involve the public at the earliest opportunity. The Agency may also consider holding public meetings to address concerns if the site has attracted significant attention.

### ■ Voluntary Corrective Action

Although EPA typically has less control over public participation during voluntary corrective action, the Agency encourages the use of public participation and will generally take into account the level of public participation conducted by the facility owner and operator when evaluating the acceptability of voluntary actions.

#### **PUBLIC PARTICIPATION DURING CORRECTIVE ACTION**

When corrective action is part of the RCRA permitting process, it follows the public participation requirements associated with permitting. While EPA regulations do not require public participation for corrective action activities that are imposed or overseen through an order, EPA's policy is that the same level of public participation requirements imposed under a permit should generally apply under a corrective action order.

## **STATE AUTHORIZATION**

RCRA also requires public involvement when EPA authorizes states to implement the hazardous waste regulations. Such public involvement is intended to allow the public to voice their

concerns regarding the change in implementing agency. Specifically, during the state authorization process, a state must provide public notice and an opportunity for public hearing before submitting its application for final authorization. The Statute also requires that EPA provide opportunity for public hearing before it decides to grant or deny a state's authorization and before EPA withdraws a state's authorization. (State authorization is fully discussed in Section III, Chapter 11.)

## THE RULEMAKING PROCESS

Besides facilitating public participation during hazardous waste TSDF permitting, corrective action, and state authorization under the RCRA Subtitle C program, EPA proactively initiates public involvement activities as part of all formal RCRA rulemakings. Congress, through the **Administrative Procedures Act** (APA) (5 U.S.C. Sections 551-559), established the legal requirement that federal agencies provide the public with notice and an opportunity to comment on rulemakings. The Act addresses rulemaking procedures as well as site-specific licensing procedures, access to agency information, and procedures and standards for judicial review of agency actions. All environmental rulemakings proposed and finalized by EPA include public participation throughout the process (see Figure VII-2).

### ■ Proposed Rulemakings

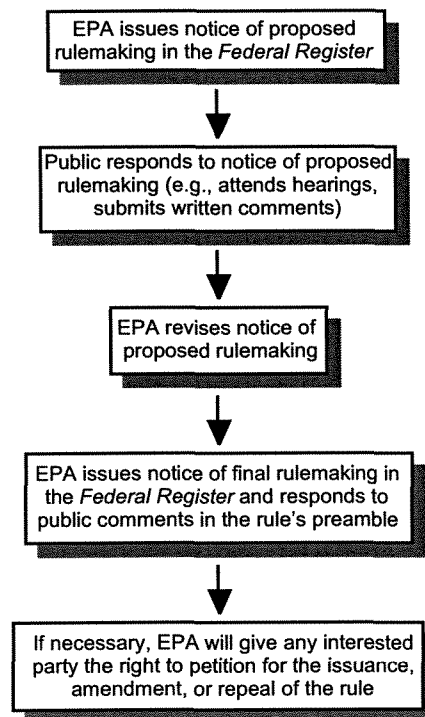
The first step in the rulemaking process is the issuance of the notice of proposed rulemaking by EPA. The forum for providing the public with notice of a proposed rule is the *Federal Register*. The notice must include a statement of the time,

place, and nature of the rulemaking, a reference to the legal authority under which the rule is proposed, and the terms of the proposed rule.

### ■ Public Comment

After notice is given, EPA must provide interested persons an opportunity to participate in the rulemaking through submission of written data, views, or arguments. This process not only educates the public, but also provides valuable information to EPA during the regulatory development process. Up-front participation reduces the likelihood of litigation challenging subsequent regulations. Public participation can take many forms, including opportunity for a hearing, opportunity for access to EPA materials, and opportunity for written comments on proposals.

**Figure VII-2: THE RULEMAKING PROCESS**



## ■ Final Rulemakings

Once public comments are considered, EPA will revise the proposed rulemaking. The rule will often change between its proposal and finalization as a result of public comments. The final rule is published in the *Federal Register*, and EPA will respond to public comments in the rule's preamble. After final promulgation, EPA must give any interested party the right to petition for the issuance, amendment, or repeal of the rule.

## ■ Rulemaking Information

EPA evaluates a variety of background information, as well as public comments, in the development of a particular rulemaking. Each *Federal Register* lists a background docket that is available for public viewing. This docket contains all the background documents, including scientific studies, risk assessments, public comments, and EPA responses, that were used for that particular rulemaking.

In addition to the background docket, the *Federal Register* also contains regulatory impact analyses. These are analyses of a particular rulemaking's effects on other environmental regulations and economic impact on the regulated community.

In these analyses, EPA evaluates the effects this rule will have on other environmental regulations, such as CERCLA and CWA, and publishes the expected impacts in the *Federal Register*. In addition, EPA studies the economic effects of a particular rule on the regulated community to determine compliance costs. As required by the Regulatory Flexibility Act of 1980, the Agency also evaluates the impacts of the rulemaking on small businesses, small organizations, and small governmental jurisdictions.

## ENVIRONMENTAL JUSTICE

**Environmental justice** refers to the fair distribution of environmental risks across socioeconomic and racial groups. On February 11, 1994, President Clinton issued Executive Order 12898, directing federal agencies to identify and address environmental concerns and issues of minority and low-income communities.



EPA is committed to equal protection in the implementation and enforcement of the nation's environmental laws. EPA believes that environmental justice issues should be addressed on a local level and on a site-specific basis. EPA encourages permitting agencies and facilities to use all reasonable means to ensure that all segments of the population have an equal opportunity to participate in the permitting process and have equal access to information in the process. These means may include, but are not limited to, multilingual notices and fact sheets, as well as translators, in areas where the affected community contains significant numbers of people who do not speak English as a first language.

## OUTREACH AND PUBLIC ASSISTANCE

A number of opportunities exist for the public to obtain RCRA program information and assistance. These include grants, the Freedom of Information Act, EPA Office of Ombudsman, the RCRA Information Center, and the RCRA, Superfund & EPCRA Hotline.

## ■ Grants

Under RCRA §7007, EPA has the authority to provide grants to states, municipalities, educational institutions, or any other organization to help these groups effectively implement training programs that demonstrate solid waste management and resource recovery operations. Such grants provide governments and nonprofit organizations with the opportunity to further the goals of Act through public outreach.

## ■ Freedom of Information Act

The **Freedom of Information Act** (FOIA) provides private parties with the right to obtain information in the possession of the government. Unless materials are promptly published and copies are offered for sale, each agency must make information available for public inspection and copying. FOIA requires each agency to establish procedures for handling requests regarding government statutes, regulations, standards, permit conditions, requirements, orders, and policies.

There are certain materials which are not subject to FOIA. These include:

- Draft materials
- Matters of national defense or foreign policy
- Material related solely to internal personnel rules and practices
- Trade secrets and privileged commercial or financial information
- Investigation material collected for enforcement purposes
- Geological and geophysical information and data.

EPA has pursued a policy of fully disclosing its records to the public, consistent with the rights of individuals to privacy, the rights of persons entitled to protection under confidential business information (CBI) provisions, and the need for EPA to promote internal policy deliberations. EPA will disclose information to any requester to the fullest extent possible without unjustifiable expense or unnecessary delay.

## ■ EPA's Office of Ombudsman

In order to create a central clearinghouse for public concerns on matters relating to the implementation and enforcement of RCRA, EPA established the Office of Ombudsman and appointed a Hazardous Waste Ombudsman at EPA Headquarters and each EPA Region. The primary responsibilities of the Ombudsman are to respond to questions and complaints regarding implementation of the RCRA program. Additionally, the Ombudsman makes recommendations to the EPA Administrator based on inquiries received. The EPA Headquarters Ombudsman may be reached by contacting:

Office of Ombudsman  
U.S. Environmental Protection Agency  
Office of Solid Waste and Emergency  
Response  
401 M Street, S.W.  
Washington, DC 20460  
(800) 262-7937

## ■ RCRA Information Center

The RCRA Information Center (RIC) houses the background dockets for all RCRA rulemakings, as well as additional EPA publications on RCRA. The public can view docket materials Monday through Friday from 9:00 a.m. to 4:00 p.m., EST. The public can make an appointment to review these materials by calling (703) 603-9230. A maximum of 100 pages may be copied from any regulatory document at no charge and additional

copies cost \$0.15 per page. The RIC is located at Crystal Gateway I, First Floor, 1235 Jefferson Davis Highway, Arlington, Virginia.

### ■ RCRA, Superfund & EPCRA Hotline

The RCRA, Superfund & EPCRA Hotline is a publicly accessible service which provides up-to-date regulatory information. The Hotline responds to factual questions on federal EPA



regulations developed under RCRA, CERCLA, EPCRA, the Oil Pollution Act (OPA), and SPCC. The Hotline is staffed by professionals who are completely familiar with the latest issues and regulations affecting the hazardous waste program. The Hotline is open Monday through Friday from 9:00 a.m. to 6:00 p.m., EST, and may be contacted at either (703) 412-9810, or toll-free, (800) 424-9346.

---

## SUMMARY

EPA is committed to involving the public in the development and implementation of the solid waste, hazardous waste, and UST regulations and seeks to empower communities to become involved in local RCRA-related activities. To achieve these goals, the RCRA public participation requirements bring government, private industry, public interest groups, and citizens together to make important decisions about hazardous waste management facilities.

A focus of RCRA public participation is the involvement of the public in the hazardous waste TSDf permitting process. The public interaction

occurs during pre-application meetings, public comment and response periods, and public hearings. RCRA includes specific provisions to involve the public in all stages of the hazardous waste TSDf permitting process: prior to the initial permit application; after draft permit issuance; and during permit modifications, permit renewals, post-closure permits, and trial burns.

In addition, RCRA requires public involvement during Subtitle C corrective action, whether such cleanups are instituted through a permit or order, or conducted voluntarily. RCRA also requires public involvement when EPA authorizes states to implement the hazardous waste regulations.

While RCRA's initiatives to facilitate public participation during hazardous waste TSDf permitting, corrective action, and state authorization are limited to the RCRA Subtitle C program, EPA is required to comply with the public involvement provisions under APA for all formal rulemakings under all RCRA subtitles.

Consistent with Executive Order 12898, directing federal agencies to identify and address environmental concerns and issues of minority and low-income communities, EPA encourages allowing all segments of the population equal access to information pertaining to the RCRA program.

To assist in disseminating information and promoting public education about the RCRA program, EPA engages in several outreach and public assistance mechanisms. The Agency provides training grants, allows access to information through the Freedom of Information Act, and provides program information through the EPA Office of Ombudsman, the RCRA Information Center, and the RCRA, Superfund & EPCRA Hotline.



---

**ATTACHMENT G**

**EPA SUMMARY OF AGREEMENT: GENERAL ELECTRIC/PITTSFIELD-  
HOUSATONIC RIVER SITE**

---

October 7, 1999

## **EPA Summary of Agreement General Electric/Pittsfield - Housatonic River Site**

On October 7, 1999, representatives of U.S. Environmental Protection Agency; U.S. Department of Justice; the Commonwealth of Massachusetts Department of Environmental Protection, Office of the Attorney General and Executive Office of Environmental Affairs; the State of Connecticut Department of Environmental Protection and Office of the Attorney General; the U.S. Department of Interior; the National Oceanic and Atmospheric Administration; the City of Pittsfield; the Pittsfield Economic Development Authority and the General Electric Company (GE) reached a comprehensive agreement relating to the cleanup of GE's Pittsfield facility, certain off-site properties and the Housatonic River.

The detailed terms of this agreement are incorporated in a Consent Decree which was lodged on October 7, 1999, with the United States District Court of Massachusetts, Western Division, located in Springfield, Massachusetts.

The Consent Decree provides for cleanup of the Housatonic River and associated areas, cleanup of the General Electric Plant facility, environmental restoration of the Housatonic River, compensation for natural resource damages, and government recovery of past and future response costs. In addition, a Definitive Economic Development Agreement among GE, the City of Pittsfield, and the Pittsfield Economic Development Authority (PEDA) provides for economic redevelopment of the GE Plant facility. That agreement will become effective upon entry of the Consent Decree.

The major components of the combined agreements are:

- I. Cleanup of Contaminated Areas
- II. Restoration of Natural Resources
- III. Recovery of Government Costs
- IV. Effect and Form of the Consent Decree

Additional important actions include:

- Enhanced Public Participation
- Brownfields Redevelopment and Economic Aid

Below is EPA's summary of the Consent Decree. It should be noted that this is EPA's summary and has not been approved by the other parties to the agreement. In addition, this summary is not intended to be all-inclusive or binding in any respect, and is being provided for public informational purposes only. The Consent Decree and other ancillary documents represent the final, binding agreement between the parties and are being made available to the public at the following locations:

Lenox Public Library  
18 Main Street  
Lenox MA 01240  
413-637-0197

Berkshire County Regional Planning Commission  
10 Fenn Street  
Pittsfield MA 01201  
413-442-1521

Berkshire Athenaeum Public Library  
Reference Department  
1 Wendell Avenue  
Pittsfield MA 01201  
413-499-9488

Simon's Rock College of Bard  
84 Alford Rd.  
Great Barrington MA 01230  
413-528-7274

**A public comment period of 60 days will begin when the notice is published in the federal register.**

## **I. Cleanup of Contaminated Areas**

### **A. Scope of the Consent Decree**

This agreement covers the GE Plant Site, including Silver Lake and Unkamet Brook, the former oxbows (including Newell Street commercial properties), the Housatonic River sediments, banks, and floodplain properties downstream of the GE Plant Site, and the Allendale School. With the exception of the residential properties within the former oxbows, this agreement does not cover cleanup of residential properties in Pittsfield or elsewhere that received GE wastes for use as fill. These properties are covered by a separate Administrative Consent Order between Massachusetts and GE. More than 100 residential fill properties will have been cleaned up by the end of the 1999 construction season. Residential fill properties remain a high priority and will continue on an expedited sampling and cleanup schedule.

### **B. Overall Principles for Management of the Cleanup**

1. Extensive sampling on GE and non-GE owned properties. Agencies to oversee all GE work and reserve the right to conduct additional sampling if necessary.
2. GE to perform cleanups except on 1 ½ Mile Reach of Housatonic River. (See section C.8).
3. Material and debris excavated from areas subject to this Consent Decree, excluding the River below two miles, are to be consolidated on the GE facility subject to the following:
  - a. No disposal of regulated TSCA waste or RCRA hazardous waste in the Hill 78 Consolidation Area.
  - b. No on-site disposal of drums, capacitors, equipment, free product or asbestos required to be removed as part of the building demolition.
  - c. Area and height limitations of the consolidation areas as follows:  
Hill 78- 5.6 acre footprint and 1,050 foot maximum elevation,  
Building 71- 4.4 acre footprint and 1,048 foot maximum elevation,  
Merrill Road/New York Ave- 1.6 acre footprint and 1,027 foot maximum elevation. Elevation is based on National Geodetic Vertical Datum (NGVD). For reference purposes, current elevation of the top of Hill 78 (including the material from the Allendale School, as described in Item I.C.3) is 1049 feet.
  - d. Capping and long-term monitoring of consolidation units.
  - e. Building demolition debris, following the removal of asbestos, may also be consolidated within the existing foundations of certain buildings.
4. Environmental Restrictions and Easements (EREs) are to be placed on all GE-owned properties to ensure that current uses will not change (i.e., commercial/industrial properties will continue to be used as commercial/industrial properties and recreational properties will continue to be used as recreational properties) and to protect the integrity of the cleanup.
5. Two options for non-GE owned properties: a) cleanup that is protective of current use with Environmental Restrictions and Easements (EREs) utilized, with consent of the owner,

to maintain current use, or b) a conditional solution which also provides a cleanup that is protective of current use but, instead of EREs, requires additional cleanup if the use of the property changes ( see also C. 2.b).

6. Fully cooperative approach to management of cleanup activities.
7. The parties have established a management architecture for project implementation involving EPA, state regulatory agencies, GE, and, as appropriate, PEDDA, the City and the Trustees to ensure that all aspects of the project are managed in a fully collaborative and cooperative manner, to plan work and to cooperatively head off problems and disputes before they arise.
8. Public to provide input throughout implementation of the work.

### C. Specific Areas for Cleanup

#### 1. **GE Plant Site**

GE will undertake the following:

##### a. Soil Remediation

Objective: to remediate surface soils to levels that allow for commercial/industrial or recreational use, and to minimize exposure to contaminants in deeper soils.

- Remediation required for PCBs greater than 25 parts per million (ppm) average in surficial soils (0-1 foot).
- An engineered barrier to minimize infiltration and prevent exposure will be implemented in areas where PCBs greater than 100 ppm average are within the top 15 feet.
- Remediation required for PCBs greater than 200 ppm average from 1-6 feet.
- New or repaired utility corridors will be backfilled with soils that contain no more than 25 ppm PCBs.
- No capping of unpaved soils in floodplain. Soil removal and replacement required instead in order to avoid loss of flood storage capacity.
- Removal of pavement in 200-foot-wide buffer zone on northern (plant) side of River between the location of the former Thermal Oxidizer and the downstream boundary of the GE facility to provide enhanced habitat resoration and to reduce storm water runoff.
- Future City of Pittsfield ballfield will include a one foot cap in addition to achieving the recreational standard of 15 ppm PCBs average in the next 2 feet.

##### b. Unkamet Brook and Floodplain Remediation

Objective: To provide protection for human recreational users and biological receptors in

the portions of the Brook and its floodplain from Dalton Avenue downstream to the Housatonic River.

- Reroute Unkamet Brook to its former channel and cap entire existing industrial landfill.
- Remove Brook sediments and remediate inundated wetland sediments to achieve 1 ppm PCBs average in surface sediments.
- Remove soils in Unkamet Brook recreational floodplain to achieve 10 ppm PCBs average in top foot and 15 ppm in 1-3 foot depth.

c. Hill 78 and Building 71 Consolidation Areas

Objective: To eliminate risk of exposure to materials in the consolidation units through a combination of engineering controls and long-term monitoring.

- Install a protective cap over Hill 78 and Building 71 Consolidation Areas.
- Establish an extensive groundwater monitoring system to monitor the groundwater surrounding the landfill.
- Install a liner and leachate collection system for Building 71 Consolidation Area.
- Design both areas with human health and environmental protection, as well as configuration limitations, in mind.
- An additional area at New York Ave/Merrill Road may be utilized and will be designed in a similar manner to the Building 71 Consolidation Area.

d. Non-GE Owned Property Within the GE Plant Site

Objective: To make properties safe for current use through a combination of clean-up and deed restrictions (with appropriate compensation to the property owner); and to provide flexibility (in the form of additional cleanup) for future use changes on properties where there is not agreement on deed restrictions. The property owner will decide which option to choose. Both options provide an initial cleanup that is protective of current uses.

- For current commercial/industrial and recreational areas, GE is to make best efforts, as defined in the Consent Decree, to obtain appropriate deed restrictions (i.e., EREs), including offering reasonable monetary compensation, and will clean up property consistent with the following:  
either: obtain EREs with owner's consent and clean property as follows:
  - (i) at commercial/industrial properties, clean up consistent with GE Plant Site commercial/industrial standards, including remediation (via soil removal and/or pavement enhancement) for PCBs greater than 25 ppm average in surficial soils, achievement of 200 ppm PCB average for 1-6

foot depth, installation of engineered barrier where PCBs exceed 100 ppm average in top 15 feet, and backfilling in new or repaired utility corridors with soil less than 25 ppm PCB average; and

(ii) at recreational properties, achieve 10 ppm PCB average in top foot of soil and 15 ppm at 1-3 feet, install engineered barrier where PCBs exceed 100 ppm average in top 15 feet, and ensure backfill in new or repaired utility corridors is less than 10 ppm PCBs average;

or: if the owner's consent for an ERE is not obtained, GE will implement a conditional solution protective of current use, meeting the following requirements:

(i) same soil remediation as at properties with EREs except that GE will remove soils to achieve PCB averages of 25 ppm in the top 3 feet at commercial/industrial properties and 10 ppm in the top 3 feet at recreational properties; and

(ii) GE will conduct further remediation that is needed to be protective of any legally permissible future use for which the owner obtains governmental approval (if necessary) and provides appropriate evidence regarding the future use or activity.

#### e. Groundwater Remediation

Objective: to meet appropriate standards for protection of surface waters (i.e., Housatonic River, Silver Lake, Unkamet Brook) and to prevent risks from volatilization of contaminants into occupied buildings. The standards are based on the assumption that there is no current or reasonably foreseeable future use of groundwater for drinking water purposes.

- Install perimeter and sentinel (early warning) groundwater monitoring systems.
- Continue oil recovery and conduct groundwater treatment until groundwater standards are met.

#### Timetable:

- Active control of potential sources of contamination to the River has been ongoing for many years and is continuing. Upstream source control has been completed and remaining source control will be completed prior to river excavation in the relevant river reach.
- Overall facility cleanup will be coordinated with Brownfields Redevelopment.
- Unkamet Brook investigation process will begin 24 months after entry of the Consent Decree. After completion of the investigation, cleanup work will begin.
- All work in these areas is expected to be completed over a period of about 5 years after entry of the Consent Decree.

## 2. Former Oxbow Areas

GE will undertake the following:

- a. Additional sampling of soils and groundwater

Objective: To identify the nature and extent of soil and groundwater contamination.

- b. Soil Remediation

Objective: to achieve appropriate cleanup standards keyed to current uses and expected future uses (i.e., commercial, recreational, or residential standards referenced below) and to allow for changes in property uses.

- For the Lyman Street and Newell Street parking lots, remove surficial soils and replace with vegetative engineered barriers.
- For current commercial/industrial and recreational areas, GE to clean-up in accordance with Item C(1)(d) above.
- For residential properties, achieve 2 ppm PCB average.

- c. Continue oil recovery operations and implement groundwater treatment or controls until groundwater standards are met.

Objective: to prevent floating and sinking oils from discharging to the River.

Timetable:

- As the cleanup of the Upper Two Mile Reach progresses from the Newell Street Bridge downstream, oxbow property cleanups will be coordinated with River work to the extent practicable. Cleanup of the River will begin at the Newell Street bridge in the Fall of 1999. GE will submit an investigation plan for the Newell Street commercial properties 5 months from the lodging of the Consent Decree. After entry of the Consent Decree and completion of the investigation, cleanup work will begin.

## 3. Allendale School

Objective: to remove contaminated fill (which had previously been capped) from the schoolyard and restore the schoolyard.

- GE removed all soils containing PCBs greater than 2 ppm (except in a small area



at depth near the foundation of the school building where concerns over foundation stability and safety only allowed for an average of 2 ppm to be met); GE replaced with clean soil and is restoring area.

Timetable:

- Soil remedial work has been completed and restoration work is on-going. The restoration is expected to be completed in the Fall of 1999.

#### **4. Housatonic River Floodplain - Current Residential Properties**

Objective: to clean all properties to unrestricted use standards.

GE will implement (or share in funding for 1 ½ Mile Reach Riverbanks) the following:

##### **a. Residential properties in 1 ½ Mile Reach**

- Remove non-riverbank soils to no more than 2 ppm PCBs average.
- Riverbanks to be addressed by EPA as part of Engineering Evaluation/Cost Analysis (EE/CA) for 1 ½ Mile Reach (Item C.8 below).
- Timetable: Clean-up coordinated with river work to the extent practicable.

Timetable:

- Investigation process to begin 16 months after entry. After completion of the investigation, cleanup work will begin and will be coordinated with the River work to the extent practicable.

##### **b. Residential Properties Downstream of 2-Mile Reach**

- Remove soils at actual or potential lawn areas to no more than 2 ppm PCBs average.
- Install short term measures (e.g., signs) for riverbanks with contamination levels exceeding state thresholds for short-term measures.
- Remediate riverbank portions as part of Rest of River (Item C.9 below).

Timetable:

- Investigation process to begin 16 months after entry. After completion of the investigation, cleanup work will begin.

#### **5. Housatonic River Floodplain - Non-Residential Areas**

Objective: to achieve appropriate cleanup standards keyed to current uses and expected future uses (i.e., commercial, recreational, or residential standards referenced below) and to allow for changes in property uses.

GE will undertake (or share in funding for 1 ½ Mile Reach Riverbanks) the following:

- a. In 1 ½ Mile Reach, riverbanks are to be remediated by EPA as part of the 1 ½ Mile Reach Removal Action (Item C.8 below).
- b. Recreational and commercial/industrial non-riverbank areas in 1 ½ Mile Reach will be addressed in accordance with Item C.1.d above.
- c. In area below 1 ½ Mile Reach, address the non-residential floodplain properties in connection with the cleanup of the Rest of River (Item C.9 below).

Timetable:

- Cleanup of 1 ½ Mile Reach floodplain properties will be performed concurrently with River cleanup to the extent practicable.
- Non-residential floodplain properties below 2 miles will be on a timetable that is dependent on the Rest of River decision.

## 6. Silver Lake

Objective: to provide a clean-up that is protective of human and ecological use of the lake.

- a. Remove bank soils at non-residential properties to achieve no more than 10 ppm PCBs average in top foot and 15 ppm PCBs average at 1-3 feet, assuming EREs are executed. If no ERE's, a conditional solution will be implemented for bank soils that will achieve 10 ppm PCBs average in top 3 feet and meet the other requirements for conditional solutions in Item C.1.d.(ii) above. On residential properties, GE will achieve a 2 ppm PCBs average.
- b. Remove and replace hot spot sediments near the outfall.
- c. Cap the entire 26 acre lake bottom and armor the entire perimeter of lake; specific design plans to be approved in the future by EPA.
- d. Perform periodic review of effectiveness of cap. If performance standards for cap are not met, additional actions will be evaluated and implemented.

Timetable:

- Investigation process to begin 18 months from entry of the Consent Decree. After completion of the investigation, cleanup work will begin.

### **7. Housatonic River - Upper ½ Mile Reach**

Objective: to achieve a clean-up that is protective of human health and the environment within the Upper ½ Mile Reach and to prevent further downstream migration of contaminants.

GE will undertake the following in the Upper ½ Mile Reach (Newell Street Bridge to the Lyman Street Bridge):

- a. Remove and restore sediments per final design work plan already submitted by GE and approved by EPA.
- b. Remove and restore bank soils to achieve 10 ppm average in top foot and 15 ppm average at 1-3 feet.

Timetable:

- To begin in the Fall of 1999. To be completed by May, 2001.

### **8. Housatonic River - Next 1 ½ Mile Reach from the Lyman Street Bridge to the Confluence of the East and West Branches (includes sediments and riverbanks)**

Objective: to achieve a clean-up that is protective of human health and the environment within the 1 ½ Mile Reach and to prevent downstream migration of contaminants.

- a. EPA is currently conducting and GE is funding an Engineering Evaluation/Cost Analysis (EE/CA) of the alternatives for cleanup of the 1 ½ Mile Reach.
- b. EPA will select response actions for the 1 ½ Mile Reach after the completion of the EE/CA and after consultation with GE, affected property owners in the 1 ½ Mile Reach floodplain, and the Citizens' Coordinating Council, and review by EPA's National Remedy Review Board.
- c. EPA will implement the selected response action. The costs will be shared by GE and EPA with the amount of funding dependent on the overall costs:
  - GE to pay 100% of costs up to \$15 million.
  - For incremental costs between \$15 and \$25 million, GE will pay 70% of costs and EPA will pay 30%.
  - For incremental costs between \$25 and \$32.5 million, GE will pay 60 % of costs

- and EPA will pay 40%.
- For incremental costs between \$32.5 and \$40 million, GE and EPA will each pay 50%.
- For incremental costs between \$40 and \$50 million, GE will pay 40% of costs and EPA will pay 60% of the costs.
- For incremental costs exceeding \$50 million, GE will pay 30% of the costs and EPA will pay 70% of the costs.

e. Examples of allocations under cost share formula: if cost of response action is \$32.5 million, EPA's cost share will be \$6 million, or approximately 20% and GE's share will be \$26.5 million. If the cost is \$40 million, EPA's share will be \$9.75 million, or approximately 24 %, and GE's share will be \$30.25 million. If the cost is \$50 million, EPA's share will be \$15.75 million, or approximately 31.5%, and GE's share will be \$34.25 million.

Timetable:

- Draft EE/CA to be available to the public in the Fall of the 1999. Work to begin in June 2001 and to be completed in 4 years.

**9. Housatonic River - 'Rest of River' -- contaminated river sediments, banks and floodplain areas (other than actual or potential lawns, which are covered in Item I.C.4.b) downstream of the confluence with the West Branch**

Objective: 1) Implement a process which is designed to result in a remedy decision for the downstream portions of the Housatonic River that is protective of human health and the environment; and 2) Performance by GE of the Rest of River cleanup.

- a. EPA to conduct additional sampling, human health and ecological risk assessments and modeling.
- b. A Peer Review Panel will review the human health risk assessment, ecological risk assessment and modeling performed by EPA.
- c. GE to compile all data into an investigation report and evaluate remedial alternatives under a modified process which limits appeals until after a final remedy has been chosen.
- d. At conclusion of studies, EPA will issue a Statement of Basis that selects a river remedy and modify GE's RCRA permit to obligate GE to perform the cleanup.
- e. GE agrees to perform the selected cleanup after completion of any dispute resolution

under Consent Decree:

- Dispute resolution may include review by the EPA Environmental Appeals Board and the United States Court of Appeals for the First Circuit.
- During dispute, all work not subject to the dispute continues, and EPA can proceed with designing aspects of the Rest of River cleanup that GE has disputed, and under certain conditions may proceed with implementation of the work.

Timetable

- Decision on the Rest of River cleanup is expected to be made by EPA in 2002. Based on the assumptions that the clean up of the first two miles of river will not be completed until 2004 or 2005, EPA does not expect any delay in the implementation of the remedy for the Rest of River if GE invokes the dispute resolution referenced above.

## **II. Restoration of Natural Resources**

### **A. Primary Restoration**

Objective: to compensate the public for natural resource damages by cleaning up valuable resource areas to the extent practicable.

Primary restoration will be composed of the response actions agreed upon for the Housatonic River, Silver Lake, Unkamet Brook and associated wetlands and floodplains.

### **B. Compensatory Restoration**

Objective: to compensate the public for natural resource damages that could not be addressed through the clean-up.

Compensatory restoration will be composed of the following elements:

1. GE will pay \$15 million, plus interest, to be administered by the natural resource trustees (US Department of Interior, National Oceanic and Atmospheric Administration, Commonwealth of Massachusetts, State of Connecticut), with appropriate public input, for natural resource projects.
2. GE will perform or fund the following restoration/enhancement activities in connection with the cleanup:

- a. Habitat enhancements in the first ½ Mile River Reach (enhancement of vegetation on banks) in conjunction with response action performed by GE.
  - b. Payment made (as part of cost share) for habitat improvements in the next 1 ½ Mile Reach (pool/riffle structure in riverbed, enhancement of vegetation on banks) in conjunction with response action to be performed by EPA.
  - c. Habitat and recreational enhancements at Silver Lake. Additional funding will also be provided for Trustee work on the lake.
  - d. Unkamet Brook Area habitat improvement, including rerouting of the brook to its original location and removal of certain nuisance plant species.
  - e. At the GE Plant Site south of East Street, in a 200-foot-wide strip along the river between the location of the former Thermal Oxidizer and the downstream boundary of the GE facility, enhance stormwater drainage and create vegetated buffer by removing the pavement and replacing it with clean soil and vegetation.
  - f. Herbaceous native grassland communities will be created at certain GE-owned properties along the Housatonic River and on the GE Plant, including the area described in item e above, the Newell Street Parking Lot, the Lyman Street Parking Lot, and the Hill 78 Consolidation Area.
  - g. Floodplain forest/wetland community will be created on approximately 12 acres of riparian land, which will be protected through a conservation easement.
  - h. Protection of 10 acres of wetland on GE Plant Site east of Unkamet Brook through a conservation easement.
  - i. Payment by GE of \$600,000 for wetlands mitigation.
3. GE will conduct an assessment of the integrity of Woods Pond Dam and Rising Pond Dam, and implement interim measures needed, if any, to ensure the integrity of these dams.
  4. GE will coordinate with the Trustees and EPA in the design, implementation and maintenance plans for the restoration/enhancement activities identified in II.B.2.
  5. The Pittsfield Economic Development Authority (PEDA) will pay up to \$ 4 million dollars based on a revenue-sharing arrangement linking the anticipated success of the economic redevelopment in Pittsfield with the additional natural resource damage compensation. The \$4 million will be administered by the natural resource trustees, with appropriate public input, for natural resource restoration projects.

### **III. Recovery of Government Costs**

GE and governments have agreed on the amount GE will pay to reimburse response costs previously incurred and to be incurred by the governments in connection with the site. The details regarding the specific reimbursement amounts can found in Section XX of the Consent Decree.

### **IV. Form And Effect of The Consent Decree**

A. The settlement agreement is in the form of a federal court Consent Decree. The Consent Decree includes, among other provisions:

1. EPA review and approval rights on all plans in the Consent Decree.
2. EPA ability to modify the scopes of work being implemented by GE under the Consent Decree; (see Paragraph 39 of the Consent Decree)
3. Periodic review by EPA of the cleanup; (see Section X of the Consent Decree)
4. Emergency response provision; (see Section XIX of the Consent Decree)
5. Dispute resolution processes; (see Section XXIV of the Consent Decree)
6. Stipulated penalties for inadequate or late work by GE; (see Section XXV of the Consent Decree)
7. Agreements by the governments and GE not to sue each other subject to certain reservations; (see Section XXVI and XXVII of the Consent Decree)
8. EPA to have the ability to take over work if GE is not performing adequately, or to order additional work by GE if new information or unknown conditions show the cleanup is not protecting human health or the environment (see Paragraph 178 of the Consent Decree); and
9. Protection for GE from certain 'contribution' claims by other parties (see Section XXIX of the Consent Decree).

B. EPA agrees to defer final decision making on listing the Site on the CERCLA National Priorities List (NPL) (see Paragraph 200 of the Consent Decree). EPA may finalize listing the Site, under certain conditions, including if EPA concludes that a situation exists where it needs to take over the cleanup work under the Consent Decree due to inadequate performance by GE, subject to GE's right to dispute resolution.

In addition to the provisions of the Consent Decree, the following other important components will be implemented at the Site.

#### **Enhanced Public Participation**

Objective: to implement this agreement in a manner that considers and utilizes the ideas of the citizens of Berkshire County.

A. A Citizen's Coordinating Council has been established to serve as a focal point for community participation in the cleanup. The Council includes leaders from Berkshire County's political, environmental, community, and business sectors. The Council has provided and will continue to provide an important mechanism to ensure that all of the settling parties fully honor their commitment to listen to, learn from, and incorporate the ideas and concerns of the community to the greatest extent possible. The governments intend to submit drafts of major technical documents to the Citizens Coordinating Council for review and discussion.

B. EPA will provide additional outreach to property owners affected by this agreement, including participating in and hosting public meetings, small neighborhood meetings and individual meetings.

### **Brownfields Redevelopment And Economic Aid**

Objective- to utilize the former GE facility for new development thus preserving undisturbed "greenfields".

GE, the City of Pittsfield and the Pittsfield Economic Development Authority (PEDA) have entered into the Definitive Economic Development Agreement. Under this agreement, GE will clean up its Plant Site to agreed upon Consent Decree standards (Item I.C.1), demolish several buildings, provide some funding for building new buildings and transfer portions of the property to PEDA for economic redevelopment. In addition, GE will provide economic aid to the City of Pittsfield for 10 years and make upgrades to the Plant Site and Silver Lake that will have aesthetic value and enhance local habitat.



---

**ATTACHMENT H**

**SELECTED EPA, MDEP, AND DPH FACT SHEETS**

---

# TABLE OF CONTENTS

## Title

- Upper Reach of the Housatonic River Engineering Evaluation/Cost Analysis Fact Sheet (July 2000)
- Process for Addressing Residential Properties Which May Have Received Fill Materials From the General Electric Company (July 19, 2000)
- Cleanup of Berkshire County & Housatonic River Off to Strong Start (March 1, 2000)
- Bureau of Environmental Health Assessment: Activities in Berkshire County (October 1999)
- Human Health Risk Evaluation and Ecological Risk Assessment Regarding PCB Contamination in Pittsfield: A Fact Sheet (June 1998)
- GE Pittsfield Fact Sheet: Upper Reach of Housatonic River (June 4, 1998)
- An Action Agenda for Economic and Environmental Recovery in Pittsfield and Berkshire County (April 6, 1998)
- USEPA and MADEP Environmental Update for the Berkshires (March 1998)
- Report of Attorney General Scott Harshbarger, Relative to the Workshop Held on February 5, 1998 Regarding Health Concerns Relating to PCB Contamination in Pittsfield and Southern Berkshire County (March 1998)
- Information Booklet for the Final Report on the Housatonic River Area PCB Exposure Assessment and Related Health Issues (September 1997)
- Polychlorinated Biphenyls (PCBs): A Fact Sheet (August 1997)
- Residential Properties Which May Contain Contaminated Fill From the General Electric Company (GE): Questions and Answers (August 7, 1997)
- What DEP is Doing to Clean Up Contamination in the Housatonic River (1993)
- PCBs in the Housatonic River and Floodplain Soil: Ways to Reduce Exposure (June 1993)
- Hazardous Contamination and Cleanup, General Electric Facility, Pittsfield, Massachusetts and The Housatonic River (Summer 1989)
- Hazardous Contamination and Cleanup (Fall 1988)
- Fact Sheet: PCB Contamination in the Housatonic River (October 1987)
- PCB Studies and Findings (November 1982)

---

**UPPER REACH OF THE HOUSATONIC RIVER ENGINEERING  
EVALUATION/COST ANALYSIS FACT SHEET (JULY 2000)**

---



---

# Upper Reach of the Housatonic River Engineering Evaluation/Cost Analysis Fact Sheet

## General Electric Housatonic River Project Pittsfield, Massachusetts

July 2000

---

### INTRODUCTION

This fact sheet provides an overview of the results and recommendations of the Engineering Evaluation/Cost Analysis (EE/CA). The EE/CA was performed to evaluate the potential removal actions for the Upper Reach of the Housatonic River from Lyman Street in Pittsfield, MA, to the confluence of the East and West Branches of the Housatonic River. This 1.5-mile stretch of river, referred to as the EE/CA Reach, is immediately downstream of the General Electric (GE) manufacturing facility in Pittsfield. EPA seeks public comment on this EE/CA and its supporting Administrative Record File.

### CURRENT ENGINEERING EVALUATION AND COST ANALYSIS

An EE/CA is an evaluation involving a comparison of potential removal action

alternatives using the criteria of effectiveness, implementability, and cost. Through the EE/CA process, EPA evaluates alternatives for mitigating the human health and environmental threats posed by the presence of polychlorinated biphenyls (PCBs) and other hazardous substances in river sediments and banks of the EE/CA Reach.

The EE/CA presents the following information:

- A site description including summaries of previous studies.
- Identification of the removal action and habitat restoration objectives for the EE/CA Reach.
- Identification of removal action costs.
- Comparative analysis of alternatives.

---

## **EPA INVITES PUBLIC COMMENT**

EPA invites public comment upon EPA's recommendations and upon the alternatives evaluated in the EE/CA. EPA will select a final removal action after considering public comments in a document called an Action Memorandum. EPA will hold a 31-day public comment period, from **July 17, 2000, through August 16, 2000**, to provide an opportunity for the public to participate in the selection of the 1.5-Mile Reach cleanup plan. During the comment period, the public is invited to review the EE/CA and its supporting Administrative Record File, which are available at the Information Repositories listed below, and to offer written or verbal comments. Pursuant to 40 CFR §300.415(n)(4)(iii), upon timely receipt of a request sent to EPA, within 2 weeks of the initiation of the comment period, the comment period will be extended by a minimum of 15 additional days.

EPA and the Massachusetts Department of Environmental Protection will conduct a public informational meeting at **7:00 p.m. on Tuesday, July 25, 2000**, to summarize the results of the EE/CA, to update the community on the investigation progress, and to answer questions about the investigations and findings. EPA will conduct a public hearing at **7:00 p.m. on Tuesday, August 15, 2000**, to accept formal verbal comments on the preferred alternative as presented in the EPA fact sheet. Both events will be held at the **Berkshire Athenaeum Public Library Auditorium**, 1 Wendell Avenue, in Pittsfield. A public informational meeting will be held in Connecticut at the Kent Town Hall in Kent on **Tuesday, August 8, 2000, at 7:00 p.m.**

The hearing will be transcribed and a copy of the transcript will be available at the Information Repositories. Interested citizens may submit written comments or offer verbal comments on the EE/CA at the hearing on August 15. While EPA uses public comments throughout site cleanup, EPA will only respond in writing to written comments submitted during the comment period or verbal comments submitted at the formal public hearing.

If you would like to comment in writing on the EE/CA, please mail your written comments (postmarked no later than **August 16, 2000**) to: Chet Janowski, Remedial Project Manager, One Congress Street, Suite 1100 (HBO), Boston, Massachusetts 02114; 617-918-1324; fax 617-918-1291; or by e-mail to [janowski.chet@epa.gov](mailto:janowski.chet@epa.gov).

Any general questions concerning the GE Pittsfield/Housatonic River Site should be directed to Angela Bonarrigo, EPA's Community Involvement Coordinator, at 617-918-1034.

The EE/CA and its supporting Administrative Record File will be available for public review and comment at the following locations:

EPA Records Center  
1 Congress St., Suite 1100  
Boston MA 02114  
617-918-1440

MA DEP  
436 Dwight St., Suite 500  
Springfield MA 01103  
413-784-1100

Lenox Public Library  
18 Main St.  
Lenox MA 01240  
413-637-0197

Simon's Rock College of Bard  
84 Alford Rd.  
Great Barrington MA 01230  
413-528-7370

Berkshire Athenaeum Public Library  
Reference Department  
1 Wendell Ave.  
Pittsfield MA 01201  
413-499-9488

Berkshire County Regional Planning Commission  
33 Dunham Mall  
Pittsfield MA 01201  
413-442-1521

CT DEP (Communications)  
79 Elm St.  
Hartford CT 06106  
860-424-4100

Kent Library  
32 North Main St.  
Kent CT 06757  
860-927-3761

---

## REMOVAL OBJECTIVES

The following removal action objectives were established by EPA:

- Remove, treat, and/or manage PCB-contaminated river sediments and riverbank soils to prevent human and ecological exposures exceeding risk-based levels.
- Eliminate or mitigate existing riverbank soil and sediment sources of contamination to the EE/CA Reach, prevent recontamination of previously remediated areas, and prevent downstream migration of contaminated sediments and bank soils.
- Minimize long- and short-term impacts on wetland and floodplain areas and enhance habitat in a manner consistent with the above objectives.

**Cleanup Criteria**—To achieve these objectives, EPA has established cleanup criteria for total

PCBs in the EE/CA Reach. These criteria are based on human and ecological exposures exceeding risk-based levels as presented in the EE/CA.

**Habitat Restoration**—Habitat restoration is necessary to meet applicable and relevant regulations as part of the response action and to meet the natural resource damage (NRD) objectives in accordance with the Consent Decree for the GE Pittsfield/Housatonic River Site, which was lodged in Federal District Court on October 7, 1999. Habitat restoration is also necessary to protect the regraded riverbed and riverbank from erosion.

Habitat restoration objectives will be met through a combination of regrading, revegetation, bioengineering, and potential installation of habitat improvements (e.g., low-stage dams, current deflectors, and boulders). The placement of habitat improvements and regrading will be conducted such that the flood elevations in the river are not significantly affected and flood storage is not reduced.

## SITE DESCRIPTION

The Housatonic River flowed through the City of Pittsfield in its natural state until the late 1930s/early 1940s when the U.S. Army Corps of Engineers (USACE) channelized the river within the City of Pittsfield, isolating oxbows from the main river channel. From the late 1940s until approximately the 1980s, these oxbows were backfilled with various materials, including materials from the GE facility. In addition, the Massachusetts Department of Public Works undertook flood control work based on reports by USACE.

In 1903, GE initiated operations at a site on the Housatonic River in Pittsfield. Three manufacturing divisions at the GE facility (Transformer, Ordnance, and Plastics) have used areas near the site. Although GE conducted many activities at the Pittsfield facility throughout the years, the activities of the Transformer Division were the likely primary source of PCB contamination. GE's Transformer Division activities included the construction and repair of electrical transformers, some of which contained PCBs. GE manufactured and serviced electrical transformers containing PCBs at this facility from approximately 1932 through 1977.

In the late 1960s, a PCB storage tank associated with GE Building 68 collapsed and released an estimated 1,000 gallons of liquid PCBs to the riverbank, surface water, and sediments. Visual contamination, including trap rock and sediments, was removed following the release; however, subsequent investigations in this area identified additional material, including dense nonaqueous phase liquid (DNAPL), that was not removed during the immediate response action or was the possible result of other spills.

Additional releases of PCBs to the environment included spills at the GE facility onto the ground

resulting in contamination of soil (some of which was used as fill at the facility and at off-site areas throughout Pittsfield), surface water runoff to Silver Lake and the river, and groundwater.

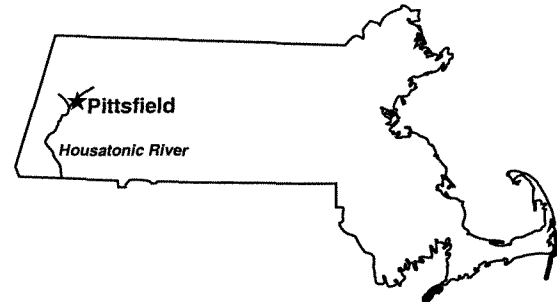


Figure 1: Location of Pittsfield and the Housatonic River

## PREVIOUS SITE INVESTIGATIONS

Numerous studies have been conducted on the Housatonic River including studies of sediment, soil, fish tissue, and benthic organisms collected from the river. These studies indicate that PCB contamination exists in the river from the outfall of Unkamet Brook (upstream of the EE/CA Reach) to the Massachusetts-Connecticut state line and beyond. The sources of contamination include the GE facility; the 0.5-mile stretch of river immediately upstream of the EE/CA Reach (known as the Removal Reach); Silver Lake, which discharges into the river in the EE/CA Reach; and former oxbow areas A, B, and C, which abut the river in the EE/CA Reach.

The U.S. Environmental Protection Agency (EPA) has determined that a removal action is needed to address unacceptable risks or threats to human health and ecological receptors in the Upper Reach of the Housatonic River. This determination was documented in the 26 May 1998 Combined Action and EE/CA Approval Memorandum (Action Memorandum).

## SCREENING OF TECHNOLOGIES

Numerous technologies to contain, remove, and/or treat the PCB contamination were identified and screened in the EE/CA. Technologies were considered for the following response actions:

- River diversion.
- Sediment and riverbank soil removal.
- In situ treatment and containment.

- Ex situ treatment.
- Ex situ containment/disposal.

The technologies considered for each response action were evaluated with respect to the criteria of implementability, effectiveness, and cost, as identified in the *EPA Guidance on Conducting Non-Time-Critical Removal Actions under CERCLA*.

## REMOVAL ALTERNATIVES

Three base alternatives for the removal of contaminated soil and sediment were developed for detailed analysis:

- **Base Alternative 1, Wet Excavation**—This alternative involves the removal of contaminated material from the river without river diversion.
- **Base Alternative 2, Dry Excavation: Sheetpiling (except in cobble reaches where Pumping Bypass will be used)**—This alternative involves removal of contaminated material from dewatered (dry) portions of the river using river diversion.
- **Base Alternative 3, Dry Excavation: Pumping Bypass for the Entire EE/CA Reach**—This alternative is the same as Base Alternative 2, except that diversion of the river would occur by pumping river flow around removal areas.

## DISPOSAL ALTERNATIVES

Four disposal alternatives for excavated soil and sediment (Disposal Options A through D) were developed and evaluated.

- **Disposal Option A (Consolidation at GE with Disposal of Excess at Off-Site Facilities)**—Excavated material will be staged, based on pre-construction sampling data, as either non-RCRA-regulated, TSCA-regulated, or RCRA-regulated waste. TSCA- and RCRA-regulated waste (approximately 14,900 yd<sup>3</sup>) and approximately 35,100 yd<sup>3</sup> of non-RCRA/non-TSCA regulated waste will be disposed of at the GE On-Plant Consolidation Areas. The remaining waste soils, estimated at 43,400 yd<sup>3</sup>, will be sent to an off-site disposal facility. The estimated cost of Disposal Option A is \$13.1 million.
- **Disposal Option B (Off-Site Disposal of All Excavated Material)**—This alternative is effective and implementable. The estimated cost of Disposal Option B is \$29.0 million.
- **Disposal Options C (Thermal Desorption Treatment with Off-Site Disposal) and D (Solvent Extraction Treatment with Off-Site Disposal)**—These disposal options would be conducted on GE's plant site. Both treatment processes are effective and implementable for

the removal of organic constituents from soil. Potential hazards associated with these treatment processes (e.g., chemical exposure or air emissions) can be minimized by managerial and engineered controls. The estimated costs of Options C and D are respectively \$55.3 million and \$44.4 million.

## RECOMMENDED ALTERNATIVE

The recommended alternative consists of a modified Base Alternative 2, Sheetpiling and Pumping Bypass, along with Disposal Option A. The recommended alternative was chosen based on what EPA believes to be the most effective and efficient approach to remediation in the EE/CA Reach.

In addition to the recommended alternative, it is proposed to allow the removal Contractor or EPA the flexibility to adjust field operations to take advantage of the Contractor's capabilities and experience as well as experience gained in observing the removal action in the Upper Reach 0.5-Mile Removal currently being performed by GE. One of the other excavation alternatives approved in the EE/CA could be implemented in instances where the Contractor can show, after EPA approval, that this alternative is a more effective and efficient approach to remediation.

The following subsections provide details on implementing the recommended alternative in specific subreaches of the EE/CA Reach.

### Lyman Street to North of Elm Street (Transect 64 to Transect 96): Sheetpiling

Beginning at the Lyman Street Bridge, sheetpiling would be installed from Transect 64 downstream to Transect 96 (Figure 2). Because sheetpiling cannot be installed under the Lyman Street Bridge, wet excavation, with in-stream diversion, is proposed for under the bridge.

Sheetpiling is proposed for this section primarily because the river abuts Oxbows A, B, and C. These oxbows were filled in with material from the GE plant site and are contaminated with PCBs. GE is required under the Consent Decree to further characterize the extent of contamination in these oxbows. Based on conditions encountered during the removal activities in the Upper Reach 0.5-Mile Removal, an unexpected source of nonaqueous phase liquid (NAPL) could be encountered.

EPA believes that sheetpiling will provide better excavation control in the smaller cells if NAPL is

found. If further bank sampling, currently in progress, determines that encountering NAPL is unlikely, then pumping bypass will be an allowed alternative. However, if the additional sampling indicates the possible presence of NAPL, then additional excavation may be necessary. The need for additional excavation and associated costs will be addressed in the final Action Memorandum.

**North of Elm Street to North of Pomeroy Avenue (Transect 96 to Transect 168): Pumping Bypass**

Pumping bypass is recommended from Transect 96 to Transect 168 (Figure 2), because it is the alternative that best accommodates the difficult conditions of this portion of the EE/CA Reach. From Transect 96 to the Elm Street Bridge, the factors that make it difficult to install sheetpiling or to use wet excavation are the steep slopes, the water depth, and the location of homes and businesses in this area.

In the section of river below the Elm Street Bridge to about Transect 154 (the cobble reach), sheetpile installation would not be possible because of the steep slopes, rapid river flow, and shallow depth to bedrock.

From Transect 154 to Transect 168, the river consists of residential properties on both sides. Sheetpiling is not recommended between these transects because of the limited access. Access requirements for pumping bypass are less than for sheetpiling and, therefore, will result in slightly less impact to the residents. Although wet excavation is possible for this section, this option presents a greater risk of allowing sediments to migrate downstream.

**North of Pomeroy Avenue to the Confluence of the East and West Branches (Transect 168 to Confluence): Sheetpiling**

Sheetpiling is recommended from Transect 168 to the confluence with the West Branch, except under the Pomeroy Avenue Bridge where wet excavation will be used (Figure 2). Bypass pumping could also be used in this section, including under the Pomeroy Avenue Bridge. However, the discharge for the bypass pump operation will have to be constructed below the confluence with or in the West Branch of the Housatonic River.

Wet excavation is not recommended below Transect 168 because water depth begins to increase, making the depth of excavation and sediment movement more difficult to control. The proximity to the confluence also presents a potential problem in trying to contain any movement of fines within the EE/CA Reach during the removal activities.

**Disposal Recommendation**

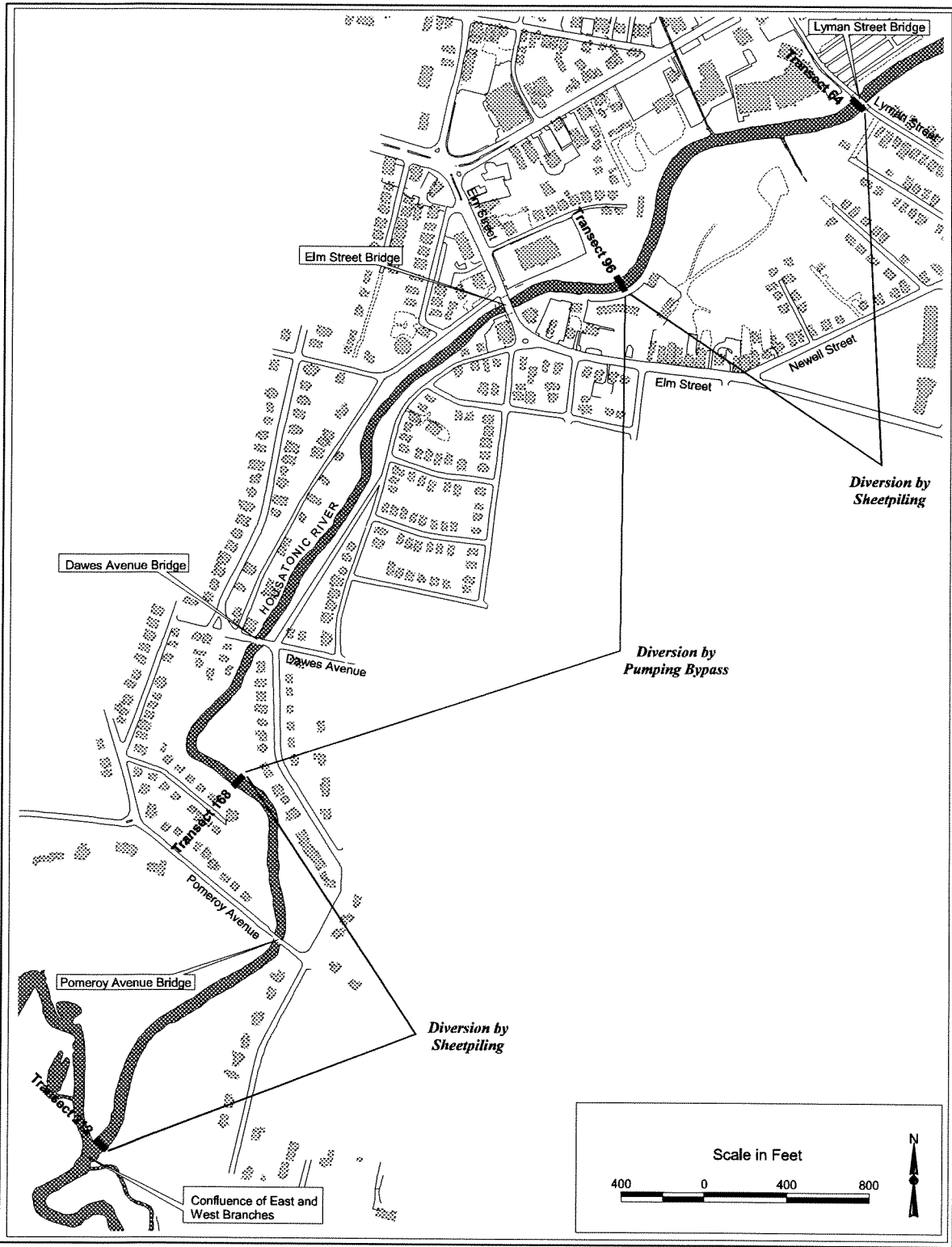
Disposal Option A is recommended. In addition, to reduce the volume of material sent to an off-site disposal facility, EPA recommends that an evaluation be performed to determine whether the sediments removed from the cobble reach can be screened effectively and efficiently to remove the cobbles (stone larger than 2 inches in diameter). The cobbles then can be mechanically cleaned or power washed and returned to the river. This could reduce the volume of soils sent off-site by as much as 5,000 yd<sup>3</sup> or even more. The screening operation could also be used during excavation in other parts of the streambed if significant amounts of cobble are found.

Disposal Options B, C, and D are not recommended due mainly to higher costs and the availability of on-plant consolidation space at the GE facility.

The estimated cost for the recommended alternative is \$40.7 million. This cost includes a base alternative cost of \$27.6 million and an Option A disposal cost of \$13.1 million. In accordance with the Action Memorandum Guidance Document (OSWER Directive 9360.3-01), these costs will be increased in the final Action Memorandum by 20% for contingency costs (\$8.1 million) as well as an adjustment for EPA costs (\$1.5 million). Costs in the final Action Memorandum may be further increased based on the results of the supplemental investigations and upon any NAPL response actions.

The recommended remedy will take approximately 3 to 5 years to complete based on observations of progress on the first 0.5-mile reach and depending on weather conditions and unanticipated field conditions. Work on the 1.5-mile reach cannot begin until GE has completed excavation in the 0.5-mile reach, which is currently projected for June 2001.



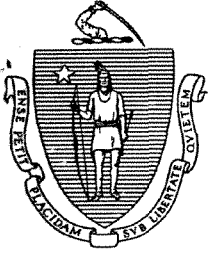


**FIGURE 2 - RECOMMENDED REMOVAL ALTERNATIVE**

---

**PROCESS FOR ADDRESSING RESIDENTIAL PROPERTIES WHICH  
MAY HAVE RECEIVED FILL MATERIALS FROM THE GENERAL  
ELECTRIC COMPANY (JULY 19, 2000)**

---



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WESTERN REGIONAL OFFICE

ARGEO PAUL CELLUCCI  
Governor

JANE SWIFT  
Lieutenant Governor

BOB DURAND  
Secretary

LAUREN A. LISS  
Commissioner

**Working Draft**

**Process for Addressing Residential Properties  
Which may have received Fill Materials  
From the General Electric Company**

**July 19, 2000**

**Introduction:**

The Massachusetts Department of Environmental Protection (DEP) is clarifying and revising its process for communicating with and involving owners of properties in and around Pittsfield that may have received contaminated fill materials that originated at the General Electric (GE) facility. These revisions are not intended to change the requirements of any Administrative Consent Order or the Massachusetts Contingency Plan (MCP).

The purpose of this document is to outline the process that DEP will use for the GE/Pittsfield Residential Fill Property Project. By issuing this document, DEP intends to improve communications between property owners, GE, and DEP, and to clarify a property owner's opportunities to provide input to DEP and GE as his/her property moves through investigation/cleanup. The process outlined below is flexible; it may be modified on a case-by-case basis, as the relevant parties agree.

DEP does not address specific access agreement language or compensation issues in this document, as these are matters initially between the property owner and GE. In existing and proposed revised Administrative Consent Orders, GE is required to make a good faith effort to obtain access to perform response actions.

This information is available in alternate format by calling our ADA Coordinator at (617) 574-6872.

436 Dwight Street • Springfield, Massachusetts 01103 • FAX (413) 784-1149 • TDD (413) 746-6620 • Telephone (413) 784-1100

Printed on Recycled Paper

**I. Determining Which Properties Get Sampled**

A. Initial Notice

Upon initial notice to or from a property owner that his/her property may contain contaminated fill, DEP will provide the owner with general information about PCBs, a "Question and Answer" document regarding the GE/Residential Fill Property Project (Q&A), a summary of this "process" document, and a list of DEP, GE and local citizen group contacts. DEP will provide any or all of this information to any interested party upon request.

B. DEP Review

Upon being contacted, DEP reviews all available information regarding a property, and makes an initial decision as to whether there is credible information that fill from GE's Pittsfield facility ("GE fill") was brought to the property. If the initial caller is not the current property owner, DEP will contact the current owner to discuss the information. DEP will identify whether the property warrants sampling. Typically, the properties fall into one of three general categories:

	<b>General Categories of Information</b>	<b>DEP Determination of Next Steps</b>
1.	Credible information of GE fill on the property (including, but not limited to, first-hand knowledge, observation of certain types of GE-related debris in the soil, or other credible information).	For properties that have credible information of GE fill, DEP sends a "Request for Evaluation/Investigation" letter to GE indicating the need to evaluate the information and sample the property.
2.	Obvious or likely fill on the property, but not necessarily linked to the GE facility (including, but not limited to, observation of residential trash or coal/wood ash debris in soil, indication of fill by the lay of the land).	For these properties, DEP decides the likelihood that fill material came from the GE facility, and refers some properties with a likely GE connection to GE for evaluation/investigation. Some properties may not be immediately referred, as DEP gathers more information. Some properties are not referred to GE because of a lack of information (See 3 below).
3.	No knowledge of fill on the property, but caller is concerned and wants to have property sampled to be sure.	Most of these properties are not referred to GE, unless additional information is discovered. These remain in DEP's database, and DEP informs the owner that DEP will not require sampling at this time.

For any property not referred to GE (and not sampled by DEP or EPA), DEP will provide the property owner with information on contacting the Berkshire Environmental Fund (BEF) for sampling. BEF was established in 2000 as a result of a settlement agreement between the Commonwealth of Massachusetts and GE. BEF funding is available for Community Improvement Grants, Educational Grants, and Sampling Grants.

C. Upon DEP's referral to GE

1. Interview

GE will schedule a meeting at the property with DEP, GE, and the property owner (and the initial caller if not the property owner) to interview the property owner and inspect the property. GE provides, in writing, to DEP the information collected at the meeting, which typically includes a standardized interview form completed by GE, based on the interview, and reviewed and signed by the owner.

2. GE's Sampling Determination

After the interview meeting, GE will determine whether it believes there is sufficient credible evidence of GE fill on the property and, if so, will sample the property. For any property where GE questions the level of credible information of GE fill and declines to sample after the interview process and discussions with DEP, if DEP still believes there is credible information of GE fill on the property, DEP will either require GE to sample, request EPA to sample, and/or will perform the sampling itself. If PCBs are present at levels greater than 2 ppm, DEP will generally require GE to continue the investigation. DEP will inform the owner of these events.

**II. Planning and Scheduling Sampling:**

When GE samples a property:

- A. GE will submit an initial sampling plan to DEP and the property owner for DEP's approval. DEP will provide the owner 10 days to submit his/her comments.<sup>1</sup> If sample locations or depths do not correspond with the owner's areas of concern, or the owner has any other comments, the owner should comment to DEP within the 10-day comment period. DEP will incorporate the comments, as appropriate, into DEP's approval of the initial sampling plan.
- B. Upon receiving approval from DEP (such approval may be verbal), GE will schedule the sampling crew, call Dig Safe, and obtain Conservation Commission approval for sampling (if necessary). Also, it has been GE's practice to send the owner a proposed access agreement to allow GE and its contractor access to the property for sampling purposes only. GE will notify the property owners at least 24 hours in advance of the sampling crew arriving on the property. The property owner may request more advance notice if they so desire.
- C. Sampling generally takes place within one month of DEP's approval of the sampling plan.
- D. GE will provide at least seven (7) days notice to a property owner if the property is reasonably expected to be discussed at a Conservation Commission meeting or other municipal or public hearing. DEP will notify the property owner at least seven (7) days prior to any such meeting held by DEP.

---

<sup>1</sup> DEP will consider all comment periods (for property owners referenced in this document) to start on the day after the date of the relevant document.

### **III. Reporting and Review of Sampling Results**

Sample results are reported as follows:

- A. For all properties sampled, GE will generate a report and a map of the property with the PCB data and sample locations shown on the map, and a written description of the sampling event. This report is sent to DEP and the property owner, generally within 45 days of the samples being collected. GE will attach a cover letter with the sample results sent to the property owner, and a short description of what step(s) GE proposes to take next. DEP will provide the owner a 10-day comment period from the day the owner receives the plan in which to provide comments to DEP.<sup>2</sup>
- B. Within the 10-day comment period, DEP will call the property owner to discuss the results. If additional sampling is necessary, DEP will discuss the proposed sample locations with the property owner.
- C. DEP will incorporate the property owner's comments, as appropriate, into DEP's approval of the second sampling plan. DEP may verbally approve this plan, with or without modifications, and will do so as soon as possible after receipt of the property owner's input or the 10-day comment period, whichever comes first.
- D. If PCBs are not detected over 2 ppm in any sample, DEP typically requires no further sampling. In that event, the owner will have a 10-day comment period to provide comments to DEP. Nonetheless, even if no additional sampling or other response actions are required, DEP would require additional sampling if and when new information is discovered which would indicate that an area of potential fill was not sampled adequately.

### **IV. Delineation of PCB Contamination**

The above process of sampling and reporting may be repeated until DEP believes the extent of PCB contamination over 2 ppm is defined at the property. For an average-sized residential property, this may involve three (3) or four (4) separate sampling events, unless the initial sampling covers the entire property. If sampling shows contamination on adjacent properties, the sample reports and plans may be grouped together, so a property owner may continue to get sample reports showing results on these adjacent properties, even though sampling on his/her own property may be completed.

### **V. Evaluating PCB Data and Averaging**

- A. When the extent of PCB contamination has been delineated on a property, GE determines (subject to DEP approval) if the average PCB levels are above 2 ppm in two (2) depth intervals (the "exposure areas"): 1) the top 1' of soil; and, 2) depths greater than 1' below grade to the bottom of the contamination.

---

<sup>2</sup> If PCBs are detected at over 10 ppm in a surficial soil sample (the sample closest to the surface within 0-12" from grade), DEP and/or GE will call the property owner (prior to GE's written report) to explain the results and discuss what activities will follow (typically, generation of a written report and additional sampling).

- B. If the average PCB level is below 2 ppm in each of the two exposure areas, and there are no "hot spots" as defined in the MCP, GE may submit a Class B Response Action Outcome (RAO) statement to DEP with a copy to the property owner (see the Q&A document for this project for a definition of a hot spot). A Class B RAO means the cleanup standard is already met without performing further response actions, and that the property is safe for unrestricted residential use. Prior to DEP's decision whether to approve the RAO, DEP will provide a 30-day comment period for the property owner to contact DEP with any comments. Upon request, DEP and GE would meet with the property owner to discuss the RAO. DEP will approve or deny the RAO submittal after the 30-day comment period. DEP will send a copy of its decision to the property owner.
- C. If the average PCB level is above 2 ppm in either depth interval, or there is a hot spot, GE will submit a Remedial Action Work Plan (RAWP) for soil removal to meet DEP's cleanup standard. For PCBs, the cleanup standard is an average of 2 ppm PCBs in both exposure areas. DEP will provide the owner with 10 days to comment on the RAWP prior to any DEP decision to approve it. DEP will also call the property owner to ask if the owner has any comments or questions. The RAWP will have proposed sample locations for non-PCB contaminants, and DEP may verbally approve these sample locations, with or without modifications, as soon as possible after discussing the locations with the property owner. DEP will approve, conditionally approve, or disapprove the RAWP, as appropriate.

## **VI. Pre-mobilization Meeting(s)**

After DEP approves a RAWP, but before any excavation work, GE will schedule a pre-mobilization meeting with the property owner and DEP to discuss the proposed remediation, logistics, restoration details, and to answer any questions. If significant issues remain unresolved after one pre-mobilization meeting and the subsequent documentation process, DEP may attend any additional meetings, answer questions, and/or take other appropriate steps to help resolve those issues.

The pre-mobilization meeting usually results in a list of restoration items to which GE and the property owner agree. GE typically confirms in writing the list of restorations, and the list may be referenced in any access agreement that the property owner and GE agree upon for the work on the property (this would be separate from a previous access agreement for GE to conduct sampling).

## **VII. Remediation/Restoration**

- A. Remediation work is scheduled and implemented after DEP approves the RAWP and GE obtains any necessary Conservation Commission permits. When the rough backfilling of excavated areas is completed, GE's contractor completes the final restoration work, including lawn replacement, plantings, trees, etc. DEP staff inspects the work regularly during remediation, restoration, and upon completion of restoration work. The property owner may request a meeting at the property at any time before, during and after the remediation and restoration work. DEP may temporarily halt work, if necessary, to address any serious matters. DEP encourages property owners to call DEP or GE immediately if a problem is perceived by the property owner at any point in the process.

- B. GE will make a reasonable effort to determine the drainage characteristics of an owner's property prior to remediation work, and should assure that the drainage of the restored property is comparable to the conditions that existed prior to remediation. If drainage at the property was not adequate prior to remediation, the property owner may work with GE to decide on what improvements, if any, may be performed during restoration work, although GE is not obligated to improve the drainage characteristics on a property over pre-remediation conditions.

#### **VIII. Final Inspections, Final Documentation/RAO**

- A. A final inspection/meeting will be scheduled soon after the majority of the restoration work has been completed. At a minimum, GE's representatives should be present, and DEP will attend if requested to do so by the property owner or GE. Any outstanding issues will be documented and followed up by the appropriate contact person.
- B. After cleanup and restoration are complete, GE will submit a Class A RAO statement to the property owner and DEP, for DEP's approval. The Class A RAO is the comprehensive, final documentation required by DEP for a property that is cleaned up, and it documents that any GE fill-related contamination remaining after the cleanup presents no significant risk to human health or the environment. Prior to DEP's decision whether to approve the RAO, DEP will provide the owner with 30 days to comment. DEP will approve or deny the RAO submittal, as appropriate, after the 30-day comment period. DEP will send a copy of its approval letter to the property owner.

#### **IX. Periodic Inspections of Restored Properties**

GE will inspect all plantings, trees, lawns, driveways, sidewalks and any other restored items at least two (2) times per year (spring and fall) for two (2) years after the completion of the project. GE will notify the property owner prior to the inspection, and will schedule the inspection so that the property owner can be present, if the property owner so desires. If property owners observe problems with the restored items between inspections, they are encouraged to report these observations to GE or DEP, as soon as possible, and to request that a GE representative meet with the property owner and inspect the property. DEP will attend these meetings and inspections if requested by the property owner or GE.

#### **X. Dispute Resolution**

If GE invokes the Dispute Resolution provisions of the Administrative Consent Order (ACO) specific to a property owner's site, and the owner wants to participate in DEP's resolution of the dispute, DEP will accommodate the owner's input, as appropriate, on a case-by-case basis (e.g., the owner's submission of written comments to DEP and/or by verbal comments conveyed during a meeting with the owner) consistent with the ACO process. Also, if a property owner disagrees with a DEP decision or proposed decision after having commented and discussed the matter with DEP, and desires further DEP review, DEP will provide the owner with an opportunity to review such decision with DEP senior management.



---

**CLEANUP OF BERKSHIRE COUNTY & HOUSATONIC RIVER OFF TO  
STRONG START (MARCH 1, 2000)**

---



## Cleanup of Berkshire County & Housatonic River off to Strong Start

Progress Update: March 1, 2000

After decades of unacceptable delay, the cleanup of PCB contamination in Berkshire County and the Housatonic River is well underway. Enormous progress has been made in the past two years on the cleanup of the river, the GE plant site and numerous other properties in Pittsfield. Most of these achievements are a direct result of two years of settlement negotiations and the subsequent lodging of a proposed Consent Decree in federal court last fall. Listed below are a few of the highlights:

**\* Cleanup of First Half-Mile of the Housatonic:** Cleanup work in the first half-mile of the river began last October, just days after the Consent Decree was lodged in federal court for public comment. Slated for completion by May 2001, the cleanup is designed to remove PCB-contaminated sediments, prevent downstream transport of PCBs, improve the river as a habitat for fish and wildlife and allow for safe recreational use of the river. To date, GE has removed more than 1,500 cubic yards of river sediments, 400 cubic yards of contaminated bank soils and treated 10 million gallons of river water. Jump starting the cleanup before the court has even approved the Consent Decree is nearly unprecedented.

**\* Source Control Work at GE Plant Site:** At EPA's direction, GE continues to move forward with work to investigate and eliminate all potential sources of contamination to the river from its Pittsfield property and other filled oxbow properties that abut the river. Extensive subsurface investigations and evaluations have been conducted along the section of river that abuts the GE property and the former oxbows. This new and improved source control program included the installation of more than 80 additional soils borings/monitoring wells, the construction and enhancement of several oil recovery systems and the installation of containment barriers to prevent any oil from entering the Housatonic. The Consent Decree includes provisions requiring GE to also address any new discoveries of oil that could potentially impact the river. In 1999 alone, this program resulted in 40,000 gallons of oil being removed and 50 million gallons of groundwater being treated. EPA will require GE to continue extracting and containing oil until we are satisfied that oil will not enter the river.

**\* Cleanup of Next 1½ Miles of River:** At today's Citizens Coordinating Council meeting, EPA will present a draft report about cleanup alternatives for the next 1½ miles of the Housatonic between Lyman Street and the confluence of the river's East and West Branches. Actual work will begin after the first ½-mile is cleaned up. The report, known as an Engineering Evaluation/Cost Analysis (EE/CA), focuses on various engineering options for removing contaminants and the costs. EPA prepared the report after collecting and analyzing hundreds of water, sediment and banksoil samples in and along the river. Following extensive public input and review from EPA Headquarters and other government agencies, EPA will propose a preferred removal action this summer. The proposal will be subject to a formal 30-day public comment period before a final decision is made.

\* **Allendale School Cleanup:** This unprecedented cleanup last summer resulted in the removal of 41,000 cubic yards of contaminated soils from the school's backyard and a restoration that has made the playground an attraction to both children and adults. Most importantly, all of the contaminated soil work was done through the summer school vacation and not one day of school was lost as a result.

\* **Residential Property Cleanups:** In the past two years, more than 100 residential properties in Pittsfield have been cleaned up under MA-DEP supervision. GE is scheduled to clean up an additional 29 properties during the upcoming construction season. A GE-financed fund of more than \$1 million will soon be available to property owners for additional sampling of properties. The fund, which is being administered by four community members that make up the Berkshire Environmental Trust, will be used in situations where GE would not otherwise be required to sample.

\* **Redevelopment Work at GE Property:** GE has begun demolishing many of the property's most unsightly features, including several tanks along Silver Lake Boulevard, large smokestacks used by the old powerhouse and a utility bridge that extended over East Street. Large scale demolition is slated to take place through next year, after which time new modern business facilities will be built, much of it at GE's expense. The City of Pittsfield and the Pittsfield Economic Development Authority have already attracted some prospective tenants, including EV Worldwide, an electrical vehicle manufacturer that is expected to use the site and provide upwards of 1,000 jobs over the next five years.

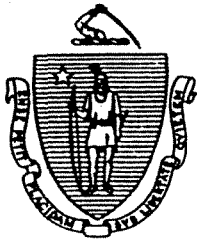
\* **Housatonic River Investigations and Risk Studies:** EPA continues to make progress on a massive effort to investigate the river below the confluence of the East and West Branches. This work will continue over the next year. The result will be a better understanding of potential health and ecological risks posed by PCB contamination, the ability to predict the river's recovery given certain cleanup scenarios and, ultimately, a decision on how to best clean up the rest of the river.

\* **Public Participation:** Early in the settlement negotiations with GE, EPA insisted on forming a Citizens Coordinating Council so that the public would have a forum for assisting the agency in future cleanup decisions. The 36-member group that was formed in the fall of 1998 has been very valuable in providing a diverse range of community opinions, some of which resulted in substantive changes between the "agreement in principle" and the final agreement proposed last fall. EPA expects the CCC will continue to play a valuable role in helping to critique EPA and GE cleanup proposals over the next several years. EPA has worked long and hard to make sure the community's interests were well represented, as evidenced by the prompt cleanup of Allendale School and the jump-start of the half-mile river cleanup.

---

**BUREAU OF ENVIRONMENTAL HEALTH ASSESSMENT:  
ACTIVITIES IN BERKSHIRE COUNTY (OCTOBER 1999)**

---



The Commonwealth of Massachusetts  
Executive Office of Health and Human Services  
Department of Public Health  
250 Washington Street, Boston, MA 02108-4619

ARGEO PAUL CELLUCCI  
GOVERNOR

JANE SWIFT  
LIEUTENANT GOVERNOR

WILLIAM D. O'LEARY  
SECRETARY

HOWARD K. KOH, MD, MPH  
COMMISSIONER

## **Bureau of Environmental Health Assessment: Activities in Berkshire County**

(as of October 1999)

### **Housatonic River Area PCB Exposure Assessment Study** (released September 1997)

This report is an exposure assessment survey of randomly selected South Berkshire County households located near the Housatonic River. The study included 800 households with 1,529 individuals. From this, 120 individuals, whose survey responses indicated greatest opportunity for exposure, were selected for serum PCB testing and 69 participated. Following this, the study was opened up to volunteers throughout Berkshire County. Sixty-five households, including 126 individuals participated in the survey, and of these, 79 had serum PCB testing. The exposure assessment and the volunteer studies found that the average PCB serum levels among participants was 4.49 ppb and 5.77 ppb, respectively. These results are generally within the normal background range for non-occupationally exposed individuals in the U.S. Older age, frequent fish consumption, and occupational exposure were factors that contributed to higher serum PCB levels.

### **Hotline Follow-Up Report: 1-800-240-4266**

In the summer of 1997, residential properties, schools, playgrounds, and other properties were discovered to contain PCB contaminated fill. In response to health concerns, MDPH established a toll free hot line number. Through this hotline, MDPH provides an ongoing service to answer residents' questions about PCBs and provide exposure assessment interview and blood test to those who are interested in knowing their serum PCB level. To date, approximately 160 people have had blood tests performed. A report will be developed summarizing the results.

### **Public Health Assessments**

Public health assessments are comprehensive tools to evaluate relevant environmental data, health outcome data, and community concerns associated with the site where hazardous substances (mainly PCBs for this site) have been released. The goal of a public health assessment is to identify populations for which more extensive public health actions or studies are indicated. MDPH, with funding support from the U.S. Agency for Toxic Substances and Disease Registry (ATSDR), is developing public health assessment reports for ten separate areas of the GE site. These will be released for public comment during 2000.

### **Descriptive Cancer Analysis**

MDPH is conducting a small area analysis of cancer incidence in the Housatonic River Area communities using information from the Massachusetts Cancer Registry. For this project, the cancers of greatest concern relative to PCB exposures as well as cancers found to have been elevated in the past will be evaluated (e.g. bladder cancer, liver cancer, breast cancer, and non-Hodgkin's lymphoma) for the towns of Pittsfield, Lenox, Lee, Stockbridge and Great Barrington. Mapping will be done, and observations of time and geographic area will be made including an analysis of temporal and geographic trends.

### **PCB Expert Panel Meeting**

An independent panel of national experts convened by the Executive Office of Health and Human Services, which met in January 1999. The charge to the Panel was to review, assess, and summarize the most up-to-date published and ongoing research on PCBs and public health, with special emphasis on the latest information on typical levels in the U.S. of PCBs in blood serum and the public health significance of these levels; the adverse health outcomes (i.e., reproductive/developmental, cancer, neurotoxic and immunological effects) associated with exposure to PCBs; the relative importance of the human exposure pathways (such as air, water, soil, and food, including breast milk) and the interactions between PCBs and other chemicals. The final written report of the Expert Panel findings will be presented at a public meeting in Pittsfield.

### **Berkshire Environment and Breast Cancer Pilot Study**

Known risk factors for breast cancer only account for approximately 40% of all breast cancer cases. Exposure to xenoestrogens (compounds that mimic estrogen or affect estrogen production and metabolism) such as PCBs and DDE has been raised as a concern in the development of breast cancer. In light of this, MDPH and others have focused attention on the possible role certain environmental exposures may play in the development of this disease. This pilot study of newly diagnosed breast cancer patients and a healthy comparison group aims to address questions about how breast cancer, its treatment and other factors can affect the levels of PCBs and DDE in serum over time.

### **Occupational Feasibility Study**

MDPH is currently evaluating the feasibility of conducting follow-up health studies of workers at the General Electric facility at Pittsfield, MA. The feasibility study has involved review of the availability of records of active, retired, and former employees; availability of information on work histories for individual employees that would allow for an exposure metric to be reliably developed; and a full discussion of limitations to determine whether epidemiologically meaningful results can be achieved.

### **Education and Outreach**

MDPH staff have participated in a variety of efforts to inform the community about these important environmental health concerns. Some of these activities include: Grand Rounds at the Berkshire Medical Center and North Adams Regional Hospital; establishment of an advisory committee; invited participation in topic-specific community forums; MDPH-sponsored community meetings to listen to residents' concerns.

**For more information, call 1-800-240-4266**

---

**HUMAN HEALTH RISK EVALUATION AND ECOLOGICAL RISK  
ASSESSMENT REGARDING PCB CONTAMINATION IN PITTSFIELD:  
A FACT SHEET (JUNE 1998)**

---



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

June 1998

## FACT SHEET

OFFICE OF THE  
REGIONAL ADMINISTRATOR

### Human Health Risk Evaluation and Ecological Risk Assessment Regarding PCB Contamination in Pittsfield

#### SUMMARY

The U.S. Environmental Protection Agency's New England Office recently completed risk evaluations on human health and ecological impacts on a two-mile section of the Housatonic River. The two evaluations document the widespread prevalence and high concentrations of PCBs in and along the two-mile section of river and the significant human health and environmental risks from exposure to those PCBs.

Among the findings:

- \* Young children and teenagers playing in and near portions of the river face noncancer risks that are 200 times greater than EPA considers safe. Noncancer effects from PCBs may include liver and nervous system damage and developmental abnormalities, including lower IQs.
- \* Teenagers growing up near portions of the river face a 1 in 1,000 cancer risk due to exposure to contaminated riverbank soils.
- \* Fish collected in the river had PCB concentrations of up to 206 parts per million, among the highest levels ever found in the United States and 100 times higher than the limits set by the U.S. Food and Drug Administration.
- \* 91 of 93 sediment samples taken in the Upper Reach of the river showed the presence of PCBs.

These risk evaluations, which were peer reviewed and endorsed by EPA Headquarters, support EPA's position that the entire two-mile section of river may present an imminent and substantial endangerment to human health and the environment. These evaluations justify removal actions for the Upper Reach section of the river. The actions also are based on data showing that previously cleaned-up floodplain areas are being recontaminated by PCBs from the river during routine flooding.

#### HUMAN HEALTH RISK EVALUATION

The Human Health Risk Evaluation, co-authored by the Massachusetts Department of Environmental Protection, examined cancer and noncancer risks to humans based on PCB contamination levels in river sediments, riverbank soils and backyard soils as well as consumption of fish caught in the river.

The risk evaluation focused primarily on health risks from short-term PCB exposures - less than 10 years of exposure. The study assumed exposure to PCB-contaminated sediments and soils when residents were walking, playing and sitting in and alongside the river. The exposure is primarily through skin contact with PCB-contaminated soil and sediments, and incidental ingestion of dust.

The health risk evaluation concludes that there are significant human health risks along the entire two-mile stretch



of river. Some of the highest human health risks are in the lower 1½ miles of the Upper Reach. This is due both to high PCB levels in this area - average PCB levels in shallow river sediments, for example, are nearly five times higher downstream than in the first 1/2-mile section - and higher exposure rates since portions of the lower section of river are more residential and more accessible than the top 1/2-mile section.

Among the highlights in the human health risk evaluation:

#### **Noncancer Risks - Potential Effects such as Reproductive and Developmental Abnormalities (such as Lower IQs), Liver Damage, and Adverse Impacts on Nervous Systems**

\* Young children playing for just one summer in the river in portions of the lower section - specifically, a 1/2-mile area between the Elm Street and Dawes Avenue Bridges - face noncancer risks 200 times higher than the hazard-index level EPA considers safe. This estimated risk assumes exposure to PCB-contaminated surface sediments in the river. PCB levels in this area averaged 89 parts per million, nearly five times higher than the 19 ppm average in the top 1/2-mile section between Newell and Lyman Streets.

\* Children, ages 5 to 12, who live or play alongside the river between the Elm Street and Dawes Avenue Bridges face noncancer risks 90 times higher than the hazard-index level EPA considers safe. This estimated risk assumes springtime and summertime exposure to PCB-contaminated riverbank soils and floodplain soils.

\* Teenagers who live or play alongside the river face noncancer risks 200 times higher than the hazard-index level EPA considers safe. This estimated risk assumes springtime and summertime exposure to PCB-contaminated soils while walking and playing on the riverbanks in the vicinity of the GE plant between the Newell Street and Elm Street Bridges.

\* A nine-year-old child who consumes one meal of fish from the Housatonic River each week for just one summer faces noncancer risks about 900 times higher than the hazard-index level EPA considers safe.

#### **Cancer Risks**

\* Some sections of the two-mile stretch of river pose an increased cancer risk beyond levels that EPA considers acceptable. As an example, teenagers who grow up alongside the river - in the vicinity of the Newell Street and Elm Street Bridges - face a 1 in a 1,000 cancer risk due to their exposure to contaminated riverbank soils.

#### **ECOLOGICAL RISK ASSESSMENT**

The Ecological Risk Assessment evaluated the environmental impacts PCBs are having on water quality and aquatic species along the two-mile Upper Reach section of the river. The assessment was based on recent surface water, sediment and fish data collected by GE, EPA and the U.S. Geological Survey.

\* Of 93 sediment samples taken from the two-mile section of river, 91 showed the presence of PCBs, with the highest concentration being 905 parts per million. Sixty-two of the 93 samples had PCB concentrations that would cause severe impacts on most aquatic species.

\* Fish collected in the river had PCB concentrations of up to 206 parts per million. Based upon effects observed in other scientific studies, the ecological assessment concludes that the PCB levels would have adverse reproductive impacts on fish and on animals that rely heavily on fish in their diet such as heron and otter.

\* The EPA's Ambient Water Quality Criteria (AWQC) for PCBs in the middle part of the two-mile river section was exceeded in nine out of 10 months during a recent sampling period in 1996 and 1997.

---

**GE PITTSFIELD FACT SHEET:  
UPPER REACH OF HOUSATONIC RIVER (JUNE 4, 1998)**

---



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION 1  
JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

June 4, 1998

OFFICE OF THE  
REGIONAL ADMINISTRATOR

Dear Resident:

The U.S. Environmental Protection Agency's New England Office recently completed risk evaluations on human health and ecological impacts on a two-mile section of the Housatonic River from the GE facility in Pittsfield to the river's confluence with the West Branch. The two evaluations document the widespread prevalence and high concentrations of PCBs in and along the two-mile section of river and the significant human health and environmental risks from exposure to those PCBs.

Among the findings:

- \* Young children and teenagers playing in and near portions of the river face noncancer risks that are 200 times greater than EPA considers safe. Noncancer effects from PCBs may include liver and nervous system damage and developmental abnormalities, including lower IQs.
- \* Teenagers growing up near portions of the river face a 1 in 1,000 cancer risk due to exposure to contaminated riverbank soils.
- \* Fish collected in the river had PCB concentrations of up to 206 parts per million, among the highest levels ever found in the United States and 100 times higher than the limits set by the U.S. Food and Drug Administration.
- \* 91 of 93 sediment samples taken in the Upper Reach of the river showed the presence of PCBs.

The high levels of PCB contamination in the Upper Reach of the Housatonic are cause for prompt, thorough clean up action. They support EPA's position that the entire 2-mile section of river needs to be addressed. Nevertheless, they are not cause for widespread panic. Activities that present the most likely routes of exposure for Pittsfield residents to PCBs – touching or ingesting PCB-contaminated soil, or eating PCB-contaminated fish – can be avoided. The enclosed fact sheet will help you keep your families safe while the government and General Electric work on plans for cleaning up the contamination.

While precautionary measures can be taken in the short term, the hazard should be eliminated so that the community does not have to always be on guard. It is the EPA's concern for citizens' health that is driving the agency's actions to clean up the heavily contaminated 2-mile section of the Housatonic from the GE facility to the confluence of the East and West branches.

This is also why EPA has issued an order to GE to begin this work. We have issued the order with a delayed effective date of August 14, 1998, so that GE will have an opportunity to do the work voluntarily. We will not put the order into effect before the August 14 date as long as GE meets the

work deadlines set out in the order and as long as they return to the negotiating table and negotiate in good faith toward a comprehensive settlement that addresses the clean up of the river, clean up and redevelopment of the GE facility, and compensation for natural resource damages.

For more information on PCB health effects or the recent human health and ecological risk assessments or more information regarding steps to clean up PCB contamination in Pittsfield, please contact us at 413-499-9325.

We are dedicated to protecting the public health of the citizens of Pittsfield and remain committed to taking the steps necessary to achieve these goals. We appreciate your support and are happy to respond to any questions or comments you may have.

Sincerely,

A handwritten signature in black ink, appearing to read "John P. DeVillars". The signature is fluid and cursive, with a long horizontal stroke at the end.

John P. DeVillars  
Regional Administrator

Enclosure

The U.S. Environmental Protection Agency has completed an evaluation of the health risks posed to the public from exposure to high levels of PCBs in the Housatonic River sediments, bank soils and flood plain soils. PCB contamination is present in the sediments, bank soils and flood plain soils in the upper 2-mile reach of the river, which runs from the GE facility in Pittsfield to the river's confluence with the West Branch. The risk evaluation focuses on potential exposures of children and teenagers to PCBs while walking and playing in and alongside this section of the river and concludes that there are unacceptably high health risks associated with these exposures.

The EPA's River Order requires GE to remove the heavily contaminated sediments and bank soils in the first ½ mile of the Upper Reach. Removal of the PCB contamination in this stretch of the Housatonic River is an essential step for protecting public health. This fact sheet highlights some of the key routes of exposure to contaminated sediments and soils along the 2-mile river section and suggests measures that should be taken to limit contact especially during the upcoming summer months.

- 
- *Children and teenagers walking, playing, climbing up and down the banks to the water's edge, fishing, swimming or wading in and along the 2-mile Upper Reach of the river may be exposed to PCB contaminated sediments and soils.*
  - *PCB levels in fish from the Housatonic River are among the highest found in the country.*
- 

There are three primary means through which people can be exposed to PCB contamination in and around the Housatonic River:

- Eating fish from the river.
- Children accidentally ingesting PCBs, for example by sticking hands covered with contaminated soils or sediments in their mouths.
- Skin contacting contaminated soils and sediments long enough to absorb contamination.

## **Precautions:**

1. Obey the fish consumption advisory for the Housatonic River and Silver Lake. Do not eat other wildlife such as frogs or turtles caught in the Housatonic River or Silver Lake.
2. Minimize activity that could result in skin contact with PCB contaminated soil or sediments, for example, avoid climbing up and down the banks to the water's edge, swimming, wading, walking or playing in and alongside the river.
3. Minimize skin contact with soils and sediments by wearing long-sleeved shirts, long pants and shoes. Promptly wash exposed skin, especially hands, with soap.
4. Avoid tracking soil from this stretch of the river into your home. Clean your shoes thoroughly or leave them outside your house.

## PCBs:

- PCBs (polychlorinated biphenyls) are man-made chemicals used since 1926 in electric transformers as coolants and insulators. GE used PCBs for manufacturing and servicing electrical transformers at the Pittsfield facility from the 1930's through 1977.
- PCBs were released by GE directly into the river and the ground at the facility. PCBs in the ground have seeped into the river.
- PCBs are extremely persistent in the environment because they break down very slowly.
- Congress banned the manufacture and distribution of PCBs in 1977 because of evidence that PCBs build up in the environment and in humans and cause harmful effects.

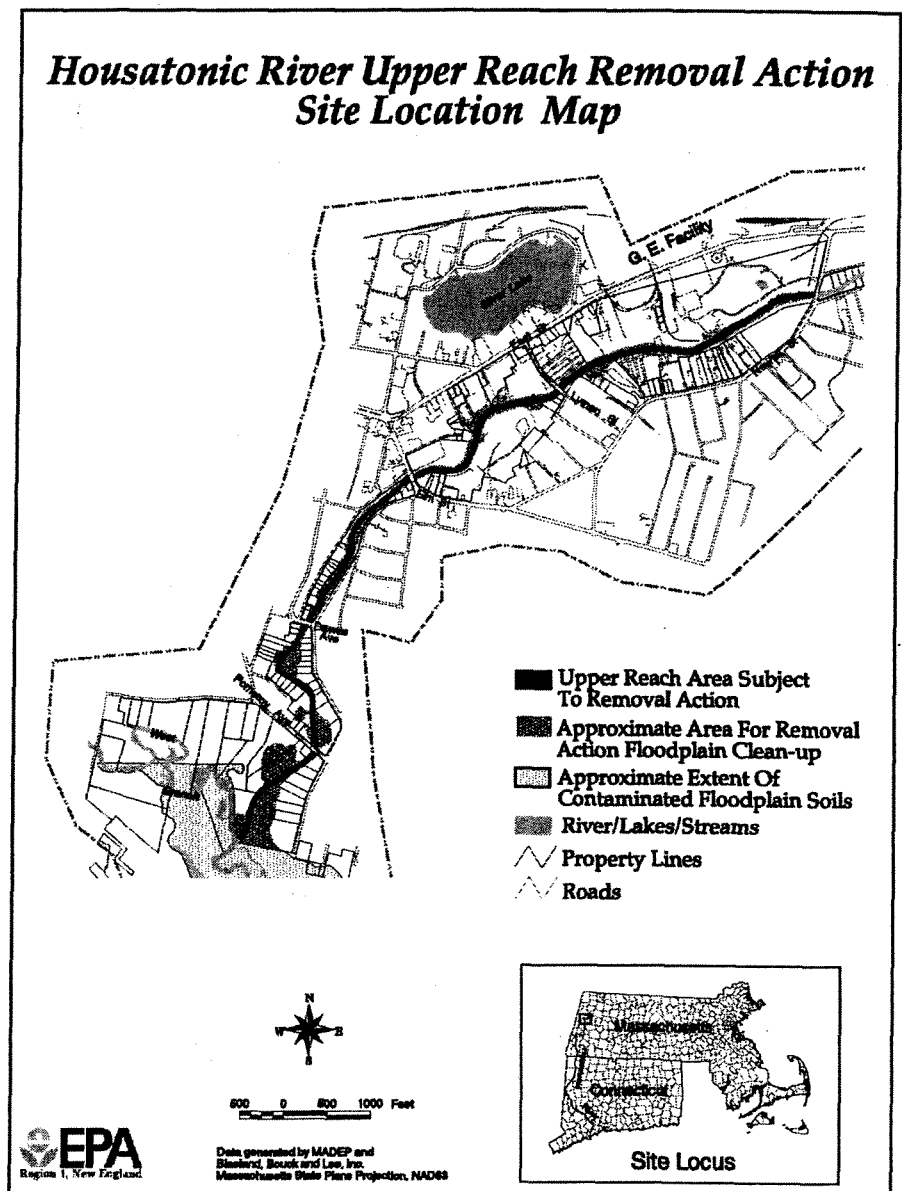
## River Clean Up Actions:

The following are the key elements of EPA's River Order, announced on June 3, 1998:

- GE must take measures to eliminate ongoing PCB contamination into the river from its Pittsfield facility. This order requires that this work begin by November 1, 1998.
- GE must take measures to limit public exposure to contaminated sediments and flood plain soils in the two-mile Upper Reach. The order requires work to begin by August 1, 1998.
- GE must remove PCB-contaminated river sediments and riverbank soils from the first ½ mile stretch of the Upper Reach, between Newell and Lyman Streets. The order requires that this work begin no later than June 1999.

All plans for the above activities will be presented to the community for public review and comment.

Even while these activities are taking place, EPA will begin an engineering study for addressing the remaining 1½ miles of the Upper Reach. The study will focus on the various options for remediating contaminated sediments, riverbank and flood plain soils in this portion of the river. In early 1999 EPA will propose an appropriate action which will be subject to public review and comment before a final decision is made.



## For More Information:

U.S. Environmental Protection Agency (413) 499-9325

---

**AN ACTION AGENDA FOR ECONOMIC AND ENVIRONMENTAL  
RECOVERY IN PITTSFIELD AND BERKSHIRE COUNTY  
(APRIL 6, 1998)**

---

April 6, 1998



## ***An Action Agenda for Economic and Environmental Recovery in Pittsfield and Berkshire County***

*This plan is a blueprint for an improved environment, short term construction jobs, and long term economic opportunity for Pittsfield and Berkshire County. To achieve success will require hard work, a sense of urgency and a spirit of cooperation by all parties. EPA is fully committed to bringing each of those values to our work.*

**John P. DeVillars, New England EPA Administrator**

### ***EPA's Action Plan has four critical elements:***

- Issuance of immediate enforcement orders necessary for public health protection. These orders -- backed by the full force of federal law and if necessary, federal funding -- will initiate critical clean up activities for the plant site, the first two miles of the Housatonic River downstream of the GE facility and ensure continued progress on the cleanup of contaminated residential and commercial properties.
- The establishment of a Citizen Advisory Panel of citizens, area political, environmental and business leaders to inform and guide EPA's decision making throughout the clean-up and economic redevelopment process.
- In partnership with the city's political and business leaders, the submittal of a proposal to GE for conducting clean-up and redevelopment activities at the GE site separate from the Superfund process.
- Continuation of the Superfund listing process and other authorities to insure an expeditious clean-up of the river, a fast track for site redevelopment, and the comprehensive restoration of the natural resources damaged by PCB contamination.

### ***IMMEDIATE ENFORCEMENT ORDERS***

The first element of EPA's four part action plan is a series of immediate enforcement orders for the plant site and the river as well as the expectation of aggressive voluntary actions by GE. The details include:



## Housatonic River

By May 15, EPA will order GE to immediately undertake the following activities:

- Elimination or control of all actual or potential sources of contamination to the Housatonic River, including hot spot remediation at the plant site;
- Excavation of contaminated river and river bank sediments in a two mile stretch of the Housatonic beginning at the GE facility (Newell Street bridge) to the confluence of the river (the confluence of the West and East branches of the Housatonic River); and,
- Remediation of contaminated soils for the contaminated floodplain properties in that same two mile stretch.

If GE refuses to comply with this order, EPA is prepared to undertake these activities on its own and ask the Department of Justice to seek recovery of money EPA spends, plus up to three times that amount in damages from the company as well as impose penalties of up to \$27,500 per day for failure to comply on GE's part.

The timetable for this set of activities is:

May, 1998	EPA issues GE order to submit work plan
July, 1998	GE is required to submit work plan
August, 1998	Public review and comment on GE's plan
Nov, 1998	Construction begins for source control at the plant site and, if necessary, elsewhere
Spring, 1999	Construction begins on river sediment excavation

The justification for the order requiring this work is based on recent EPA sampling data that indicates high levels of PCBs exist in flood deposited-soils in floodplain residential properties. Even higher levels have been found in riverbank sediments. This data also indicated that, even without recent flooding, a previously GE-remediated area has been recontaminated with PCBs.

### Continued Aggressive Action to Identify and Remediate Residential Fill Properties

EPA has collected 700 soil and sediment samples in the past eight months. GE has committed to begin, on April 10, cleanup of nine contaminated properties on Longfellow Avenue, and has proposed cleanup of another 45-60 residences by the end of this construction season. Should the company fail to follow through on this commitment, EPA will issue enforcement orders to GE to clean up residential properties contaminated with PCBs that pose a public health risk or, if necessary, conduct the work itself and ask the Department of Justice to seek recovery of money EPA spends, plus up to three times that amount in damages from the company as well as impose penalties of up to \$27,500 per day for failure to comply on GE's part.

Beginning in May 1998, EPA will sample, or order GE to sample, residential properties for the presence of PCBs. EPA and DEP are currently compiling information about past GE fill practices to prioritize properties for sampling.

**Allendale School**

Beginning April 20, under EPA and state supervision, GE has agreed to remove PCB-contaminated soil from the Allendale school playground where PCBs were found outside the temporary cap.

By the end of the summer, a feasibility study will be completed to identify long-term options for a permanent remedy at the Allendale School. Construction of the final solution will be completed during the 1999 summer school vacation, and will follow a public comment period in the fall of 1998.

If GE refuses to honor its commitment to clean up this property, EPA will undertake these activities on its own and ask the Department of Justice to seek recovery of money EPA spends for the cleanup.

The timetable for this set of activities is:

April, 1998	GE removes contaminated soil on playground
Summer, 1998	Complete feasibility study for permanent remedy at school
Summer, 1999	Construction of final remedy complete

**Newell Street Commercial Properties**

By May 15, EPA will complete a risk analysis of PCB contamination of the Newell Street properties. If necessary, EPA will order GE to perform short-term cleanup measures at those properties should it be determined they pose a risk to public health.

**Silver Lake**

EPA is currently analyzing results of March 30 sampling of Silver Lake to determine if bank soil and sediment excavation is necessary to protect public health. EPA will issue an order to GE to conduct cleanup at the lake should the outcome of the analysis so warrant.

## ***CITIZEN ADVISORY PANEL***

Based on the agency's community involvement model developed for the clean-up of the Massachusetts Military Reservation on Cape Cod, EPA will, in close coordination with Mayor Doyle and City Council President Hickey, within the next month, convene a Community Advisory Panel, comprised of knowledgeable, committed Berkshire County citizens to ensure that citizen concerns are fully incorporated into the key environmental decisions that will be made by the agency. The board will be comprised of business, environmental, community and political leaders from Pittsfield, South Berkshire County, and Connecticut.

## ***REDEVELOPMENT OF THE GE PLANT SITE***

EPA and the other government agencies share the city's goal for redevelopment of the GE site.

Within the next two weeks EPA, with full input from the city's political, business and community leaders, will submit to GE a proposed redevelopment plan and timetable for the future use of the GE Pittsfield site. It is likely that the plan will include:

- Fair and responsible cleanup standards;
- Identification of specific parcels of GE property that can be transferred to the city for redevelopment; and,
- Liability protection sufficient to allow for property transfer and redevelopment.

## ***SUPERFUND LISTING***

EPA will proceed with the process for the listing of the Housatonic River and the General Electric facility in Pittsfield on the Superfund National Priorities List. Over the next several months, EPA will continue to solicit public comments on the listing, and consider and respond to those comments.

The timetable for this process is as follows:

May 1, 1998	Public comment period closes
May to November, 1998	EPA consideration of public comments and response preparation
November, 1998	EPA announcement of final decision on listing

There will be a 90 day period after the final decision date during which challenges to the final decision can be filed in the Court of Appeals in the District of Columbia.

## ***ADDITIONAL INFORMATION***

GE's 245 acre Pittsfield site and the Housatonic River from Pittsfield to the Long Island Sound are contaminated with PCBs from GE's Pittsfield facility. The twelve miles of river and flood plains immediately south of the Pittsfield plant site are the most heavily contaminated river and flood plain areas. It is anticipated that most of the river and flood plain remediation will take place in this twelve mile stretch. To date, nearly 100 residential and commercial properties in Pittsfield have also been identified as in need of environmental remediation. A fish consumption advisory for the Housatonic River is in effect for nearly 100 miles downriver of the Pittsfield site.

The work called for under the EPA Action Plan is estimated to result in several hundred million dollars of environmental and economic investment by GE in Pittsfield and Berkshire County and result in hundreds of construction and remediation jobs over the next few years.

PCBs, the production and distribution of which were banned by EPA in 1979, are a probable human carcinogen. PCBs pose special risks to pregnant women and have been linked to lower IQs in children and with problems with intellectual function, the nervous system, the immune system, the reproductive system and premature births.

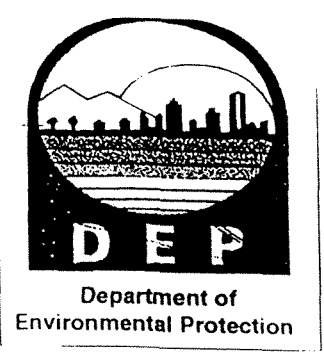
---

**USEPA AND MADEP ENVIRONMENTAL UPDATE FOR THE  
BERKSHIRES (MARCH 1998)**

---



# US EPA and MA DEP ENVIRONMENTAL UPDATE for the BERKSHIRES



The US Environmental Protection Agency and MA Department of Environmental Protection are working to address PCB contamination in the Berkshires. This update is the first in a series to keep citizens informed of our progress. The focus of this update is the cleanup of residential properties.

## Residential Fill Properties Investigative Process

What to Expect as a Homeowner

EPA and DEP recently discovered that some of the fill given away by General Electric in past years was contaminated with PCBs. We are now working to identify properties that received contaminated fill. If you have questions or concerns about a property, please call the contacts listed to the left. To learn what happens when you call with a concern about contaminated fill, read on:

properties which may have received GE fill in the past through calls made directly to DEP or to DEP's hotline(1-888-VIOLATE), historical records, and conversations with residents.

### Evaluation of the Property

The initial evaluation of a property typically includes an interview with the owner and a walk around the property. Based on what is learned in the interview, DEP determines if it is necessary to sample the property. In some cases, sampling is unnecessary and the interview is all that takes place. During the interview, DEP staff ask the following:

*continued on p. 2*

### Contacts Relative to Residential Fill Properties:

#### US EPA

Bryan Olson  
617-573-5747  
Project Manager

Stephanie Carr  
617-223-5593  
Project Manager

Angela Bonarrigo  
617-565-2501  
Community Involvement  
Coordinator

Toll Free: 1-888-EPA-7341

#### MA DEP

Anna Symington  
413-784-1100 x243  
Acting Section Chief

Adam Wright  
413-784-1100 x 292  
Project Manager

Al Weinberg  
413-784-1100 x220  
Deputy Regional Director

Toll Free: 1-888-VIOLATE

### Potential Fill Area is Identified

DEP and EPA learn about

Soil removal at Longfellow



*Properties, cont'd from p. 1*

**Why do you suspect that fill from GE is on the property?**

For example; Did you observe the actual "filling" of the property? Did you hear about it from a neighbor or previous owner? Is there something about the physical nature of the property that leads you to believe it has been filled?

**When was the fill brought to the property and where did the fill come from?** We can compare this information with information that we already have about when and how fill from GE was distributed.

**What materials comprise the fill?** Objects such as scrap metal, broken porcelain insulator parts, and wood block flooring often appear in fill from GE.

If the initial evaluation indicates that fill on the property may have originated from GE, we require GE to sample the property.

If the initial evaluation does not suggest that fill on the property originated from GE, we will not require GE to sample. However, we keep the information on file. If additional information is received at a later time which indicates that the fill may have originated from GE, we will then require GE to sample the property.

**Sampling of the Property**

Before conducting sampling on a property, GE obtains access permission from the property owner. A sampling crew then conducts soil sampling to define the extent of contamination. The sampling crew may have to return multiple times to

adequately define the extent of the contamination. More detail on how soil sampling is conducted is provided in "Questions About Soil Sampling" on page 4 of this update.

**Clean Up**

Based on sample results, GE develops a cleanup plan. Because each property is unique, cleanup plans are specially designed for each property. The cleanup plan is submitted to the agencies and the property owner for comment. After all comments are made, the cleanup plan is finalized. GE, their contractors, and agency representatives work with property owners to finalize the details of the cleanup.

When cleanup begins, contaminated fill is removed and replaced with clean fill from local sources. The new fill is tested thoroughly to assure that it is clean. When excavation is completed, a landscape architect works with owners to restore the property.

During the past several months, sampling has been completed at several properties. With the start of the spring construction season, we plan to move as many properties as possible through the cleanup process.

For an example of how the cleanup of a residential property was completed, read "Longfellow Avenue: Profile of a Residential Fill Property Cleanup" on p. 3.

---

**Community Involvement Corner**

**Pittsfield Office Hours:** EPA & DEP staff are available in our Pittsfield office every Wednesday, 10 a.m. - 1 p.m. in the basement of the Pittsfield City Hall.

**EPA & DEP Environmental Updates:** We welcome suggestions for topics to be covered and questions to be answered in future updates. Contact Angela Bonarrigo with your suggestions: telephone: 617-565-2501 or e-mail: bonarrigo.angela@epamail.epa.gov

Additional Information on EPA cleanup activities can be found on our website: [www.epa.gov/region1](http://www.epa.gov/region1)

**Information Repositories:** To provide the community with site related information, Repositories exist at the following locations:

**Berkshire County Regional Planning Commission**  
10 Fenn St., Pittsfield  
Contact: Chrystal Shelley  
413-442-1521  
Hours: M-F 8-5

**Berkshire Athenaeum Public Library**  
1 Wendell Ave., Pittsfield  
Contact: Madeline Kelly  
413-499-9488  
Hours: M-H 9-9, F 9-5, SA 10-5;  
summer: M, W, F 9-5, T&H 9-9,  
SA 10-1

**Lenox Public Library**  
18 Main St., Lenox  
Contact: Sherry Gaherty  
413-637-0197  
Hours: T, W, F, SA 10-5; summer: M-SA  
10-5

**Simon's Rock College of Bard**  
84 Alford Rd., Great Barrington  
Contact: Joan Goodkind  
413-528-7274  
Hours: M-F 8:30 - midnight, SA 10-12,  
SU 12-12; summer and semester  
breaks: M-F 9-4

---

## Longfellow Avenue Profile of a Residential Fill Property Cleanup

It can be difficult to envision how cleanup of a residential property will be accomplished. While every property is different, this article will trace the basic steps involved, from discovery of contamination on a property through restoration.

### Initial Discovery of Contamination

EPA and DEP initially received information on the possibility that GE fill was placed on this property from an old record submitted by GE in 1997 in response to DEP's formal request for information. Based on this information, DEP and EPA required that GE collect soil samples from the property. The samples confirmed the presence of PCBs at concentrations at levels for which DEP and EPA require cleanup. In some portions of the property, contamination was as deep as 8 to 10 feet.

### A Plan for Cleanup

GE took additional sample results to define the extent of contamination and prepared a plan for clean up which identified the areas from which soil would be removed. EPA and DEP approved the cleanup plan in October 1997.

### Removal of Contaminated Soil

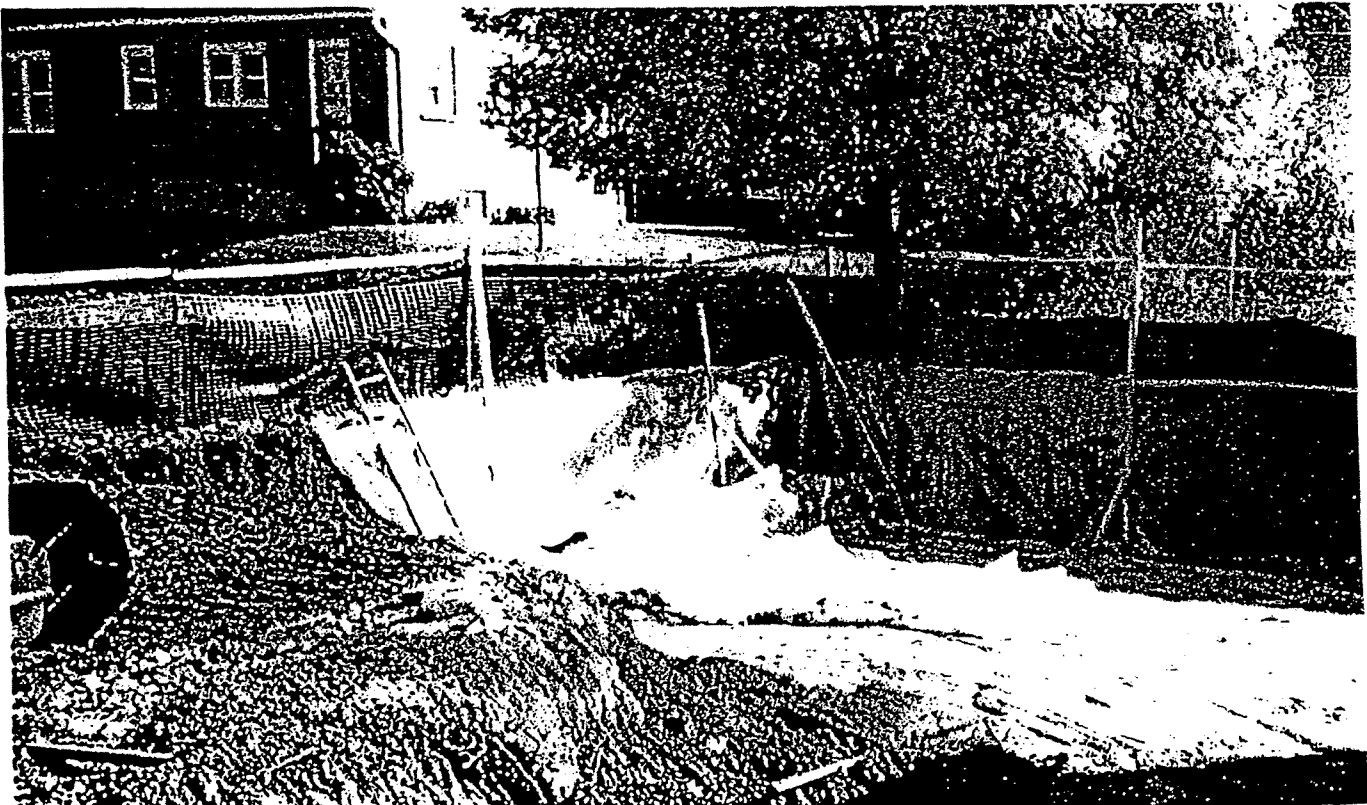
GE's contractor began removing contaminated soil in late October. A back-hoe scraped soil from the yard and deposited it shovel by shovel into a dump truck parked on the property. Trucks transported the fill to the GE facility where soil was temporarily stored prior to disposal.

### Health and Safety Measures

As a safety precaution, continuous monitoring of particulates (dust) was conducted during work hours, immediately downwind of the work area. In addition, air monitoring for PCBs was conducted at three PCB air samplers stationed near the work site. This air monitoring was designed to ensure that contaminated soil was not becoming airborne and migrating from the work-site at unsafe levels.

### Restoring the Yard

In November, following removal of contaminated soil, the property was backfilled with clean fill and topsoil. A new sod lawn was placed over the yard and the driveway was repaved.





## QUESTIONS ABOUT SOIL SAMPLING?

Some residents have raised questions regarding soil sampling procedures on their properties. What follows are answers to some that are most often asked.

### **What is the purpose of a surface sample?**

The purpose of collecting a sample in the surface is to determine whether or not contaminant levels exist in the area of highest exposure. Wherever a surface sample location is determined, two samples are collected from the top foot of soil. The first sample is taken from *within* the first of 0-6 inches. The sample can be collected from anywhere within the top 6 inches, including the top inch. The second sample is the near-surface sample and it is collected from within the next 6-12 inches.

### **What is the difference between a surface sample and a boring?**

Surface samples are collected from the top foot of soil as described above.

In contrast, borings extend beyond the top foot of soil where the surface samples were obtained. Soil samples are collected at 2-foot intervals within the boring. Soil borings confirm whether fill material is present; how deep it extends; and, if contaminated, what the depth of the contamination is.

### **Why do borings vary in depth across a property or between properties?**

The depth of a boring will depend on what is found as the

boring is advanced. Borings are extended until no signs of fill material and / or contamination are detected. This is because when fill is brought to a property, it is not necessarily deposited in an even and consistent depth across the entire property.

### **How are sampling locations determined for each property?**

Sampling locations are determined based on the information provided by the property owner or others who have knowledge or observations about the property. Other considerations include the physical characteristics of the property such as elevation and slope, different uses of the property such as gardens and childrens' play areas, and the location of a property relative to other contaminated properties..

### **Does the sampling grid provide an accurate picture of the property?**

After determining the areas of a property which need sampling, we use the same very conservative and consistent grid pattern for each property. This grid pattern determines the location for the individual soil samples to be taken so that the data can be collected to fully characterize the nature, extent, severity and distribution of contaminants on a property. Sampling grid locations are based on the assumption that over time, a person's exposure or potential contact to the soil is the same throughout the property and the soil concentrations remain constant. However, in the areas of a property where more frequent activity is likely to occur, such as a garden, the grid is adjusted to ensure that samples are collected from these areas.

Using the samples gathered

through the surface grid, coupled with the samples obtained from the deeper borings, we have the data necessary to determine whether or not contaminated material is present and if so, where it is located.

### **Are samples analyzed in the field?**

No. Soil samples are only "screened" in the field as a preliminary step. PCB analysis is conducted in a laboratory.

### **I found fill material that appeared to have come from GE. How is it that the sample results indicate that my property is not contaminated or does not have elevated levels of PCBs?**

Finding fill material that appears to have come from the GE Facility provides an indication that contamination *may* be present, not that it will be present.

The observed fill material itself may not be contaminated, but the soils or other associated materials that may have been brought to the property along with these may be. That is why so many questions are asked by the DEP and EPA regarding what is known about the fill material and the property before sampling begins. Some properties have pieces that were brought to the property for decorative or functional purposes, not for fill. And while these are present, they themselves are not contaminated.

An example is the ceramic covering used on the transformers which held PCB oil. Some of these ceramic cylinders or sheathes were recovered by

*continued on p. 5*

Sampling continued from p. 4

folks and used as planters, borders and barrier walls. That's how some of the material came to be found on some properties. It's what was contained within these insulators that is of concern, but not the insulator itself. So there is the possibility that while there appears to be suspect material on a property, the culprit itself (PCB) may not be present in elevated concentrations.

**My neighbor's property was found to be contaminated, yet my property is not being sampled. Why?**

If soil samples collected near the boundaries of your neighbor's property indicate PCB levels less than 2 ppm at the surface, and there is no evidence of contaminated material at depth near or along the property boundaries, no further sampling is usually required as there is no indication that contaminated fill material was disposed of on your property.

### **Government Negotiations with General Electric**

The EPA, MA DEP, MA and CT offices of the Attorney General, National Oceanic and Atmospheric Administration (NOAA), the Department of the Interior, MA Executive Office of Environmental Affairs, the U.S. Department of Justice and the City of Pittsfield are involved in negotiations with GE.

The negotiations are an opportunity to address environmental cleanup, redevelopment of the industrial facility and restoration of natural resources that have been damaged by the release of PCBs to the environment. Residential properties are not part of the negotiations.

We have made some progress and have set March 30, 1998 as a deadline for concluding negotiations.

Before any final plan is agreed to, the community will have an opportunity to examine and comment on any potential settlement.

### **Massachusetts Department of Public Health**

The MA DPH is drafting responses to comments on their health study "*Housatonic River Area PCB Exposure Assessment Study*" which was released in September 1997.

If you have any questions or would like a copy of the study, call MA DPH at:

**800-240-4266**

EPA maintains a mailing list of people interested in receiving periodic updates, meeting announcements and relevant media releases. If you received this update in the mail, you are already on our mailing list. However, if you would like to be added, deleted or have a change made to your address, please fill out the following information and mail it back to EPA.

I would like my name placed on the mailing list

I would like my name deleted from the mailing list

Please make a correction to my address

**NAME:**

\_\_\_\_\_

**ADDRESS:**

\_\_\_\_\_

\_\_\_\_\_

*Please place a check next to the appropriate action and mail this form to:*

Angela Bonarrigo, US EPA, JFK Federal Building (RAA), Boston MA 02203

---

**REPORT OF ATTORNEY GENERAL SCOTT HARSHBARGER  
RELATIVE TO THE WORKSHOP HELD ON FEBRUARY 5, 1998  
REGARDING HEALTH CONCERNS RELATING TO  
PCB CONTAMINATION IN PITTSFIELD AND  
SOUTHERN BERKSHIRE COUNTY (MARCH 1998)**

---

REPORT OF  
ATTORNEY GENERAL SCOTT HARSHBARGER

---

Relative to the Workshop Held on February 5, 1998  
Regarding Health Concerns Relating to  
PCB Contamination in Pittsfield and  
Southern Berkshire County

---



SCOTT HARSHBARGER  
ATTORNEY GENERAL

James R. Milkey  
Assistant Attorney General  
Chief, Environmental Protection Division  
200 Portland Street  
Boston, MA 02114  
(617) 727-2200, ext. 3347

March 1998



SCOTT HARSHBARGER  
ATTORNEY GENERAL

(617) 727-2200

*The Commonwealth of Massachusetts*  
*Office of the Attorney General*

*One Ashburton Place*  
*Boston, MA 02108-1698*

March 5, 1998

Dear Interested Party:



Last October, I met with residents who live at or near PCB-contaminated property in Pittsfield. At this meeting, people told gripping stories about their health concerns. One man reported that he was scared to hug his newborn grandchild; another spoke movingly about having cancerous growths cut out of him by the age of thirty-seven. People voiced their common perception that the residents of the Lakewood area were experiencing a highly elevated incidence of cancer, although many raised other health problems as well.

Because I am not a trained scientist or health care professional, it was not possible for me to evaluate the powerful anecdotal evidence that people presented to determine what level of concern is warranted. At the same time, I feel strongly that the people deserve answers to their questions, to the extent possible. I therefore instructed my staff to do what they could to serve as a catalyst to ensure that appropriate answers were provided.

My office obtained copies of the three major health studies that have been undertaken and distributed them to a select group of outside experts, agency representatives, and concerned citizens in the Greater Pittsfield area. On February 5, 1998, we convened an all-day workshop for this group to examine these issues. The purpose of the workshop was to review the past studies, to discuss what additional information would be useful to address residents' concerns, and to brainstorm about ways that we might obtain such information. Attached is a report summarizing the day's discussions.

I believe the workshop was a success because it helped develop a shared understanding of the issues and it advanced the debate on how best to proceed. I want to extend my heartfelt thanks to all of the day's participants, including to the outside experts who generously donated their expertise, to the Lakewood residents and Housatonic River Initiative representatives who gave a day of their busy lives to participate, and to the agency personnel who despite their otherwise full schedules spent the day helping to make the workshop a success. Special appreciation goes to Elaine Krueger and Bob Knorr of the state Department of Public Health who presented the recent blood study and who accepted the group's comments with equanimity.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Harshbarger".

Scott Harshbarger

## *Table of Contents*

<b>Introduction</b>	<b>1</b>
<b>I. Background Issues</b>	<b>2</b>
<b>A. The difficulty of uncovering health effects through epidemiological studies</b>	<b>2</b>
<b>B. The relationship between health studies and decision making regarding clean up standards</b>	<b>2</b>
<b>C. What health impacts do people care most about?</b>	<b>3</b>
<b>D. What “exposure pathways” do people care most about?</b>	<b>4</b>
<b>E. What chemical exposure do people care most about?</b>	<b>4</b>
<b>II. What We Have Learned from the Three Major Studies</b>	<b>5</b>
<b>A. Wegman Worker Study</b>	<b>5</b>
<b>B. DPH Bladder Cancer Study</b>	<b>6</b>
<b>C. DPH Blood Study</b>	<b>7</b>
<b>III. What Next Steps Should We Take?</b>	<b>12</b>
<b>Conclusion</b>	<b>14</b>
<b>Appendix A: Workshop Attendees</b>	<b>15</b>

## *Introduction.*

This report summarizes discussions that took place at a workshop that was held on February 5, 1998, to discuss health concerns relating to PCB contamination in Pittsfield and southern Berkshire County. This workshop was convened by Attorney General Scott Harshbarger as a follow-up to a meeting that he held with Pittsfield residents in October of 1997. Participants included a select group of outside experts, agency representatives, and concerned citizens in the Greater Pittsfield area. The workshop was held in Springfield so that people from both Boston and Pittsfield could attend. Despite sleet and freezing rain, 23 people participated. A list of these participants is included in Appendix A.

Part I of this report will review background issues discussed at the workshop, focusing on the issues of greatest concern and on the problems inherent in trying to use epidemiological studies to prove adverse health impacts from chemical exposures. Part II will detail the discussions of the three health studies that had been done to date, pointing out how the studies have been misconstrued. Part III will lay out specific action steps discussed, focusing especially on what can be accomplished with relatively limited public and private resources. In summarizing the discussions, we have tried to avoid technical jargon where possible in order to make the report accessible to the lay public. We hope that this report helps advance the debate on these critically important issues.

## *I. Background Issues.*

### *A. The difficulty of uncovering health effects through epidemiological studies:*

One thing that came out of the workshop was a greater appreciation among the lay participants of the difficulties of undertaking epidemiological studies. For example, the experts in attendance explained why it is so difficult to design such studies, and why they take so much time and money to perform. The lay participants also gained a greater appreciation for why epidemiological studies so seldom demonstrate adverse health effects even when such effects are strongly suspected. There are many reasons for this, including the following:

- limitations on resources available to do the necessary data collection and analysis;
- the inherent difficulties of obtaining the necessary data even if unlimited time and money were available (e.g., little historical information on worker exposures, the invasiveness of medical procedures such as tissue biopsies, problems presented by multiple exposures, etc.);
- the difficulties of applying the rigors of scientific proof to complicated, uncontrolled "real world" situations;



- imprecise exposure data commonly resulting in a “bias toward the null hypothesis”; and
- the fact that epidemiologists are trained to be “critical of everything,” coupled with the fact that, because there is no such thing as a “perfect study,” they have ample leeway for their critical dispositions.

In light of the fact that epidemiological studies are notoriously “insensitive,” one outside expert noted after the workshop that he is most often quoted for his only-half-in-jest comment that a “health catastrophe” should be defined as “a health effect so powerful even an epidemiological study can detect it.”

Epidemiological studies are done for many reasons. These include seeking to advance our knowledge of health risks generally. They also include seeking to aid populations placed at special risk through, for example, helping potentially injured parties and medical professionals better address particular health risks they are facing, and securing “the truth” for its own sake (be it “good news” or “bad news”). The problems listed above obviously limit our ability to make use of epidemiological studies to serve their intended purposes. There is another impact as well, however. Because the public does not generally understand the difficulty of proving that exposure to particular chemicals causes adverse human health impacts, this often means that inconclusive epidemiological studies are taken to mean that no problem exists even when it well may.

One hotly debated issue at the workshop was whether public health officials are institutionally biased against uncovering major health problems. One outside expert made this assertion, mainly based on his view of the pressures that such officials face given that agencies do not have the resources to address any major health problems that they uncovered. Agency representatives strongly denied feeling such pressures.

## **B. The relationship between health studies and decision making regarding clean up standards:**

On one point, everyone who attended the workshop was of a single mind: in light of the inherent difficulty of proving human health effects through epidemiological studies, agency officials should use ultra-conservative assumptions in setting risk-based clean up standards. One attendee pointed out that from this perspective, the governmental response to the contamination at Wells G and H in Woburn can be viewed as a success story. State and federal regulators shut down the wells upon learning of the contamination, notwithstanding the fact that most experts at the time doubted that a cancer link could be proven and the fact that such a link was not shown until many years later.

### C. What health impacts do people care most about?

For understandable reasons, most of the health fears to date have focused on cancer risks. Cancer simultaneously presents significant opportunities and obstacles for epidemiological research. On one hand, cancer incidence data are now readily available (through the state cancer registry) and generally considered reliable (given standardized laboratory procedures to diagnose malignancies). This is one of the reasons cancer is relatively well-studied, even though other health effects may hold greater significance. One outside expert attending the workshop analogized this situation to “the drunk who searched for his keys under the streetlight: he knows he didn’t leave them there, but it was the only place he could look.”

On the other hand, cancer presents a great challenge to researchers because, except for a small number of “sentinel cancers,” it has many different possible causes. In addition, the fact that cancer is so prevalent in society (approximately one out of three people statistically is expected to develop cancer) presents major proof hurdles.

People’s focus on cancer risks has obscured the fact that there are many other significant health risks potentially posed by PCBs. Studies have found associations between exposure to PCBs and at least the following serious conditions:

- non-malignant liver damage;
- chloracne and other skin problems;
- adverse reproductive effects;
- a variety of endocrine disorders; and
- infant and child development issues.

Moreover, researchers both at the workshop and elsewhere have emphasized how little is known about environmental health risks in general and exposure to PCBs in particular. One outside expert explained that this is why doing only a pure “exposure driven” study (i.e., one that examined a target group for known PCB-related health risks) would be shortsighted. In his words, “such a study might well miss the most interesting stuff.” In addition to the problems listed above, residents expressed concerns regarding a variety of other health issues. For example, some residents noted their perception that Berkshire County was experiencing a raft of cases of multiple sclerosis. The researchers in attendance emphasized that an epidemiological study of multiple sclerosis would be extraordinarily difficult to carry out in light of difficulties of diagnosis and inaccessibility of incidence data.

**D. What "exposure pathways" do people care most about?**

PCBs can be ingested, inhaled, or absorbed through the skin. Studies of workers have focused mainly on skin contact in light of stories that workers most heavily exposed to PCBs effectively "bathed" in pyranol, the oily fluid that contained the PCBs. Studies of residents have focused mainly on ingestion, mostly through eating fish. Some workshop attendees expressed their view that more attention should be paid to skin contact by residents in light of the fact that PCB-contaminated soils have been buried throughout the community and in light of a new study referred to by an agency representative that reportedly found that skin contact may result in higher "uptake" than previously thought. In addition, some attendees expressed puzzlement as to why the breathing pathway had not been examined more, given the fact that a PCB incinerator operated at the GE site for many years.

**E. What chemical exposures do people care most about?**

Not surprisingly, most public attention has focused on the PCB contamination itself. In addition, there may be other chemicals of potential concern, even in the residential setting. For example, the pyranol in which the PCBs were contained also contained trichlorobenzene. (An agency representative noted that trichlorobenzene had not all volatilized into the air but is still being found in the environment.) In the workplace setting, there were many substances that are of potential concern. Indeed, a report prepared for GE by Dr. David Wegman (discussed further below) itself found associations between elevated cancer deaths and various substances to which GE workers had been exposed, including: resins, solvents, machining fluids, and benzene. Finally, obviously dioxins and dibenzofurans potentially raise significant health concerns for both workers and residents. These substances can result from incomplete combustion of PCBs, and, according to the report prepared by Dr. Wegman, dibenzofurans are found in trace amounts in pyranol. It is at least worth considering whether future studies should examine the health effects of these other chemicals in addition to, or instead of, those of PCBs.

## *II. What We Have Learned from the Three Major Studies.*

### *A. Wegman Worker Study:*

In the late 1970s, a state study (described as preliminary) found an excess of mortality from leukemia and cancer of the large intestine among people who had been employed at the GE facility. In the 1980s, General Electric commissioned a follow-up study under the direction of the eminent epidemiologist, Dr. David Wegman. This was a "case control study of cancer mortality risk" among GE workers. In lay terms, the study looked at a population of GE workers who had died of cancer over a 15-year period and asked what was different about their exposure compared to those GE workers who died of some other cause. The report of the study is dated January 24, 1990.

One of the most interesting points to come out at the meeting was that notwithstanding the fact that the Wegman study has achieved an almost mythological significance in GE's efforts to downplay the health risks, few people had had the opportunity to actually read the study. In fact, virtually all of the participants in the workshop -- most of whom have been intimately involved in GE-Pittsfield issues for years -- saw the report for the first time when it was distributed to them in preparation for the workshop.

The candid nature of Dr. Wegman's conclusions may help explain why GE has not itself distributed the report more widely. First, the study did find associations between increased cancer risks and worker exposure to various substances other than pyranol. Second, even though the Wegman study did not find an association between worker exposure to pyranol and excess cancer mortality risk, it listed numerous problems that seriously undercut the value of such a finding. Most of these problems involved questionable data on which the study had to rely, including, for example:

- incomplete company records;
- the difficulty of determining "real" cause of death;
- inclusion only of cancers that resulted in death; and
- very limited data on historical workplace exposures.

At several points, Dr. Wegman noted that these problems limited the statistical value of the study, known as "power." In fact, in discussing the limited historical workplace exposure data available to him, Dr. Wegman himself concluded:

There is a high probability, therefore, that even if elevated cancer risks exist in this environment they might not be found.

*A Case-Control Study of Cancer Mortality at the General Electric Pittsfield Facility, Vol. I, p. 6.*

Given the thoroughness of Dr. Wegman's analysis of the obstacles to his study, the outside experts had little to add. They all spoke highly of Dr. Wegman and complimented the state-of-the-art methods he used. They emphasized, however, that ultimately the study's findings were limited by its input. In light of the kinds of problems that Dr. Wegman identified even with the considerable resources otherwise available to him, many participants expressed great skepticism at further formal worker health studies.

## B. DPH Bladder Cancer Study:

The Wegman study examined cancer mortality (i.e., deaths caused by cancer) as opposed to the incidence of cancer, whether or not it was the cause of death. This was presumably because at the time the Wegman study was begun, there was no systematic way of tracking information regarding the incidence of cancer in Massachusetts. This changed with the creation of the state cancer registry in 1982. Routine analysis of the first four years of cancer registry data (1982-1985) uncovered an excess incidence of bladder cancer among males in the city of Pittsfield. The state Department of Public Health analyzed the data available through the registry, including looking at possible "confounding" impacts of smoking, and found:

There is a notable, statistically significant excess of bladder cancer among GE workers as a whole (SMOR=202; 95% CI=135-302) and among the sub-population of smokers (SMOR=217; 95% CI=136-346). [SMOR stands for "standardized morbidity odds ratio" and CI stands for "confidence interval."]

Relying on currently available cancer registry information, this study was styled a "preliminary investigation." It recommended follow-up investigation to obtain "more detailed exposure information."

Workshop attendees who spearheaded the bladder cancer study described to the others what follow-up occurred. DPH made various efforts to uncover whether GE had utilized various known or suspected bladder carcinogens in Pittsfield, including extensive interviews of bladder cancer victims. Although it initially denied such use, GE apparently admitted some use of the chemical known as "MBOCA" -- a known bladder carcinogen -- after an employee produced a "material safety data sheet" for that chemical. Beyond this, however, follow-up efforts hit something of a standstill. In short, with the Wegman study then still ongoing and with DPH researchers encountering problems of obtaining necessary data from GE, further follow-up by DPH was shelved. While DPH urged GE to conduct follow-up on its own, it was not known by any of the attendees whether any such follow-up was done.

### C. DPH Blood Study:

In 1995, the DPH began a study that looked at PCB blood levels in Pittsfield area residents. Beginning with a random selection of households that resided within one-half mile of the Housatonic River (adjusted to have balanced representation from Pittsfield and "South County" residents), DPH selected a target population of 120 individuals whom the agency concluded were the most likely to have been exposed to PCBs. The selection relied heavily on assumptions regarding PCB exposure that grew out of a DPH study of PCB exposures in New Bedford. Of the 120 selected individuals, 69 individuals (including 35 from Pittsfield) agreed to have their blood tested. DPH also sampled the blood of 79 self-selecting volunteers.

DPH issued a report of its findings in September of 1997. The report demonstrated through actual blood sampling that the amount of PCBs found in people's blood was associated not only with age (given that PCBs accumulate in the body over time) but with fish consumption and with opportunities for occupational exposure. The report also called for a continuation of strict remedial measures in order to protect the public health, noting in fact that the blood levels found may have been lower than otherwise because of regulatory actions such as the now-longstanding ban on eating fish caught in the Housatonic River. The most noted and controversial conclusion of the DPH report, however, was that:

The serum PCB levels found among participants with the highest risk of exposure to PCBs in this study were generally within the background range reported for the non-occupationally exposed population in the U.S.

*Housatonic River Area PCB Exposure Assessment Study, Final Report, p. 31.* This finding, listed first among the report's conclusions, has been read by GE and many others as concluding that PCBs do not pose a major health threat.

The assembled group spent over two hours discussing the DPH study in a frank and open atmosphere. Attendees raised the following concerns regarding the study's primary conclusion:

- sample size: Some expressed concern about the sample size used. For example, in the selected target population, only 35 people from Pittsfield had their blood sampled. Although these people by definition lived within one-half mile of the Housatonic River, they otherwise were presumably distributed throughout Pittsfield. Therefore, it is likely that only a small number of them actually came from the Lakewood area where people have voiced the strongest health concerns. Read in this light, the blood level results obtained through the study may not be as comforting. When questioned about such issues, DPH personnel stated that they did not have the resources available to produce the statistical "power" they would have liked.

- **the limited nature of the study's aims:** As the DPH representatives explained, the blood study had relatively modest goals: to take an initial look at various pathways of exposure to PCBs and to examine correlations between these pathways and actual blood levels. In other words, as the official title of the study makes clear, this was a study of "exposure" to PCBs. While the level of PCBs in people's blood presumably correlates somehow with the degree of health risks presented, this relationship was not a subject of study here nor is it generally well understood. Strictly speaking, therefore, the blood study did not itself examine health risks at all. Somewhere between the original design of the study and the message that people heard when the report was announced, this point got lost. Citizens who attended the meeting expressed their frustration that DPH did not do more to clarify the limited nature of the study after it was announced;
- **different congeners:** The inability of the blood study to examine health risks is compounded by the fact that PCBs come in many different forms, known as congeners, that vary considerably in their toxicity. Workshop attendees stated that because of their high chlorine content, the congeners at issue in Pittsfield are more toxic than those generally confronted. The DPH blood tests were not "congener-specific," however, because such blood tests are technically quite challenging and presumably quite expensive;
- **comparison to national background:** The study ultimately compared its sample results against the range of PCBs in blood that would be expected in a randomly selected nationwide population among people who had not been occupationally exposed. The latter figure was taken from a report published by the Agency for Toxic Substances and Disease Registry, a federal health agency. While conceding that the ATSDR data might constitute the "best available evidence" of an expected national average, many people criticized the worth of that number. For example, average PCB blood levels are thought to be declining over time now that PCB manufacturing has been banned, PCB disposal has been regulated, and PCB-contaminated sites are being cleaned up. The ATSDR figure is based on data that is at least a decade old, and therefore it may well no longer be accurate. In addition, neither the ATSDR figure, nor the DPH results, were "congener-specific." Because the PCBs at issue in Pittsfield are of the relatively toxic variety, while the ATSDR figure is for all varieties (including the much more prevalent congeners of lesser toxicity), the comparison to the ATSDR figures may not be "apples to oranges," but it may be "apples to mixed fruit salad." Finally, one workshop attendee pointed out that the ATSDR figure may not be that useful for comparison purposes in light of the fact that, but for the contamination caused by GE, Southern Berkshire County is a rural, relatively pristine area where one would expect less opportunity for exposure to PCBs than on average nationally. In light of such problems, many workshop attendees questioned why the blood study did not include for comparison purposes a "control group" of people in

Berkshire County who had likely not been exposed to PCBs. The DPH response was again that the agency did not have the resources available to it to do what it would have liked.

- **downplaying "adverse" findings:** Some felt that DPH de-emphasized findings that did not fit neatly into its overall "background levels" conclusion. For example, the report emphasized that only 6% of the volunteer study had blood levels of over 20 parts per billion (as compared to an expected 5%), but failed to highlight that some of those readings were significantly higher than 20 ppb, including one of 114 ppb. In addition, although the report's focus on non-occupational exposures is consistent with the study's overall purpose, the fact that those volunteer participants with an opportunity for occupational exposure had blood levels of two to four times the expected national average for non-occupationally exposed population struck some as a significant finding that was downplayed.
- **what do blood levels mean?** Ironically, the chemical stability of PCBs -- one characteristic that made them useful as a product -- is one reason PCBs are thought to cause a health threat. PCBs are known to accumulate over time in fatty tissues within the body. Ideally, one would want to measure the PCB levels in such tissues. Measuring PCB content in fatty tissues involves invasive biopsies, however. Drawing blood is a much less invasive procedure. Moreover, having people fast before their blood is drawn releases some of the PCBs stored in fatty tissues back into the blood. For these reasons, blood sampling is typically used instead of tissue biopsies. But it is not entirely clear what PCB blood levels tell us. For example, how do PCB blood levels change over time and how constant is the relationship between PCB levels in blood compared to those in fatty tissues? The lack of answers to such questions may explain why some of the workshop participants sensed contradictory suggestions in the study: blood levels used as a surrogate for levels in fatty tissues vs. blood levels used as an measure of recent exposures. Finally, but most importantly, while blood levels may well correlate with the degree of health risk presented, the nature of this relationship is unknown. In other words, the amount of PCBs in blood says next to nothing about the particular level of risk presented.
- **residential fill properties:** According to the DPH representatives, the blood study generally assumed that the exposure factors shown to be of concern in the New Bedford study would be the ones of most concern in Pittsfield as well. This central assumption is subject to question, however, in light of the fact that the factual context of the Pittsfield problem is different in some respects from that of New Bedford Harbor. In Pittsfield, unlike New Bedford, for example, there are PCB wastes buried throughout the community. The blood study was undertaken prior to DPH's learning about the large amounts of PCB-contaminated fill that were disposed of at schools and in residential areas, especially in the Lakewood area. In fact, additional fill sites are still being discovered and many more such sites are



expected to be found. Because DPH had no knowledge of these sites, it did not design its study around them. Given that the fill areas generally fall within one-half mile of the Housatonic, some number of residents at or near these properties may well have been included in the blood sampling of the targeted population. Nevertheless, for at least a couple of reasons, the blood study likely did not adequately address the exposure issues posed by the "residential fill" properties. First, the point system used to determine whose blood would be tested from the target group was set up based on the assumption that the river and floodplain posed the greatest opportunities for exposure. While activities that would have put people in contact with soils in their own yard (such as gardening) did count for points (including a doubling of the designated points if these activities were performed in Pittsfield or Lenox), their point value was still relatively low compared to other activities. For example, under the DPH scoring system, a resident who lived nowhere near the residential fill properties who ate freshwater fish from somewhere other than the Housatonic River could easily "outscore" (i.e., be assumed to be more at risk) a residential fill owner who gardened seven days a week. The likely undervaluing of the residential fill problem is underscored by a new study reported by one agency official that PCB uptake through skin contact may be greater than previously thought. Because the blood sampling of the target group was done only among those who -- based on the point system -- were assumed to be most at risk, it is quite possible that people who were exposed to PCBs through activities such as gardening never made it to the blood testing stage. In addition, the inclusion of people who may not have been at relatively great risk in the blood sampling could obviously "water down" the overall average of people who had been exposed.

- air pathway: Meeting attendees expressed concern that the blood study did not adequately examine the possibility of intake of PCBs through inhalation. In particular, residents expressed fear about possible impacts from the PCB incinerator that GE operated for many years, especially in light of the periodic "downdrafts" that they observed. Highly dangerous dioxins and dibenzofurans can be produced when PCBs are incinerated if a problem with the incinerator resulted in incomplete combustion. Agency personnel expressed their view that the incinerator at GE was well designed and that it was well run during the period they were actively monitoring it, although they could not vouch for operations in a prior period. DPH did not explain in its report or at the workshop why it did not factor the presence of the incinerator into its analysis. The potential skewing effect on DPH's findings is similar to that discussed above for the residential fill properties: the down-draft area appears to fall within the one-half mile study area, but because no points were assigned to living downwind of the incinerator, people who may have been exposed through this means may not have been included in the blood sampling, even though they perhaps should have been.

- testing of children: Both at the workshop and in other forums, residents have over and over stated that their biggest health concerns are for their children. Nevertheless, children were excluded from the blood sampling. The explanation for this seeming paradox appears to be that because the study was designed to focus on those who DPH expected to have the highest blood levels and because PCBs accumulate in the body over time and therefore generally increase with the age of the person tested, it did not make sense to test children. Some workshop attendees felt that the fact that one would not expect PCBs in children's blood is precisely why it might be useful to look there. While not finding appreciable levels in children may not say much, finding them would be significant.

In sum, two conclusions can be made regarding the blood study. First, it is clear that this study has been misperceived by the press and many members of the general public as addressing health effects issues that DPH never even purported to examine (many citizens who attended the workshop expressed anger at their view that DPH allowed these misinterpretations to lie uncontroverted) Second, many serious questions have been raised about the validity and significance of the central conclusion that the report did reach that blood levels in the people most at risk of exposure did not exceed national background levels.

### *III. What Next Steps Should We Take?*

The last hour-and-a-half of the workshop was devoted to the question of what to do next. Particular attention was paid to how to conserve limited public and private resources, whether there are low resource ways of obtaining additional information that would better inform our thinking, and how better to coordinate various ongoing efforts.

Representatives from DPH briefly discussed two efforts it was conducting (in addition to some additional blood sampling). The first is a pilot study of whether there are correlations between the incidence of breast cancer in Berkshire County and blood levels of PCBs and DDE (a by-product of the pesticide DDT) in the cancer patients. DPH explained that this was a very preliminary, "quick and dirty" study aimed at determining whether to seek funding to conduct a fuller study. Many participants expressed concern that given the limited purpose of this pilot study and the fact that it was something of a "shot in the dark," inconclusive results could be misinterpreted as demonstrating that exposures to PCBs and DDE are not harmful.

DPH also stated that it was conducting a comprehensive health assessment of the GE-Pittsfield site pursuant to funding obtained through ATSDR. This assessment will gather and analyze existing health-related information; it will not otherwise collect new data.

DPH mentioned that it was considering undertaking a further worker study and that it was engaged in preliminary discussions with GE regarding access to worker records. The other participants to the workshop expressed skepticism about the value of such a study in light of the problems that the well-funded Wegman study and DPH's own bladder cancer study uncovered. Some recommended that rather than pursue such a formal study, DPH should investigate less formal ways to obtain worker exposure information through seeking to obtain and follow up on union rosters. One participant made reference to published reports that 62% of people who worked in Building 12 at the GE plant developed cancer and recommended that someone follow up on what data lay behind such reports.

Residents of the Lakewood area and members of the Housatonic River Initiative discussed their efforts to put together a health survey designed to uncover whether there was an elevated incidence of various health problems in the Lakewood area. The experts who attended the workshop pledged their assistance in reviewing the proposed survey questionnaire once it was drafted. Some of them were skeptical about such a survey being able to prove a link between PCB exposure and adverse problems observed, while at the same time noting that the Woburn study and initial smoking studies began in a similar citizen-driven manner. The residents in attendance at the workshop emphasized the value of conducting such a survey regardless of its "scientific" value in proving direct causal links.

Some of the attendees expressed their view that future studies should focus on children. One expressed his view that "trans-generational effects" (i.e., those effects passed down to a subsequent generation from exposures to a current one) should be

## Report Relative to the Workshop Regarding PCB Contamination

---

studied. While expressing empathy for the concern regarding trans-generational effects, one outside expert pointed out the technical difficulty of doing so. As he put it, "we're having problems getting a handle on studying current health effects [because of the problems discussed above]; the problems would be even worse for studying effects across generations."

Much of the discussion focused on whether there was any readily available data that lay unplumbed. Some participants stated their view that DPH could and should do more to review currently available data from the cancer registry. For example, given the level of concern in the Lakewood area and given the fact that cancer registry data is available by census tract, some felt that DPH should immediately determine how closely the available census tracts "fit" the neighborhood, with follow-up analysis of the registry data as appropriate.

One participant mentioned that the Berkshire Medical Center had a repository of tissue samples from cancer patients that could theoretically be tested for PCB levels. While some of the outside experts were intrigued by this potential source of information, they also expressed great skepticism for two reasons. One is the fact that complicated legal issues may prevent access. The other is that the presence or absence of PCBs may not reveal anything useful. For example, there is no reason to believe that carcinogens would be concentrated in tissues taken from fast-growing tumors that they may have caused. One expert identified hospital discharge data as a potentially more promising source of information that may be reasonably accessible and that might be useful to study non-cancer related illnesses.

All participants emphasized the need for better coordination and increased opportunities for public input. With reference to its upcoming health assessment, DPH indicated that it would consider many of the workshop participants for membership on a DPH advisory committee.

## *Conclusion.*

The people who live at or near PCB-contaminated property in the Greater Pittsfield area, and former GE workers who may have been exposed to PCBs and other potentially dangerous chemicals in the workplace, have serious concerns about the health impacts they face. These concerns involve cancer risks and many other issues as well. Trying to address these concerns through epidemiological studies is extremely challenging, because such studies are typically inconclusive. There is no better example of this than the Wegman study itself. Despite the expertise of the researchers, the state-of-the-art research methods used, and a budget reported to be \$700,000, the study ultimately concluded that, because of inherent limitations in the data available, "[t]here is a high probability, therefore, that even if elevated cancer risks exist in this environment they might not be found."

Without the resources available to Dr. Wegman, DPH sought to design a study that would assess the extent to which people in Pittsfield and southern Berkshire County had been exposed to the PCBs. Serious concerns have been raised regarding the validity and significance of the study's conclusion that the blood levels in the "participants with the highest risk of exposure to PCBs" generally fell within national background levels. In addition, the study did not assess the health risks presented by the blood levels found, and the study's conclusions have clearly been misperceived by many members of the public.

The health concerns held by many people, especially in the Lakewood area, have not sufficiently been addressed by the studies that have been done to date. While there are no easy answers to addressing these concerns, the workshop helped focus people's thinking on specific avenues to pursue. In the interim, everyone agreed that in order to protect the public health with an adequate margin of safety, clean up decisions should be made using ultra-conservative risk-based assumptions.

*Appendix A: Workshop Attendees*

Ann Marie Adams, Pittsfield

Mary Ballew, U.S. Environmental Protection Agency

Stephanie Carr, U.S. Environmental Protection Agency

Barbara Cianfarini, Pittsfield

Dr. Richard Clapp, Boston University

Tish Davis, Department of Public Health

Benno Friedman, Housatonic River Initiative

Mickey Friedman, Housatonic River Initiative

Tim Gray, Housatonic River Initiative

Terry Greene, John Snow Institute

Dr. David Gute, Tufts University

Betsy Harper, Office of the Attorney General

Meg Harvey, Department of Environmental Protection

Dr. Robert Knorr, Department of Public Health

Elaine Krueger, Department of Public Health

Jim Milkey, Office of the Attorney General

Bryan Olsen, U.S. Environmental Protection Agency

Roberta Orsi, Pittsfield

Dr. David Ozonoff, Boston University

Joan Parker, Office of the Attorney General

Wendy Phillips, Mt. Holyoke College

Rob Quinn, counsel for Roman Catholic Bishop of Springfield

Susan Steenstrup, Department of Environmental Protection

---

**INFORMATION BOOKLET  
FOR  
THE FINAL REPORT ON THE HOUSATONIC RIVER AREA  
PCB EXPOSURE ASSESSMENT AND  
RELATED HEALTH ISSUES (SEPTEMBER 1997)**

---

# **INFORMATION BOOKLET**

for

**THE FINAL REPORT ON THE  
HOUSATONIC RIVER AREA  
PCB EXPOSURE ASSESSMENT**

and

**RELATED HEALTH ISSUES**

prepared by

**MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH  
BUREAU OF ENVIRONMENTAL HEALTH ASSESSMENT**

**September 1997**



## QUESTIONS AND ANSWERS

**1. Q. Why was the “Housatonic River Area PCB Exposure Assessment” conducted?**

A. The assessment was conducted to identify the frequency of different activities that might lead to opportunities for PCB exposure, and to determine, through the use of blood testing, how various activities may have contributed to higher serum PCB levels among HRA residents.

**2. Q. What is meant by the “Housatonic River Area” (or “HRA”)?**

A. The Housatonic River Area or HRA comprises eight communities in Berkshire County, Massachusetts: Dalton, Great Barrington, Lanesborough, Lee, Lenox, Pittsfield, Sheffield, and Stockbridge.

**3. Q. What are PCBs?**

A. PCBs or polychlorinated biphenyls are man-made, odorless chemicals. They do not evaporate and do not dissolve easily in water. In the HRA, PCBs were largely used in the manufacture of electrical transformers.

**4. Q. How did PCBs get into the Housatonic River and the surrounding communities?**

A. PCBs were used in the manufacture of electrical and associated products in Pittsfield from 1932 to 1972, and they reached the Housatonic River in large quantities. This contamination was first discovered in the 1970s, in fish and sediments in lakes along the Housatonic. Extensive environmental sampling has revealed widespread contamination of Housatonic River sediments, floodplain soil, fish and other biota. Very recently, some residential properties were found to be contaminated with PCBs due to contaminated fills.

**5. Q. Who conducted the study?**

A. The Housatonic River Area PCB Exposure Assessment was conducted by the Massachusetts Department of Public Health (MDPH), Bureau of Environmental Health Assessment, with support from the Massachusetts Department of Environmental Protection and the federal Agency for Toxic Substances and Disease Registry. The MDPH received input from local citizens or citizens' groups (e.g. Housatonic River Initiative), especially during the study design and protocol development. The MDPH also formed the Housatonic River Area Advisory Committee for Health Studies and MDPH staff held periodic meetings with committee members to report status and get feed back on the conduct of the study.

**6. Q. How were participants chosen for the Exposure Prevalence Study?**

- A. In the Exposure Prevalence Study, 800 households were randomly chosen from among all those located within one-half mile of the Housatonic River in the following eight communities: Dalton, Great Barrington, Lanesborough, Lee, Lenox, Pittsfield, Sheffield, and Stockbridge. Four hundred of those households were from Pittsfield, and four hundred were from the other seven communities.

**7. Q. How were participants chosen for the Volunteer Study?**

- A. In the Volunteer Study, subjects were recruited by means of a Public Service Announcement in local newspapers and radio stations, and through a mass mailing to interested parties. The Volunteer Study allowed those residents who were concerned about PCB exposure, but who were not selected to participate in the Exposure Prevalence Study, to be scheduled for a blood test. MDPH arranged to administer questionnaires to the volunteers in person at three walk-in sites: the Great Barrington Senior Center, the Tri-town Health Department in Lee, and the Berkshire Athenaeum in Pittsfield. The questionnaire administered to the volunteers was the same as the one used in the Exposure Prevalence Study.

**8. Q. How were opportunities for exposure to PCBs assessed?**

- A. A household screening questionnaire was administered to the 800 households. A representative of each household answered questions for all the members of his or her family. After the questionnaires were completed, the responses of every household member were weighted, with those activities more likely to lead to greater potential for PCB exposure weighted more heavily. Thus, those with the greatest potential for PCB exposure would receive the highest weights or scores.

**9. Q. How were respondents selected to participate in blood testing?**

- A. In the Exposure Prevalence Study, individuals with the highest potential exposure to PCBs based on screening questionnaire scores were offered the opportunity for a blood test. Results of blood tests allowed MDPH to determine whether those individuals who were suspected to have had greater opportunities for exposure to PCBs did in fact have higher levels than those with lesser opportunities for exposure. All respondents in the Volunteer Study were offered blood testing.

**10. Q. What was the range of serum PCB levels found in the Exposure Prevalence and Volunteer Studies?**

- A. Sixty-nine residents who participated in the Exposure Prevalence Study had serum PCB levels as follows:

Concentrations of PCBs in Parts Per Billion (ppb)	Number of Individuals
0-4	43
5-9	18
10-14	6
15-20	1
over 20	1

Seventy-nine residents who participated in the Volunteer Study had serum PCB levels shown as follows:

Concentrations of PCBs in Parts Per Billion (ppb)	Number of Individuals
0-4	32
5-9	25
10-14	15
15-20	2
over 20	5

The average serum PCB level in the Exposure Prevalence Study among non-occupationally exposed participants was 4.49 ppb, and in the Volunteer Study, the average was 5.77 ppb. These levels were generally within the normal background range for non-occupationally exposed individuals.

**11. Q. Was occupational exposure related to serum PCB levels?**

- A. Yes. Among all participants who had blood testing, those who had had opportunities for occupational exposure had higher serum PCB levels than the rest.

**12. Q. Was age related to serum PCB levels?**

- A. Yes. Age was found to be the prominent predictor of serum PCB level.

**13. Q. Do most people in the United States have PCBs in their bodies?**

- A. PCBs have been measured in human blood, fatty tissue, and breast milk throughout the country. Ninety-five percent of the U.S. population have serum levels of less than 20 ppb. Ninety-nine percent of the U.S. population have serum levels of less than 30 ppb. The national average for serum PCB level in persons non-occupationally exposed is between 4 and 8 ppb. The greatest on-going source of public exposure to PCBs is from food, particularly fish.

**14. Q. Is there anything I can do to reduce PCB levels in my blood?**

- A. Currently, there is no treatment available to lower PCB blood levels. However, if an individual was exposed, PCB levels will decrease over time once exposure to PCBs has been reduced.

**15. Q. Is it safe to eat fish from the Housatonic River and its tributaries?**

- A. No. In 1982, the MDPH restricted fish, frog, and turtle consumption in the Housatonic River and its tributaries. Because of continued evidence of PCB contamination, it is expected that PCB levels in these species still remain elevated.

Both the Exposure Prevalence Study and the Volunteer Study showed that study participants who had higher frequency and duration of contaminated fish consumption had higher serum PCB levels. Due to health effects that have been suggested as potentially related to PCB exposure, the MDPH maintains that the current ban on these activities in or near the river remain in effect.

**16. Q. Is it safe to eat fish from restaurants, supermarkets, and local markets in the Housatonic River Area?**

- A. Yes. In general, fish caught in marine open and bay waters is the source of most commercial catches in New England and is not affected by PCB contamination from local and freshwater areas. State and federal health regulatory officials regulate fish sold for the commercial markets.

**17. Q. Was consumption of fiddlehead ferns associated with higher serum PCB levels?**

- A. Individuals who reported greater frequency and duration of fiddlehead fern consumption had slightly higher serum PCB levels.

**18. Q. If my only exposure to PCBs is through soil contact, should I be concerned?**

- A. Previous studies conducted by MDPH have not shown that exposure through soil contact alone has resulted in appreciable increases in serum PCB levels. MDPH continues to consider consumption of contaminated fish to be the most significant non-occupational exposure concern. However, due to the recent discovery of widespread residential PCB contamination, MDPH is coordinating a separate study of residents who may be concerned about exposure.

**19. Q. If PCBs have been discovered in soils on my property, what can I do about getting my health concerns addressed or my blood tested?**

- A. MDPH has established a toll free hot-line to advise local area residents about any health related concerns or questions they may have. The exposure assessment questionnaire will be provided to all residents who wish to have their opportunities for exposure evaluated and a blood test taken. The hot-line number is 1-800-240-4266.

**20. Q. What health effects are caused by exposure to PCBs?**

- A. PCBs are not very acutely toxic. Large amounts of PCBs are necessary to produce acute effects. These effects can include skin lesions or irritations, fatigue, and hyperpigmentation (increased pigmentation) of the skin and nails. Chronic effects occur after weeks or years of exposure or long after initial exposure to PCBs. A number of studies have suggested that these effects include immune system suppression, liver damage, neurological effects, and possibly cancer.

**21. Q. What happens to PCBs in your body?**

- A. Once PCBs enter the body they are first distributed in the liver and muscles and then are stored in fatty tissues. PCBs can be stored in fat tissue for years. Also, breast milk may concentrate PCBs because of its fat content. The PCBs can then be transferred to children through breastfeeding.

**22. Q. Are cancer rates elevated in the HRA?**

- A. According to the most recent data from the Massachusetts Cancer Registry, cancer rates during 1982-1986 and 1987-1992 for the eight communities (i.e., Dalton, Great Barrington, Lanesborough, Lee, Lenox, Pittsfield, Sheffield, and Stockbridge) showed that, with the exception of bladder cancer in Pittsfield males during the 1982-1986 period, no statistically significant elevation was noted.

**23. Q. Do PCBs cause reproductive effects?**

- A. Studies have reported that infants born to mothers who were environmentally or occupationally exposed to PCBs had decreases in birth weight, gestational age, and neonatal performance. However, the strength of the association with PCBs is unclear. PCBs have been shown to cause these and other reproductive effects in a variety of mammalian species.

**24. Q. Are there any problems with reproductive outcomes for the HRA?**

- A. According to 1990-1994 birth data from the MDPH Registry of Vital Records and Statistics, infant mortality and the proportion of low birth weight in the HRA were similar to those of the state averages.

---

**POLYCHLORINATED BIPHENYLS (PCBs):  
A FACT SHEET (AUGUST 1997)**

---

# POLYCHLORINATED BIPHENYLS (PCBs)

## A FACT SHEET

Providing Answers to  
Commonly Asked Questions  
Regarding PCB Exposure at the  
Hazardous Waste Sites Associated with the  
General Electric Pittsfield Facility  
and the Housatonic River



Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

AND

United States Environmental Protection Agency  
Office of Site Remediation and Restoration

August 1997

## WHY THIS FACT SHEET?

The Massachusetts Department of Environmental Protection (DEP) and the United States Environmental Protection Agency (EPA) receive many questions from interested Berkshire County residents about polychlorinated biphenyls (PCBs) and how PCBs can affect the health of people who come into contact with them. This fact sheet has been prepared by DEP and EPA to provide answers to commonly asked questions about:

- ▶ PCBs and their harmful health effects;
- ▶ how PCBs entered the environment from the GE facility;
- ▶ how exposure to PCBs can occur and how to tell if you have been exposed;
- ▶ ways to reduce your potential for PCB exposure, and;
- ▶ what is being done to protect public health from PCB exposure.

## WHAT ARE PCBs?

Polychlorinated biphenyls (PCBs) are a family of man-made chemicals that contain 209 different variations, or **congeners**. PCBs are typically found in the environment as mixtures of different congeners. These mixtures are also known as Aroclors®, a trade name of the Monsanto Corporation.

There are no known natural sources of PCBs. PCBs are typically oily liquids, ranging from colorless to light yellow in color. They have no smell or taste. Because they do not burn easily and are a good insulating material, PCBs have been widely used as coolants and lubricants in transformers, capacitors, and other electrical equipment. Consumer products that may contain PCBs include old fluorescent lighting fixtures, hydraulic fluids and electrical devices or appliances containing PCB capacitors made before PCB use was stopped. The manufacture of PCBs was stopped in the

United States in 1977 because of evidence that PCBs build up in the environment and cause harmful effects.

## HOW DID PCBs GET FROM GE INTO THE ENVIRONMENT?

PCBs are present in Housatonic River sediments, in soil, and in fill. There are also **plumes** of PCB-contaminated oil underneath the General Electric (GE) facility in Pittsfield. The plumes underneath the GE facility are masses of PCB-contaminated oil, several feet thick, that are present as a separate layer and do not mix with the groundwater.

There are four major ways in which PCBs entered the environment from the GE facility in Pittsfield.

### ***PCB releases from GE into the Housatonic River***

In years past, PCBs were directly released from the GE facility into the Housatonic River. Once in the river, PCBs attach to river sediments. PCBs do not dissolve easily in water and they do not become separated from sediments or soil easily.

### ***PCB releases to the river via the plumes***

The plumes of PCBs underneath the GE facility flow toward the Housatonic River. In the past, PCBs seeped into the river from the plumes. PCBs are no longer seeping into the river

- ▶ PCBs were released from the GE facility directly into the river.
- ▶ PCBs seeped into the river from plumes underneath the GE facility.
- ▶ During floods, PCBs attached to river sediments were carried by river water up onto the floodplain.
- ▶ Trucks carried PCB-contaminated fill from the GE facility and placed it in low-lying, marshy areas in and around Pittsfield.



from the plumes because GE installed containment systems which pump PCBs out of the ground before they reach the river.

### ***Contamination of floodplain during floods***

During floods, PCB-contaminated river sediments are carried by river water up over the riverbank and onto the floodplain. When the floodwaters recede, the river sediments and attached PCBs are left behind on the floodplain.

### ***Placement of PCB-contaminated fill***

Primarily in the 1940s and 1950s, trucks delivered fill from the GE facility (often at the request of the property owner) to many low-lying, marshy areas in and around Pittsfield. Some of these marshy areas are former oxbows. Other areas are just low-lying or uneven properties where the owner asked GE

to deliver fill so the property would be level. Some, but not all, of the fill that GE provided was contaminated with PCBs. PCBs are bound tightly to the fill and do not move from the fill into groundwater or into other clean areas of soil or fill. Fill also may have been received from sources other than GE. Non-GE fill may or may not be contaminated.

***Oxbows*** are natural bends (or meanders) in a river.

***Former oxbows*** are oxbows that became separated from the main stem of the Housatonic River (after the Army Corps of Engineers straightened portions of the river in the 1940s) and then were subsequently filled.

## **HOW DO PCBs MOVE IN THE ENVIRONMENT?**

**O**nce in the environment, PCBs do not break down easily. They tend to remain attached to particles of soil or sediment. Any process that moves soil or sediment can also move the attached PCBs.

## **Examples of how PCBs move in the Environment:**

- ▶ River sediments (with PCBs attached) can be carried by river water further down river or up onto the floodplain during floods.
- ▶ Fine dry soil (with PCBs attached) can be blown by the wind or stirred up during lawn mowing or dirt biking.
- ▶ In very hot weather, PCBs (if they are present at high levels) can also evaporate in small amounts from the soil into the air.

## **HOW MIGHT I BE EXPOSED TO PCBs?**

**F**or people in Pittsfield and the Housatonic River area, there are two main ways (routes) that exposure to PCBs can occur.

### ▶ ***Touching soil contaminated with PCBs.***

Touching PCB-contaminated soil leads to exposure by **incidental ingestion** (ingestion of PCBs via hand-to-mouth contact) and **dermal absorption** (absorption of PCBs through the skin).

### ▶ ***Eating PCB-contaminated fish or other animals (such as frogs or turtles) from the Housatonic River.***

***OBSERVE THE  
CONSUMPTION ADVISORY!***

***Fish, frogs and turtles from the Housatonic River and Silver Lake are contaminated with PCBs and should not be eaten!***

There are also the following less important exposure routes.

PCBs in air measured to date in residential and recreational areas do not pose a short- or long-term health risk.

**Air:** Breathing air containing PCBs is another source of exposure. However, in the Housatonic River area, levels of PCBs in air in the floodplain are low. None of the levels of PCBs in air measured to date in residential and recreational areas would pose a short- or long-term health risk. The amount of PCB exposure people could receive from the air is much less than the amount of exposure people could receive from touching soil or eating fish.

**Drinking Water:** In Pittsfield and the Housatonic River area, drinking water is **NOT** contaminated with PCBs so this is not a route of exposure to PCBs.

**Workplace Exposure:** Workplace exposures to PCBs can occur during repair, maintenance and removal of PCB-containing materials (such as transformers). Since PCBs are no longer manufactured in the United States, workplace exposures are limited.

## HOW DO I FIND OUT IF I HAVE BEEN EXPOSED TO PCBs?

There are tests to find out if PCBs are in your blood, body fat, and breastmilk. Because PCBs are found throughout the environment, nearly everyone is likely to have some measurable amounts of PCBs in their body. In the United States, average PCB levels in blood among people who have not had exposure in the workplace range from 4 to 8 ng/mL (parts per billion)<sup>1</sup>. Elevated levels of PCBs in comparison to the general population will show that you have been exposed to high levels of PCBs. The tests do not determine the source of your exposure, the exact amount or type of PCBs you have been exposed to, how long you have been exposed, or predict

whether you will develop harmful health effects. Elevated levels of PCBs in your body can suggest that you may have an increased risk of developing harmful health effects compared with the general population.

Blood tests are the easiest and safest method for detecting recent exposures to large amounts of PCBs. If you are concerned and want to find out whether you have been exposed to PCBs, you should contact your doctor.

## HOW CAN PCBs AFFECT MY HEALTH?

The potential for adverse health effects following exposure to any chemical depends upon a number of factors, including how much exposure occurred, the concentration to which the person was exposed and the toxicity of the chemical in question.

PCBs have been shown to produce a wide variety of effects in many animals, including severe skin problems, liver cancer, liver damage and reproductive and developmental effects. Monkeys, which are physiologically more similar to humans than other animals, have developed adverse immunological and neurological effects, as well as skin and eye irritations after ingesting PCBs.

Studies of U.S. workers exposed to PCBs in the workplace show that PCBs can cause skin problems such as acne and rashes and irritation to the nose and lungs. Levels of PCBs in workplaces where PCBs were used are generally much higher than levels found in the environment. There are studies which have reported neurological and behavioral abnormalities in infants born to mothers who ate PCB-contaminated Great Lakes fish, and adverse effects on intellectual function in young children whose mothers ate PCB-contaminated Great Lakes fish. In these studies, the mothers' exposures to PCBs were estimated and not measured directly so these studies do

not provide information about the amount of PCB exposure that leads to adverse health effects.

PCBs may also be potential endocrine disruptors. The term endocrine disruptors applies to any number of a broad class of chemical compounds with the ability to interfere with the normal functioning of hormones. Concern about endocrine disruptors stems from a collection of evidence (primarily in wildlife) on a variety of compounds which indicates that exposure to some chemical agents in the environment which interfere with hormones can potentially lead to adverse health effects, including effects on reproductive function, development, neurotoxicity and immunofunction. At this time, the available information is not sufficient to determine whether PCBs are likely to affect human endocrine systems or to measure potential effects.

The U.S. Environmental Protection Agency has determined PCBs to be probable human carcinogens. This classification is based upon animal studies in which rats that ingested certain mixtures of PCBs throughout their lives developed cancer in their livers. Studies of people exposed to PCBs do not provide enough information to definitively determine if PCBs cause cancer in humans.

### **WHAT ACTIONS HAVE BEEN TAKEN TO ENSURE PROTECTION OF PUBLIC HEALTH FROM PCBs?**

**D**EP and EPA have taken immediate actions (also called short-term cleanup measures or Immediate Response Actions) to ensure protection of public health until a permanent cleanup is completed. DEP and EPA have taken short-term cleanup measures in residential and recreational areas where PCBs exceed the appropriate DEP Short-Term Action Level in surface soil (top six inches).

Short-term measures DEP and EPA have taken to address exceedances of these action levels include soil removal,

placement of vegetative barriers and placement of warning signs and fences.

#### **DEP SHORT-TERM ACTION LEVELS FOR PCBs**

- ▶ **In residential lawns, the Agencies have taken short-term measures when PCBs in surface soil exceed 10 ppm (parts-per-million, mg/kg).**
- ▶ **In recreational areas, the Agencies have taken short-term measures when PCBs in surface soil exceed 30 ppm.**
- ▶ **In walking pathways, the Agencies have taken short-term measures when PCBs in surface soil exceed 50 ppm.**

Many residents and river users already may have been exposed to PCBs for a long period of time. DEP accounted for this in determining the action levels. DEP and EPA are confident that the short-term measures taken will protect people. However, DEP and EPA recognize that it is impossible to know every person's particular activity patterns and chance of exposure from either previous or future activities. Since PCBs accumulate in body fat, every exposure to PCBs adds a little bit to a person's body burden of PCBs. Many people may not know whether they have been exposed, or to what extent, and may want to avoid or minimize further exposure until final cleanups are completed.

DEP and EPA recognize this concern and offer the following recommendations on ways to reduce PCB exposure and potential risks in residential and recreational areas. These recommendations are especially applicable to people who may contact soil and sediment in the floodplain between GE's facility in Pittsfield and the Woods Pond Dam in Lenox. This is the area where sampling shows the highest PCB soil and sediment levels. People who could contact soil or sediment

in areas of lower PCB concentration may also follow these recommendations if they wish to further minimize their potential for exposure until final cleanups are completed. These recommendations also apply to people who may contact soil in areas that have PCB-contaminated fill.

### **RECOMMENDED WAYS TO REDUCE PCB EXPOSURE IN RESIDENTIAL AREAS**

The following are actions you can take if you wish to further reduce your possibility of PCB exposure in potentially contaminated residential areas, until final cleanups are completed.

- ▶ *Minimize skin contact with soil during activities such as gardening and wash soil from your skin whenever possible.*
- ▶ *If you have your own garden, consider reducing or eliminating your consumption of homegrown vegetables. As an alternative, consider growing your vegetables in a raised garden bed filled with clean soil.*
- ▶ *Avoid tracking soil from potentially contaminated areas into your home.*
- ▶ *Minimize activities likely to produce high levels of dust in areas where soil may be contaminated with PCBs. For example, avoid running your mower over areas of sparse lawn during periods of dry weather.*
- ▶ *Limit the amount of time that children might play in potentially contaminated soil to a few days per week.*

### **RECOMMENDED WAYS TO REDUCE PCB EXPOSURE IN RECREATIONAL AREAS**

The following are actions you can take if you wish to further reduce your possibility of PCB exposure in potentially contaminated recreational areas, until final cleanups are completed.

- ▶ *Obey the fish, frog and turtle consumption advisory for the Housatonic River and Silver Lake. Do not eat other food such as shellfish or ducks caught in the Housatonic River or Silver Lake.*
- ▶ *Minimize skin contact with soil and sediment and wash soil and sediment from your skin whenever possible.*
- ▶ *Avoid tracking excess soil into your car or home.*
- ▶ *Minimize inhalation of dust from soils by avoiding activities which generate excessive dust (dirt biking, for example).*
- ▶ *Limit recreational visits and access to the river to about once per week for children who might play in potentially contaminated soil and sediment.*

In response to specific questions from concerned citizens, DEP also evaluated risks from the following three activities.

- ▶ **River Cleanup Work:** cleanup of trash and other debris by community members to help preserve the river.
- ▶ **Competitive Canoeing:** use of canoe launch areas by recreational and competitive canoeists.
- ▶ **Fiddlehead Fern Consumption**

DEP's conclusions and recommendations about these three activities are summarized in the following table.

Activity	DEP Conclusions	DEP Recommendations
<b>River Cleanup</b>	Risks from PCB exposure to volunteers participating in Housatonic River cleanup days are very low.	<ul style="list-style-type: none"> <li>- Wear protective boots and long-sleeved clothing to minimize contact with sediments.</li> <li>- Wash these items or place in a plastic bag before entering your car or home.</li> </ul>
<b>Canoeing</b>	Risks from PCB exposure to canoeists who use canoe launch areas on a frequent basis are very low.	<ul style="list-style-type: none"> <li>- Minimize skin contact with sediment.</li> <li>- Wash sediment from your skin as promptly as possible (especially competitive canoeists who may have more frequent and intense contact with sediment than recreational canoeists).</li> </ul>
<b>Fiddlehead Fern Consumption</b>	<ul style="list-style-type: none"> <li>- DEP sampled fiddleheads growing in PCB-contaminated soil along the Housatonic River. DEP found only <b>extremely low</b> levels of PCBs in the fiddleheads themselves.</li> <li>- Fiddlehead ferns are safe for consumption.</li> </ul>	<ul style="list-style-type: none"> <li>- Minimize skin contact with soil while harvesting fiddleheads (use protective gloves or wash soil from your skin as promptly as possible).</li> <li>- Avoid tracking excess soil into your car or home.</li> <li>- Wash fiddleheads thoroughly to remove all traces of soil before eating.</li> </ul>

## WHAT IF I HAVE QUESTIONS?

For additional information, or to learn more about the short- and long-term cleanup plans or the risk assessment work, contact:

J. Lyn Cutler, DEP, (413) 755-2116

**OR**

Bryan Olson, EPA, (617) 918-1365

### INFORMATION REPOSITORIES

To provide Berkshire County residents with easy access to information relevant to the investigation and cleanup of the Housatonic River and GE Pittsfield sites, EPA and DEP have established Information Repositories at the following locations:

- ▶ Berkshire Athenaeum Public Library, Pittsfield, (413) 499-9480
- ▶ Berkshire County Regional Planning Commission, Pittsfield, (413) 442-1521
- ▶ Lenox Public Library, Lenox, (413) 637-0197
- ▶ Simon's Rock College of Bard, Great Barrington, (413) 528-7274

*All repositories contain official correspondence; Scopes of Work, and reports and documents regarding the sites. Information is sent to the repositories as it becomes available. Information is also available for review at DEP's Western Regional Office, 436 Dwight Street, Springfield, Massachusetts 01103.*

DEP and EPA have established a mailing list containing the names and addresses of individuals who express an interest in receiving information about the disposal sites. Notifications announcing the placement of major new documents in the repositories and notifications of public meetings are sent to people on this mailing list. If you are not already receiving information about the Housatonic River and GE Pittsfield Disposal Sites and would like to be added to the Sites' mailing list, please write to:

Susan Steenstrup, Regional Public Involvement Coordinator  
DEP Bureau of Waste Site Cleanup  
436 Dwight Street  
Springfield, Massachusetts, 01103

or call Susan Steenstrup at (413) 784-1100, extension 264.

---

Notes:

<sup>1</sup> *Toxicological Profile for Polychlorinated Biphenyls*, draft for Public Comment, U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, February 1996.

---

**RESIDENTIAL PROPERTIES WHICH MAY CONTAIN CONTAMINATED  
FILL FROM THE GENERAL ELECTRIC COMPANY (GE):  
QUESTIONS AND ANSWERS (AUGUST 7, 1997)**

---

**Residential Properties  
which may contain  
Contaminated Fill from the  
General Electric Company  
(GE)**

**Questions & Answers**

**Prepared by:**

**The Massachusetts Department of Environmental Protection (DEP)  
in conjunction with  
The United States Environmental Protection Agency (EPA),  
together, “the Agencies”**

**August 7, 1997**

---



## **Sampling**

**If I request that my property be tested because I suspect GE fill to be present, what exactly happens next? What is the process that is put into motion?**

If the Agencies find that there is credible information indicating that GE fill may be present on your property, the Agencies will require GE to approach you to request access for testing. GE will meet with you to gather information to develop an initial investigation plan. GE will ask that you sign an access agreement to allow GE to perform the required work. GE will submit a plan to the Agencies that details their planned investigation for your property. The Agencies will review the plan and approve it (possibly with conditions) and you will be notified by GE before sampling begins. In approximately 45 days from the Agencies' approval of the sampling plan, you and the Agencies will receive a report from GE that discusses the results and proposes next steps, if necessary.

**Who determines which properties are tested, and how is this determined?**

The Agencies determine which properties are tested and have established criteria for screening. These criteria include information on the source of fill, physical evidence of fill, anecdotal information regarding GE fill, etc. Additionally, for each property where PCBs are detected, a complete property survey is conducted by GE to determine the extent of fill. If there is any evidence that the fill may extend beyond the property boundaries, neighboring properties are subsequently tested (under the process described above) and continue to be tested until the extent of fill in the area is defined.

**Who decides where the sampling locations are and how many samples are taken?**

GE proposes a plan containing proposed sampling locations based on the information available about a specific property. The property owner and the Agencies each receive a copy of the proposal. The Agencies review, comment and approve the plan before work begins. Typically, the Agencies initially require a minimum of three borings in areas of suspected fill. If contamination is found, a sampling "grid" is established which dictates the locations of surface soil samples and additional borings. Typically, the sampling grid results in a sampling location every 25 feet.

**If GE tests my property and finds no PCBs, but finds other contaminants not related to GE, what happens then?**

The problem may still need to be addressed. Whether the contamination is addressed and who is responsible for addressing it is dependent on many facts, such as origin, type, quantity, concentration and location of contamination.

**Why are monitoring wells required on some of the properties?**

An extensive investigation of a contaminated property includes an evaluation of possible impacts to ground water. The Agencies requires use of monitoring wells on all properties with extensive contamination. Some of the contaminants that have been found on some properties may impact ground water, if present in sufficient concentration.

**My neighbor knows he has GE fill on his property, but is afraid to come forward. He says he doesn't want to know whether the property is contaminated. Can the Agencies investigate this without disclosing how the information was obtained? If the Agencies say that someone provided the information anonymously, he'll know it came from me.**

The Agencies have received several anonymous tips that have led to sampling. No sampling has occurred without a property owner allowing access. We will work with the homeowner to allow access to GE to compete sampling. If there is fill on a property, several people may have knowledge about it: the source(s) of the fill, the property owner at the time of filling, neighbors in the area at the time of fill, the truck drivers and personnel who hauled, loaded and unloaded the fill and other people in the neighborhood may have spoken about it. If you choose to remain anonymous, the Agencies will honor your request.

**How do I obtain a copy of the test results for my neighbor's property?**

While we respect the privacy of the homeowners to the degree allowed by law, the sampling results and related information is public. Currently, the data and reports are not in the local information repositories. However, the data are presently available for public review at the DEP office in Springfield, as it is with all hazardous waste sites, every Wednesday from 9 - 12, and 1 - 4. You should call ahead (413-784-1100) to ensure that that there have been no changes in schedule. The residential fill properties are filed under their tax parcel identification numbers. However, the repositories will contain information regarding the residential fill properties on or before September 1, 1997. The repositories are listed at the end of this document.

Additionally, if contamination on your neighbor's property extends to your property boundary, you will be notified directly and requested to allow access to your property to determine if the contamination extends beyond the parcel boundary onto your property.

**What about those of us that live within the neighborhoods where there are properties which contain fill from GE; will sampling of our properties be performed so we don't have to convince future buyers (of our properties) that our properties are not contaminated? Will we have something in writing from the DEP or EPA explaining why our properties aren't sampled?**

No wide-scale sampling is planned at this time. We are investigating and will investigate properties where, based on credible information, GE fill may be located. For each property where PCBs are detected, a complete property survey is conducted by GE to determine the extent of fill. If there is any evidence that the fill may extend beyond the property boundaries, the neighboring properties are subsequently tested and continue to be tested until the extent of fill in the area is defined. However, if there is no sampling performed at a property, there will not be something in writing from the Agencies, but we are always available to answer questions from homeowners and prospective homeowners.

**Why doesn't GE just sample the entire neighborhood where PCB-contaminated fill has been found?**

Sampling must be based on reasonable basis and credible information suggestive that there may be a problem related to GE fill.

**(From children's daycare facilities within neighborhoods containing GE fill)  
What assurances can I give to parents that it's safe for their children to be here unless some soil testing is done?**

The contamination we are encountering in fill does not move from the soil of one property to the soil of another. PCBs and related contamination from GE is associated with certain conditions, such as fill on a property, or property location within the 5-year floodplain. You may want to determine who owned your property in the past and inquire whether they have any information about fill or other relevant conditions.

Even if you have fill on your property, it may not be PCB-contaminated fill. If you have questions, you should consult with the Agencies to determine if the situation warrants sampling.

**How long does it take to obtain the sampling results?**

Sampling results are typically obtained within four (4) weeks of sampling. The process involves collection of the sample and subsequent laboratory analysis, preliminary reporting of results, and then the incorporation of the final laboratory results into a report that interprets the importance of the data and proposes additional work. All of this work is being conducted as quickly as possible. The Agencies consider four (4) weeks to be fast for this type of work. Additionally, given that several properties are being investigated all at once, the Agencies and GE have agreed to prioritize investigations based on the likely exposures and extent of contamination.

**If I change my mind about having my property tested now, can I expect GE to sample it sometime in the future, when I decide I want to sell my property?**

Not necessarily. From the Agencies' perspective, now is the best time to determine if your property is contaminated, if you have reason to believe that it may be. If you have reason to believe that there may be contamination on your property, the Agencies encourage you to come forward now. There are no assurances that the Agencies will require GE to investigate your property in the future unless there is credible evidence indicating that GE fill is located on your property. Also, once you are aware that there may be contaminated fill on your property, your awareness may initiate the "statute of limitations," which gives you a set period of time to pursue any legal claims you may have.

**If I decide that I don't want my property tested, am I responsible and/or liable for what may be on the property? Would I have an obligation to a future buyer to disclose that I had originally requested that my property be tested, but then changed my mind?**

Whether you are liable for any contamination on your property depends on the type, concentration, quantity and location of contamination, as well as when the property became contaminated, when the release occurred, and who caused the contamination.

You may have an obligation to disclose known conditions on your property if asked, but you should talk to an attorney or real estate agent for advice.

## **Remediation**

### **Will all the contaminated fill be removed from the property?**

The remedial action that the Agencies will approve is dependent upon site-specific circumstances, including whether the home is placed on fill, the structural integrity of the home, the depth of contaminated fill and the type and concentration of contamination at depth. In some cases, not all contaminated fill will be removed. The Agencies must ensure that the contamination on a property poses no significant risk to human health or the environment. The Agencies also require an evaluation of the feasibility of achieving background levels at a property.

### **How deep will GE be forced to dig in order to remove contaminated fill? And will this depth vary depending upon whether I decide to keep my property or sell it to GE? If there is a difference, why is there a difference?**

Remedial actions may be different for each contaminated property, depending on the extent and type of contamination and structural constraints on removal. A site-specific evaluation will be conducted for each property. The extent of removal may also differ if an "activity and use limitation" (such as, a deed restriction that limits uses that occur on the property) is placed by the property owner. Any activity and use limitations which a property owner proposes as part of a cleanup would require approval by the Agencies. GE's purchase of a residential property could affect the depth of removal if GE places an appropriate activity and use limitation on the property, but would not change the requirement to achieve no significant risk.

### **GE has asked to buy my home. If I decide to stay at my property, can I be assured that GE will remove any contaminated fill from beneath my house?**

No. If there is contaminated fill beneath your home, depending on the risk, location, structural feasibility and cost, the Agencies may not require, and it may not be possible for, removal of contamination from beneath your home. However, the Agencies will require GE to investigate whether, and to what extent, there is any health or environmental risk (if any) posed from contamination beneath a building.

**When will GE start the cleanup? How long will the cleanup take once started?**

Each property is at a different stage of investigation and not all properties that will be investigated will require cleanup. For those properties that are highly contaminated and furthest along in the investigation process, it is the Agencies expectation that the cleanup will begin this construction season. The duration of the cleanup will depend on the size and difficulty of the cleanup (the areal extent of contamination, the depth of the soil to be removed and any structural constraints that may affect the process, such as moving the home, placement of reinforced sheeting to allow removal, etc.)

**Will my family and I have to move during the cleanup? If so, would someone pay for that?**

The need to move during remediation may be necessary or preferable during the remediation of some properties. This is dependent upon many site-specific factors such as the extent of remediation, types of contamination, location of any necessary removal action in relation to your home, and many other factors. GE has expressed a willingness to work with the homeowner involved to handle any temporary relocation issues, if necessary.

**If GE buys all these residential properties, does that mean they can just put up a fence and leave these properties as such, and not have to clean them? What does GE plan on doing with the properties they purchase?**

If GE purchases the property, it has expressed its intention to remediate the property to allow intensive recreational use consistent with the residential character of the neighborhood, without the need for fences. This would include remediation of the surface soil (where the most intense exposures occur), as necessary, to allow for safe use. However, as with any property owner, GE would have the right to fence any or all portions of its property; but, any such fence would not be necessary for restricting exposures, nor would it be required by the Agencies. GE has stated its intentions that other than as temporary measures, it does not intend to fence or pave properties in residential neighborhoods.

**If GE makes these properties into parks or recreational areas, is this okay with DEP and EPA?**

If there is a sufficient cleanup, this would be acceptable to the Agencies. If the plan is to make these properties into parks or recreational areas in order to have a more limited removal effort, this is an option, but not one that has been accepted or rejected by the Agencies. The Agencies would consider GE's proposal and feasibility evaluation in such a case. The feasibility evaluation must include an evaluation of the feasibility of achieving background.

**Nature of Contamination**

**What does GE fill look like?**

The look of GE fill is highly variable. However, the presence of non-native soil objects, such things as scrap metal, broken porcelain insulator parts, wood block flooring, etc., often appears in fill from GE. Additionally, some people have reported problems with the growth of vegetation. However, we have no reason to believe that poor vegetative growth alone indicates the presence of GE fill. Materials that are solely consistent with residential garbage (cans, bottles, etc.) or construction debris (nails, bricks); when present alone, are not strong indicators of the potential for contamination.

**How can you explain finding 20,000 ppm on one property, and not find anything on another property just 10 feet away?**

The contaminants in the fill are not evenly distributed on a property. Such high levels, like 20,000 ppm may be indicative of formerly-saturated materials that have bonded to soils or fullers earth. Fullers earth is an absorbent clay-like material that was used in filtering Pyranol and used in absorbing spills. The contamination is bound to the soil it has contaminated and the soil does not travel across a property, or from one property to another.

**What other kinds of contamination are being found besides PCBs?**

Contaminants other than PCBs, detected at some properties, at levels of concern include semi-volatile organic compounds, metals, dioxins and furans.

**When the streams/creeks near the contaminated properties overflow/flood, does that cause the PCBs to get to my property?**

It may. It is dependent on the amount of sediment in the creek or stream, the presence of PCB contamination in the sediment and the level of that PCB contamination. The Agencies are currently requiring GE to investigate the extent of contamination in sediment and adjacent bank soils.

**Why are the Agencies not concerned about PCB concentrations below 2 ppm?**

Statewide, DEP has established a generic or general default cleanup level of 2 ppm for PCBs for residential use. Average PCB levels below 2 ppm are not considered to pose significant risk for residential use. A site-specific risk assessment may be conducted for a site which may result in slightly different cleanup value.

**Do PCBs move through the soil?**

PCBs, by and large, do not migrate through subsurface soil. Two important physical characteristics of PCBs are that they tend to cling to soil particles and that they do not dissolve easily in water. This means that PCBs are not moving around underground, but will remain where they were placed.

### **Health Concerns**

**(From a property owner with high levels of contamination on property)  
I've worked at GE for over 20 years, and have lived on this property without exhibiting any adverse health effects; so why should I consider leaving or selling my property, or changing my daily outdoor routines?**

While we cannot predict whether someone who has been exposed to PCBs will experience an adverse health effect, we do know that every exposure can increase the body's burden of PCBs. DEP and EPA have recommended several actions you may take if you would like to reduce your exposures to PCBs - until the time a final cleanup is complete. These are listed in the PCB Fact Sheet.



**A few people in my family who lived on this contaminated property have died from cancer; is their death from cancer related to the fill on the property?**

It is difficult to determine whether a person's cancer was caused by PCB exposure because there are so many people who get cancer and so many causes of cancer. The risk that a person will develop cancer in his or her lifetime from any cause is about 1 in 3. We do know that laboratory animals that were fed PCBs developed liver cancer. However, studies of people exposed to PCBs, including workers exposed to high levels of PCBs, have not provided definitive evidence that PCBs cause cancer in humans. The PCB Fact Sheet provides more information about the potential health effects from PCB exposures and provides recommendations about ways to minimize potential exposure.

**How do I know if I've been exposed to PCBs?**

There are tests to find out if PCBs are in your blood, body fat, and breastmilk. Because PCBs are found throughout the environment, nearly everyone is likely to have some measurable amounts of PCBs in their body, whether or not they live in Pittsfield. In the United States, average PCB levels in blood among people who have not had exposure in the workplace range from 4 to 8 ng/mL (parts per billion). Elevated levels of PCBs in comparison to the general population will show that you have been exposed to PCBs. The tests do not determine the source of your exposure, the exact amount or type of PCBs you have been exposed to, how long you have been exposed, or predict whether you will develop harmful health effects. If you do not have elevated levels of PCBs in your body, it is very unlikely that you have an increased risk of developing harmful health effects compared with the general population.

Blood tests are the easiest and safest method for detecting recent exposures to large amounts of PCBs. If you are concerned and want to find out whether you have been exposed to PCBs, you should contact your doctor.

**For additional information, contact:**

J. Lyn Cutler  
Massachusetts Department of Environmental Protection  
436 Dwight Street  
Springfield, Massachusetts 01103  
(413) 784-1100

**OR**

Anna Symington  
Massachusetts Department of Environmental Protection  
436 Dwight Street  
Springfield, Massachusetts 01103  
(413) 784-1100

**OR**

Bryan Olson  
United States Environmental Protection Agency  
JFK Federal Building Boston, Massachusetts 02203  
(617) 573-5747

**INFORMATION REPOSITORIES**

To provide Berkshire County residents with easy access to information relevant to the investigation and cleanup of the Housatonic River and GE Pittsfield sites, EPA and DEP have established Information Repositories at the following locations:

- Berkshire Athenaeum Public Library, Pittsfield, (413) 499-9488
- Berkshire County Regional Planning Commission, Pittsfield, (413) 442-1521
- Lenox Public Library, Lenox, (413) 637-0197
- Simon's Rock College of Bard, Great Barrington, (413) 528-7274

*All repositories contain official correspondence; Scopes of Work, and reports and documents regarding the sites. Information is sent to the repositories as it becomes available. Information on fill properties is currently not in the repositories. It is presently available only at DEP's Western Regional Office, 436 Dwight Street, Springfield, Massachusetts 01103. Information on fill properties will be placed in the repositories on or before September 1, 1997.*

---

**WHAT DEP IS DOING TO CLEAN UP CONTAMINATION  
IN THE HOUSATONIC RIVER (1993)**

---

## What DEP is Doing to Clean Up Contamination in the Housatonic River

# Q & A

### BACKGROUND

The General Electric (GE) facility in Pittsfield was a major user of Polychlorinated Biphenyls (PCBs) for many years, and waste disposal practices as well as spills and leaks of PCB oil have resulted in the contamination of soils, sediments, and groundwater in the vicinity of the GE plant and the Housatonic River downstream of the plant.

The Massachusetts Department of Environmental Protection (DEP) and the U.S. Environmental Protection Agency (EPA) have been involved since the early 1980s in efforts to identify areas associated with the GE plant in Pittsfield which are contaminated with PCBs, to eliminate and control continuing sources of PCB releases, to assess and reduce the risk of human exposure, and to determine the best and most effective long-term cleanup strategy.

### WHAT HAS BEEN ACCOMPLISHED?

At the GE facility in Pittsfield, major efforts over the past several years have included recovery of PCB oil from groundwater, treatment of contaminated groundwater, removal and/or temporary capping of contaminated soils to prevent human exposure, and continuing sampling of soil, air, and water.

In the Housatonic River, major problems identified are the presence of PCB contaminated sediments in Woods Pond and other areas of the river, and elevated levels of PCBs in fish. The Massachusetts Department of Public Health (DPH) issued an updated advisory in 1992 against the human consumption of fish, frogs and turtles taken from the Housatonic River. In addition, the Woods Pond Dam has been reconstructed to minimize downstream migration of PCBs.

In 1990, GE signed agreements with DEP for completion of assessment and cleanup work at the Pittsfield facility and the Housatonic River under the state's waste site cleanup program. Also in 1990, the EPA issued a corrective action permit under federal law which established a process and implementation schedule for assessment and cleanup work. EPA and DEP have signed a Memorandum of Understanding to coordinate regulatory activities and oversight of the cleanup work.

Recently, the EPA and DEP have begun to work together in review of technical documents and have met with representatives of the Housatonic River Initiative (HRI), an umbrella organization of citizens and watershed groups. DEP has also met with floodplain property owners.

### WHAT IS HAPPENING AT THIS TIME?

Based on results of PCB testing of floodplain soils along the Housatonic River downstream of the GE facility in Pittsfield, DEP is requiring action at 16 properties (out of 39 tested) to reduce potential exposures to PCBs. Fifteen of the affected properties are located in Pittsfield and one in Lenox. DEP refers to these actions as "short term measures".

Short term actions could include covering or removal of contaminated soils or restricting access to contaminated soils. When completed, these actions will ensure that residents and visitors can use the river and floodplain safely. DEP is also providing interim guidance to assist river users and visitors who wish to minimize any potential exposure to PCBs.

A public meeting is scheduled for Thursday, July 15 at 7:00 p.m. at Berkshire Community College (room 111 in the Koussevitzky Building) in Pittsfield to discuss DEP's conclusions and the short term measures being required.

DEP has also requested assistance from Suzanne Condon of DPH's Bureau of Environmental Health Assessment (BEHA) at (617) 727-7170 about addressing possible health effects related to past, present, and/or future exposures to PCBs. BEHA staff will be coordinating efforts with the local health departments and will hold a public meeting to discuss citizen concerns in late July or early August 1993.

#### **HOW CAN I BE OR BECOME INVOLVED AND INFORMED?**

A series of public meetings conducted by DEP recently in Pittsfield and Lenox highlighted the increased level of public concern in the progress of studies and cleanup efforts, as well as public interest in becoming more involved in the cleanup process. This information sheet has been prepared as part of an on-going effort to provide information and to respond to the questions and concerns raised at previous meetings. DEP is also currently revising the existing Public Involvement Plan to provide increased opportunities for public participation and information.

You may also wish to contact the Housatonic River Initiative through the following individuals: George Wislocki at Berkshire Natural Resources Council (499-0596); state Rep. Christopher J. Hodgkins (243-0289); or Tom Stokes at the Housatonic Valley Association (637-3188). DEP will continue to meet with HRI, property owners, local officials and other interested parties.

#### **WHAT WORK IS PLANNED FOR THE FUTURE?**

GE has submitted a proposal to DEP and EPA to complete necessary site investigation activities on the Housatonic River, including the floodplain. By October 1993, DEP and EPA expect to complete a review, with public input, of the proposal and to set timetables for completion of sampling, assessment, and evaluation of remedial alternatives. It is expected to take a few more years to reach a final determination on how best to achieve an acceptable level of cleanup of the river, and it will probably take several years to complete the necessary action. DEP will be working with EPA, citizens groups such as HRI, and GE to achieve these goals as quickly as possible.

#### **WHAT IF I HAVE QUESTIONS?**

Contact DEP's Western Regional Office at (413) 784-1100 to speak to Alan Weinberg at extension 220 or Cathy Wanat at extension 241, if you have questions concerning the short- or long-term cleanup plans or the risk assessment work.

---

**PCBs IN THE HOUSATONIC RIVER AND FLOODPLAIN SOIL:  
WAYS TO REDUCE EXPOSURE (JUNE 1993)**

---

## PCBs in the Housatonic River & Floodplain Soil: Ways to Reduce Exposure

# Q & A

### BACKGROUND

The Massachusetts Department of Environmental Protection (DEP) has announced, with concurrence from the Massachusetts Department of Public Health (DPH), the need for actions to ensure protection of public health as a result of PCB contamination in the Housatonic River and surrounding floodplain areas. DEP refers to these actions as "short term measures". Short term measures could include covering or removing contaminated soils or restricting access to contaminated soils.

PCB contamination of the Housatonic River (between the GE facility in Pittsfield and Woods Pond Dam in Lenox) and surrounding floodplain areas is of particular concern because of the potential for people to be exposed. This is the most contaminated area of the river. In deciding to require short term measures, DEP asked its Office of Research and Standards (ORS) to assess the possible risk to area residents, considering all the possible ways people might come in contact with the contamination. A risk assessment is a process used to estimate the likelihood for potential adverse health effects resulting from exposure to chemical hazards.

ORS identified four situations of concern due to contact with contaminated soils and sediments:

- ▶ Frequent exposure to residents of floodplain properties (people who live in highly contaminated areas have the highest possibility of exposure on a regular basis);
- ▶ Occasional exposure in recreational areas;
- ▶ Exposure during participation in Housatonic River cleanup days; and
- ▶ Exposure to people who regularly launch or land their canoes at specific locations in the river.

### WHY ARE THESE GUIDELINES BEING ISSUED?

The potential for health effects from PCBs depends on the level of exposure. Although the chance of serious health effects from current or future exposures is low given the short term cleanup actions to be planned, there are ways to protect yourself and your family from PCB exposure.

Many residents and river users may have been exposed for a long period of time. ORS accounted for this in deciding the action levels that would protect health for the short term cleanup measures. However, it is impossible to know every person's particular activity patterns or situation, and chance of exposure from either previous or future activities.

DEP and DPH recognize the concern about human exposure to PCBs. Many people may not know whether they have been exposed — or if so, to what extent — and may want to avoid any further exposure.

DEP has recommended short term cleanup measures to protect public health until a permanent cleanup can be effected. Part of what needs to be done during this interim period is to collect additional environmental data. The action levels and short term cleanup measures should ensure that people are protected, but potential risks can be further minimized by reducing the opportunities for exposure through some of the recommendations offered here.

These recommendations apply specifically to people who have the potential for soil and sediment exposure in the floodplain between GE's facility in Pittsfield and the Woods Pond Dam in Lenox. These are the areas where sampling shows the most elevated PCB soil and sediment concentrations.

## **WHAT CAN I DO TO REDUCE MY EXPOSURE?**

### **Residential Areas**

Even in floodplain areas where contamination is below the action level, you may still want to avoid any unnecessary contact with the soil until permanent cleanups are completed. The following actions are recommended to further reduce the possibility of PCB exposure:

- ▶ Minimize activities likely to produce high levels of dust in areas where soil may be contaminated with PCBs. For example, mow your lawn only when the soil is damp, and avoid running your mower over areas of sparse lawn.
- ▶ Minimize skin contact with soil during activities such as gardening.
- ▶ Limit the amount of time that children might play in potentially contaminated areas to a few days a week.
- ▶ Wash soil sediment from your skin whenever possible.
- ▶ Avoid tracking soil from contaminated areas into your home.
- ▶ If you have a private garden in floodplain soil, you might want to consider reducing or eliminating your consumption of homegrown vegetables and fruits.

### **Recreational Areas**

People use the river and surrounding floodplains for recreational purposes in many different ways, making it difficult to offer specific guidance to everyone. Considering the exposures evaluated in the risk assessment, you may want to:



- ▶ Limit recreational visits and access to the river by young children who might play in river soils and sediments to approximately one or two days a week.
- ▶ Minimize skin contact with soil and wash your hands and feet after contact with sediments.
- ▶ Minimize inhalation of dust from soils by avoiding activities which generate excessive dust (dirt biking, for example).
- ▶ Avoid tracking excess soil from contaminated areas into your car or home.

### **River Cleanup Activities**

Members of the community have participated in various events to clean up the river. These activities are focused on cleaning up trash and other debris to help preserve the river as a resource that the public can enjoy. In doing its health risk assessment, ORS was aware that two river cleanup events were scheduled for this year. One occurred in early June and another is planned for September. People who participate in these events might have two separate one day exposures over a three month period, and therefore, the health risk would be negligible. However, volunteers and other river visitors could wear protective boots and gloves and longsleeved clothing to minimize exposure to sediments. These items should be washed off and/or placed in a plastic bag before you get into your car or enter your home.

### **Competitive Canoeists**

The Decker launch area is used regularly by canoeists, including competitive canoeists who use the launch area for intensive training periods. Because of the possibility of frequent exposure, ORS is recommending that canoeists minimize direct contact with contaminated river sediments as much as possible. Since it's reasonable to assume that canoeists might have some contact, any soil or sediment that gets on exposed skin areas should be rinsed clean. Further sampling of sediments in this area will be conducted. This information will help determine if any further short term cleanup measures are needed.

### **WHAT IF I HAVE QUESTIONS?**

For additional information, call DEP's Western Regional Office at (413) 784-1100 to speak to Alan Weinberg at extension 220 or J. Lyn Cutler at extension 316 to learn more about the short- and long-term cleanup plans or the risk assessment work. DEP has also requested assistance from Suzanne Condon of DPH's Bureau of Environmental Health Assessment (BEHA) at (617) 727-7170 about addressing possible health effects related to past, present, and/or future exposures to PCBs. BEHA staff will be coordinating efforts with local health departments and will hold a public meeting to discuss citizen concerns in late July or early August 1993.

---

**HAZARDOUS CONTAMINATION AND CLEANUP  
GENERAL ELECTRIC FACILITY  
PITTSFIELD, MASSACHUSETTS AND THE  
HOUSATONIC RIVER (SUMMER 1989)**

---



U. S. EPA Region I

*Update #1*

## Hazardous Contamination and Cleanup

General Electric Facility,  
Pittsfield, Massachusetts  
and the  
Housatonic River

Summer 1989

### EPA Enters New Cleanup Phase at GE

The U.S. Environmental Protection Agency is in the second phase of a permitting process to clean up hazardous waste contamination at the General Electric Company in Pittsfield, Mass. and in the Housatonic River. This action comes in response to the 1976 Resource Conservation and Recovery Act (RCRA), as amended in 1984. Phase two involves issuing a permit requiring GE to investigate hazardous releases into the environment including the plant site and the Housatonic River. The first phase, completed last fall, assessed the potential for contamination. Subsequent phases will evaluate and implement methods for cleaning up the contamination.

EPA and Massachusetts Department of Environmental Protection are working closely to ensure coordination between EPA's Corrective Action Process and Massachusetts' Chapter 21E Process (the State's Superfund Program).

#### New EPA Project Manager

Mary Garren of EPA is heading up the RCRA permitting project for the General Electric facility. Garren has been with EPA Region I's Waste Management Division for three years, and has managed numerous RCRA sites in New England. A graduate in geological sciences from Brown University, Garren is eager for a rapid and efficient corrective action permitting process at the GE facility.

### Public Comments Can Influence EPA Action

Give us your local perspective. That is the message EPA wants to convey as it invites the public to take part in the permitting of the GE facility. Opportunities for people to get informed about the project and give their input include:

- **Project Updates.** Written project updates will periodically inform the public on the progress of the project and the results of investigations. The updates will be sent to everyone on the mailing list and will be placed in the information repositories (see list of locations on reverse side). To get on the mailing list, contact Mary Garren.

- **Informational Meetings.** After the draft permit is issued this Fall, two public informational meetings will be held - one in Massachusetts and one in Connecticut - to discuss the permit before a formal public hearing is held. The public is urged to attend these meetings to learn more about the permit and the corrective action process.

- **Public Hearing.** Within the 45-day public comment period after the draft permit is issued, EPA will hold a public hearing. People are encouraged to attend and give EPA comments on the draft permit. Comments may also be submitted in writing within the 45-day comment period to Mary Garren.

- **Press Releases and Notices.** Press releases and public notices will announce to everyone on the mailing list, including the media, the issuance of the draft permit and the dates, times and locations of the informational meetings and the hearing. A legal notice of a public hearing on the issuance of the permit and the public review period will run in the *Berkshire Eagle*.

- **Information Repositories.** EPA has established six information repositories where the public can review all public records on the corrective action process for GE's Pittsfield facility. (See reverse side for locations.)

### Coming Up...

EPA's draft RCRA permit for General Electric, Pittsfield is scheduled to be issued this Fall. Look for public notices announcing the date, the review and comment period, and the dates for information meetings and a public hearing. Notices will be sent to everyone on the mailing list.

## Information Repositories

*Public documents pertaining to the EPA/General Electric project can be reviewed at the following locations (the Woodbury Library has been dropped because of low usage; however, the Berkshire Athenaeum, Pittsfield, has been added to provide evening hours for public review):*

### Lenox Library

18 Main Street  
Lenox, MA 01240  
Attn: Dennis Lesieur  
(413) 637-0197

Until Oct. 17: Mon.-Sat. 10 AM - 5 PM; After Oct. 17: Tues., Wed., Fri., Sat. 10 AM - 5 PM; Thurs. 10 AM - 8 PM

### Berkshire County Regional Planning Authority

10 Fenn Street  
Pittsfield, MA 01201  
Attn: Karl Heckler  
(413) 442-1521  
Mon.-Fri. 9 AM - 5 PM

### Berkshire Athenaeum

1 Wendell Avenue  
Pittsfield, MA 01201  
Attn: Phyllis Zack  
(413) 499-9488  
Mon.-Thurs. 10 AM-9 PM;  
Fri. 10 AM-5 PM; Sat.  
10 AM-5 PM

### Mass. Dept. of Environmental Protection (formerly DEQE)

436 Dwight Street  
Springfield, MA 01103  
Attn: Richard Green  
(413) 784-1100  
Mon.-Fri. 9 AM - 5 PM

### Connecticut Department of Environmental Protection

Water Compliance Division  
122 Washington Street  
Hartford, CT 06106  
Attn: Charles Fredette  
(203) 566-2588  
Mon.-Fri. 8 AM-4:30 PM

### Housatonic Valley Association

Box 28, Jct. 7/45  
Cornwall Bridge, CT 06754  
Attn: Lynn Werner  
(203) 672-6678  
Mon.-Fri. 9 AM - 5 PM

### For More Information:

Mary Garren  
U.S. EPA, Region I  
Mass. Waste Regulation Section  
JFK Federal Building, HRR-CAN3  
Boston, MA 02203-2211  
(617) 573-9613

United States  
Environmental Protection  
Agency  
Region I  
John F. Kennedy Federal Building  
Room 2203  
Boston, MA 02203-2211

Official Business  
Penalty for Private Use  
\$300



***Hazardous Contamination and Cleanup***  
**at General Electric, Pittsfield, Mass. and the Housatonic River**  
***Update #1***

---

SELECTED EPA, MDEP, AND DPH FACT SHEETS

---

**HAZARDOUS CONTAMINATION AND CLEANUP (FALL 1988)**

---



**U. S. EPA Region I**  
**Fact Sheet 1**

## **Hazardous Contamination and Cleanup**

**General Electric Facility,  
Pittsfield, Massachusetts  
and the  
Housatonic River**

Fall 1988

### **EPA Investigates Hazardous Waste at General Electric**

For the past year, the U.S. Environmental Protection Agency (EPA) Region I has been investigating the General Electric Company facility in Pittsfield, Massachusetts for hazardous waste contamination resulting from past disposal and management practices. The investigation is the first stage of EPA's process of cleaning up hazardous waste from and preventing future releases to the environment - including air, soil, groundwater and surface water - at facilities which currently treat, store and dispose of hazardous wastes. The permitting process is required by the federal Hazardous and Solid Waste Amendments (HSWA, 1984) of the Resource Conservation and Recovery Act (RCRA, 1976) and is known as the "corrective action process."

In the coming months, the EPA will make available to the public the results of the year-long investigation and will hold informational meetings on the project and the cleanup process (see schedule later in this fact sheet). A draft permit will be issued during this time to General Electric (GE) requiring the company to further investigate and clean up specified sites and areas contaminated with hazardous wastes, including the Housatonic River.

Efforts to examine the extent of hazardous waste disposal practices at the GE facility and the resulting effects on human health and the environment have been made throughout the past decade.



General Electric Facility, Pittsfield, Massachusetts

The scope of the current investigation has been limited to identifying areas where hazardous wastes have been and are being handled, and where documented or suspected releases to the environment have occurred. EPA's current activities, however, build upon information from previous federal and state efforts, as well as from GE-prepared reports, including information on PCB concentrations in the Housatonic River.

The purpose of this fact sheet is to provide the public with an overview of EPA's corrective action process at the GE facility and to describe how the process will lead to cleanup efforts. The fact sheet also summarizes previous work which will be used by EPA, to the extent possible, during this process.

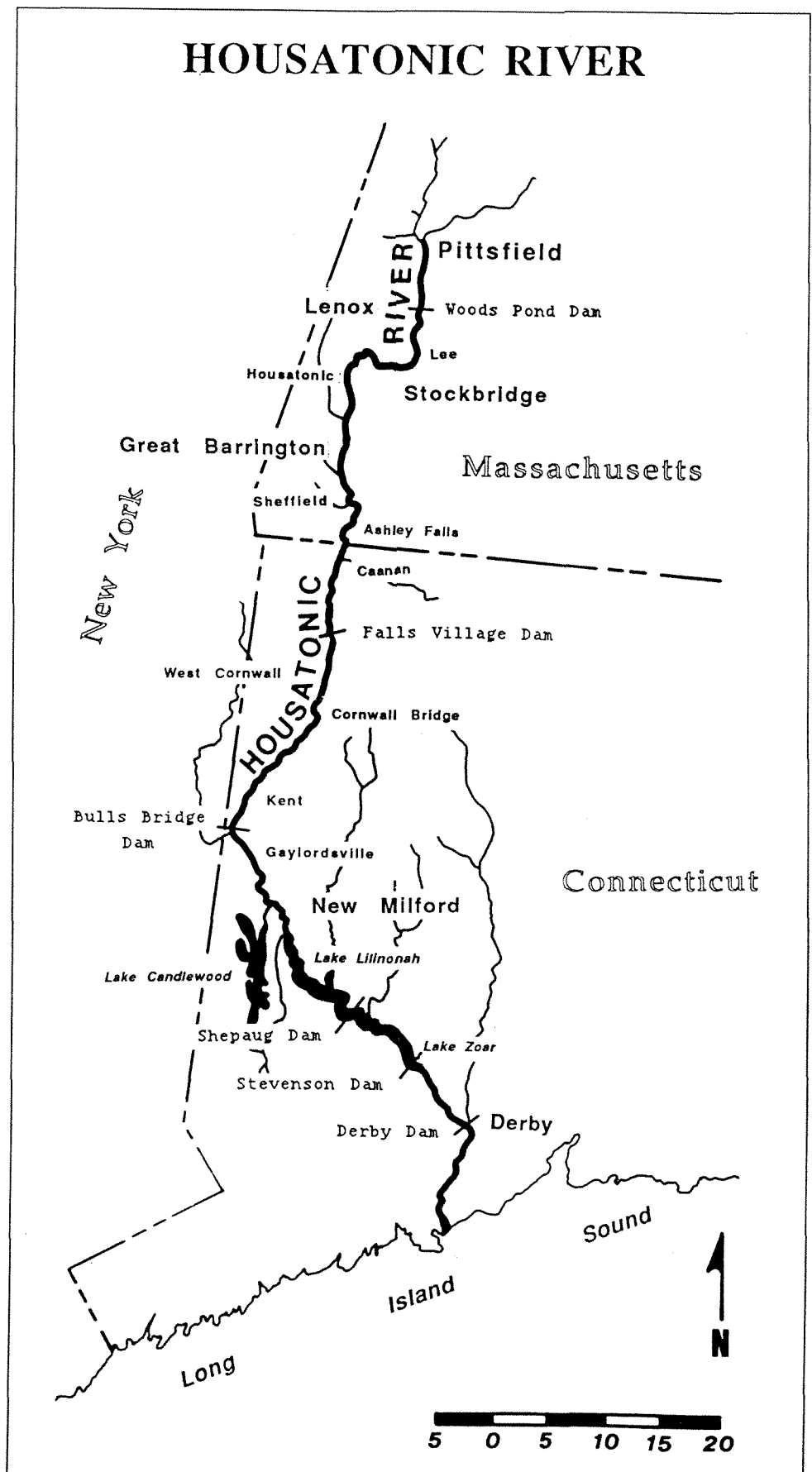
## The General Electric Facility

General Electric's Pittsfield facility encompasses approximately 250 acres with five million square feet of covered buildings. The site is adjacent to the Housatonic River. GE has owned the property since 1903 when it acquired the site from Stanley Electric which, in turn, had purchased a portion of it from the Berkshire Gasification Plant. Evidence of coal tar wastes from the gasification plant remain today. The property slopes towards the Housatonic River and includes portions of the river's and Unkamet Brook's 100-year floodplains. The brook flows through the facility and empties into the Housatonic River.

The facility is divided into three major production areas: Transformer Division, Ordnance Division and Plastics Division. Among the products manufactured are: electrical transformers, capacitors, regulators, synthetic resins, molding compounds, missile-guidance systems and other ordnance (military weapon)-related systems. From 1932 to 1977, GE used polychlorinated biphenyls (PCBs) extensively in the operation of its transformer plant to make pyranol, an insulating oil. (Note: EPA banned the manufacture of PCBs in 1979 because of the substances suspected carcinogenic effects and environmental persistence.) Hazardous wastes, including PCBs, were generated as a result of these manufacturing processes and were disposed of in a variety of ways both on and off site, including in the Housatonic River.

## What Are PCBs?

Pyranol, the insulating oil produced at General Electric, is approximately 60% PCBs by weight. PCBs are dense and stable organic compounds, approximately two times heavier than water. The stability of the substance, viewed by industry as its most desirable property, is now considered to be the reason for its persistence in the environment. PCBs bind to soil and river sediments. Resuspension of sediments,



due to water turbulence, can cause mixing and transport of PCBs in the water column. Studies of the Housatonic River (see below) have found high concentrations of PCBs accumulated in the tissue of fish, frogs and other animals. The potential routes of exposure to humans include inhalation of dust particles in the air, ingestion of contaminated water and food, and absorption through the skin.

## Historical Perspective

### *Housatonic River Studies*

Since the late 1970s, EPA and the states of Massachusetts and Connecticut have been conducting studies and monitoring programs to detect PCBs in the sediments, fish and waters of the Housatonic River. Mean levels of PCBs in fish from the river were found to exceed the Federal tolerance level of 2 parts per million (ppm). As a result, both states have warned against consumption of fish from the Housatonic River between Pittsfield and the Stevenson Dam at Lake Zoar in Connecticut.

In 1981, EPA and the Massachusetts Department of Environmental Engineering (DEQE) issued a Consent Order requiring General Electric to conduct the following three major studies: 1) documentation of the facility's hazardous waste disposal practices; 2) examination of the extent of existing contamination on site; and 3) investigation of contamination of the Housatonic River and corrective action alternatives.

To monitor the progress of the studies an interagency group was formed, known as SEA (State and EPA Agreement). Four public meetings were held where progress of the studies was presented and discussed. Local information repositories were established in both Massachusetts and Connecticut to enable the interested public to review the reports. Periodic updates on the studies were prepared by EPA and mailed to approximately 120 interested citizens and organizations.

The outcome of the studies is a series of reports which include, among other issues, descriptions of alternative cleanup

and disposal options. The studies revealed the presence of approximately 39,000 pounds of PCBs in the sediments of the Housatonic River. Of this amount, 90% are contained in the twelve mile stretch between the GE facility and the Woods Pond Dam in Lenox, Massachusetts, indicating that the facility is the major source of PCB contamination in the river.

In the mid-1980s, DEQE issued an Order to GE, under the Massachusetts Superfund Law Chapter 21E, requiring the installation on site of groundwater pumps to remove oil containing PCBs from the top of the groundwater. PCBs collected from the pumping are burned in a high temperature, thermal-oxidizer incinerator on site. (The incinerator, the only one in Massachusetts, is permitted by the Federal Toxics Substances Control Act.) In 1987, GE also installed a slurry wall (a vertical wall of low permeable clay) to minimize migration of PCBs towards the river.

In the spring of 1988, DEQE issued another Consent Order, signed by GE as well as Kimberly - Clark and Thomas Garrity (former and current owners of the Woods Pond Dam, respectively), requiring the company to install a new closure structure for the Woods Pond raceway canal and to make the necessary repairs at the Dam to ameliorate future transport of PCBs downstream. GE has stated that the Dam has since been purchased and construction of a new dam is underway.

### ***Soil/Groundwater Contamination: Lakewood Area***

In 1980, General Electric discovered PCBs in soils and basement cellars in the Lakewood area of Pittsfield, the residential community closest to the main plant. Wells were drilled and PCB-laden oil was found. GE purchased a number of the properties, and subsequently demolished the houses. The properties remain undeveloped.

### ***Health Studies***

At the same time Housatonic River studies were being conducted, potential health effects on GE employees from PCB exposure were being examined by the company. Former employees who had

worked in the Transformer Division where PCBs were used, and their families, have expressed concern repeatedly about the unusually high rate of cancer, particularly bladder, among fellow workers.

In 1981, GE commissioned a study of workers' mortality. The results of the study, known as the Wegman Report, were expected to be available to the public in the following year. The report is still not complete, although it is expected to be released by the end of 1988. PCBs are suspected to be carcinogens. There is no conclusive evidence, however, that PCB exposure causes cancer in humans. Because PCBs remain in the body for a long time, there is a latency period before any potential effects are evidenced. The potential causes of cancer in a person are many, both genetic and environmental, making it even more difficult to know with certainty the exact cause.

In addition to the Wegman Study, the Massachusetts Department of Public Health (DPW) has been investigating the high rate of bladder cancer in Pittsfield. The study has focused on GE employees. Results from this study are expected to be made public this winter.

## What are HSWA and RCRA?

As previously mentioned, EPA's current efforts to clean up the General Electric site in Pittsfield and the Housatonic River are authorized under the Hazardous and Solid Waste Amendments (HSWA) of the Resource Conservation and Recovery Act (RCRA). In order for General Electric to be able to store, treat and/or dispose of hazardous wastes in the future, the company is required to clean up after past practices. The company is required to obtain two permits: one from DEQE to store, treat and dispose of hazardous wastes currently generated, and one from EPA to take corrective action regarding past disposal. If General Electric fails to comply with the conditions in their HSWA permit, a variety of enforcement options exist, including the revocation of the facility's RCRA operating permit.





Pollutant Discharge Elimination System Permit at low PCB concentrations.)

Unless the source of PCBs to the Housatonic River is addressed and eliminated, the river can never be clean.

It is EPA's belief that the best means of addressing the pollution of the Housatonic River is by coordinating the investigations and cleanup of the river with those of the GE facility in one HSWA permit. EPA has considered addressing the Housatonic River contamination separately through Superfund, but to do so would require a wait of at least three years before being considered for potential listing on the National Priorities List (NPL) of sites. If the Housatonic River were listed, more years of study would follow before cleanup could begin. Thus, EPA believes that the current approach of including the river in the HSWA permit is the most effective and expedient means of addressing the situation.

## How Can I Get More Information?

Public information and input will be very important steps in EPA's permitting of the GE facility. In addition to the required **public hearing** on the draft permit (the official forum for public comments) and subsequent **responsiveness summary**, EPA will provide several opportunities for the public to remain involved and informed. These include:

- **RFA Overview:** An overview of the RCRA Facility Assessment will be sent to all on the mailing list and to anyone requesting a copy. The mailing list consists of individuals and organizations who have expressed an interest in the project. It will be expanded throughout the course of the study.
- **Fact Sheets:** EPA will prepare fact sheets, such as this one, periodically throughout the corrective action process to inform the public of progress and findings.
- **Informational Meetings:** Informational meetings will be held before

and after the Draft HSWA Permit is issued. Following the release of the RCRA Facility Assessment, a meeting will be held in Massachusetts, tentatively scheduled for mid-October, to discuss the investigation and overall process. After the Draft Permit is issued, two additional informational meetings will be held - one in Massachusetts and one in Connecticut - to discuss the contents of the permit prior to the public hearing. Additional meetings will be arranged after the Final Permit has been issued. The public is encouraged to attend these meetings.

- **Press Releases/Public and Legal Notices:** At each critical stage in the corrective action process, press releases and public notices will be prepared announcing the issuance of a document or permit and the location of public meetings. A legal notice on the public hearing following the issuance of the Draft Permit will be prepared. All major media will be sent the notices.
- **Advisory Committee:** Once the final permit has been issued, EPA will consider forming an advisory committee representing the various interests in the project. The committee will meet routinely with EPA and GE officials and provide recommendations on specific courses of action.
- **Information Repositories:** The following six information repositories have been established by EPA to contain all public records on the HSWA permitting process of General Electric's Pittsfield facility. The public is encouraged to use the repositories throughout the process. (See box)
- **Contact Person:**  
George Furst  
U.S. EPA, Region I  
Mass. Waste Programs Section  
JFK Federal Building, HRR-3  
Boston, MA 02203  
(617)573-5746 or  
Dorothy Allen  
(617)573-5766

## Information Repositories

*MA Dept. of Environmental Quality Engineering*  
436 Dwight Street  
Springfield, MA 01103  
Attn: Kevin Sheehan  
(413) 784-1100  
Mon. - Fri. 9 AM - 5 PM

*CT Dept. of Environmental Protection Water Compliance Division*  
122 Washington Street  
Hartford, CT 06106  
Attn: Charles Fredette  
(203) 566-2588  
Mon. - Fri. 9 AM - 5 PM

*Berkshire County Regional Planning Authority*  
10 Fenn Street  
Pittsfield, MA 01201  
Attn: Karl Heckler  
(413) 442-1521  
Mon. - Fri. 9 AM - 5 PM

*Housatonic Valley Association*  
Box 28, Jct. 7/45  
Cornwall Bridge, CT 06754  
Attn: Lynn Werner  
(203) 672-6678  
Mon. - Fri. 9 AM - 5 PM

*Woodbury Town Library*  
Main Street  
Woodbury, CT 06798  
Attn: Jill Smith  
(203) 263-3502  
Mon., Weds., Fri., Sat. 10 AM-5 PM  
Tues., Thurs. 10 AM-9 PM  
Oct. - May; Sun. 1 PM-5 PM

*Lenox Library*  
18 Main Street  
Lenox, MA 01240  
Attn: Mr. Denis Lesieur  
(413) 637-0197  
Mon. - Sat. 10 AM-5 PM  
Oct. - June; Tues., Weds., Fri., Sat. 10 AM-5 PM; Thurs. 10 AM-8 PM

---

**PCB CONTAMINATION IN THE HOUSATONIC RIVER  
(OCTOBER 1987)**

---

## WHERE WOULD THE DISPOSAL SITES BE?

If dredging is the selected clean-up method, a report prepared for the EPA concluded the two most suitable locations for a PCB sediment disposal landfill are old gravel pits located in Lee, Massachusetts. The sites were evaluated for their accessibility, soil components, and environmental impact. The sites share some strong points; they have good soil components, and they are connected to an adequate transportation network. The sites also share weak points; they are near houses, cultural resources and are close to the water table.

## DREDGING QUESTIONS AND ISSUES

- 1. If the river were to be dredged, would there still be a PCB problem?**  
Some PCB's would remain in the river system, as the proposed dredging project only applies to sediments with a 50 ppm and greater PCB content. Also there is PCB contamination surrounding wetlands, and possibly in floodplains downstream.
- 2. Could a PCB landfill leak and contaminate the disposal site area?**  
There is a possibility that eventually there will be leakage, but with proper monitoring leakage will be controllable.
- 3. What is the potential danger to those living along the truck route to the disposal site?**  
Other than an unlikely major accident, there may be an increase in truck traffic and there might be PCB dust leaking from improperly sealed trucks.
- 4. How long would the river be disrupted by dredging?**  
According to Blasland and Bouck Engineers, the river would be disrupted for 3-5 years.

## OTHER QUESTIONS AND ISSUES

- Which costs more; removing the PCB's from the river now, or leaving them there for future generations? Which choice is right?
- If we want the Housatonic to be a swimmable and fishable river, what kinds of inconvenience, unpleasantness and risk are we willing to put up with?
- How much should be spent for clean-up?
- Should GE be responsible for all costs or should the public share the expense?

For more information contact:

Berkshire County Regional Planning Commission  
Mass. Department of Environmental Quality Engineering  
U.S. Environmental Protection Agency

413/442-1521  
413/785-5327  
617/223-4925

Funds for this fact sheet and accompanying radio spots were provided by the Massachusetts Department of Environmental Quality Engineering through the Berkshire County Regional Planning Commission and Galileo Studios. October 1987.

## FACT SHEET

# PCB CONTAMINATION IN THE HOUSATONIC RIVER

Berkshire County Regional  
Planning Commission and  
Galileo Studios  
October 1987

Here are some important facts about the PCB contamination in the Housatonic River. Radio announcements and programs may have referred you to this additional information.

## INTRODUCTION

The estimated 39,400 pounds of PCB's clinging to the bottom and backwater sediment of the Housatonic River accumulated over a 40 year period. The PCB's came primarily from the General Electric Company, Pittsfield plant, which discharged the chemicals into the river thinking them harmless — the accepted opinion until about 20 years ago. PCB's were banned from virtually every use in 1977.

PCB's are a sythetic chemical. Those that escape into the environment are resistant to natural breakdown. Unless there is remedial action, PCB's will remain in the Housatonic River for years to come.

Federal, state and local agencies, as well as commercial and industrial companies are studying the effect of PCB's on humans and the environment. General Electric has in recent years invested millions of dollars in PCB cleanup at its Pittsfield plant, and in studying river contamination and cleanup options.

## HEALTH CONCERNS

Experts have yet to establish a direct link between PCB's and human cancer. Long-term health effects are not fully known. Studies have shown that PCB's:

- cause adverse health effects in laboratory animals, including cancer and reproductive disorders.
- accumulate in the fatty tissues of fish, animals, and people who eat them;
- affect the metabolism of fatty compounds and provoke enzyme changes in the liver and other organs;
- are connected with Chloracne, a skin disease associated with occupational exposure to PCB's.
- create a long-lasting environmental concern since they decompose slowly.

## WHERE ARE THE PCB'S?

Because PCB's bind to river sediments, they move when sediments are washed downstream. It is estimated that less than ten pounds of PCB's per year are flushed out of Woods Pond, a small lake created by the first dam downstream of G.E., in Lee and Lenox.

**TABLE 1  
LOCATION AND ESTIMATED WEIGHT OF HOUSATONIC RIVER PCB's  
IN MASSACHUSETTS**

Location	Length of River Mile	Amount
G.E. facility to New Lenox Road Bridge	7.81	8,510 lbs.
New Lenox Road Bridge to headwaters of Woods Pond	4.4	19,500 lbs.
Woods Pond including holding pond	.38	<u>7,400 lbs.</u>
<b>Total</b>		<b>35,410 lbs.</b>

Samples from Woods Pond sediments range as high as 100 ppm PCB, with average concentrations of 24 ppm. The top foot of sediment contains 80 percent of the PCB's. Concentrations up to 2 ppm PCB have also been found in Housatonic River fish and sediments in Connecticut, particularly in Lakes Zoar and Lillinoah.

## WHAT ARE THE REGULATIONS?

In 1973 the Federal Food and Drug Administration (FDA) established a limit of five parts per million of PCB's for the edible portion of fish and shellfish. Parts per million (ppm) is the common measurement for PCB's. One ppm is equivalent to one drop of dye in sixty-four quarts of water. The FDA set the tolerance level at 5 ppm in 1973 upon discovery that PCB's were a widespread contaminant in foodstuffs. The FDA, knowing little about PCB toxicity set the 5 ppm limit because the DDT limit was 5 ppm, and the FDA perceived PCB's and DDT to be similar.

In 1984 the FDA reduced the tolerance level in fish and shellfish to 2 ppm. This change resulted as the FDA evaluated studies on PCB's. Only the perceived adverse effect upon the fishing industry prevented the FDA Commissioner from reducing the tolerance level to 1 ppm.

A 1980 study of PCB levels in Housatonic River fish from a 62 mile area found trout to have the highest concentration of PCB's. Their levels ranged from 3.3 ppm to 240 ppm depending on their location. That means that those fish contained up to 120 times the federal limit for PCB's. Even sunfish, the least contaminated species studied, had an average 2.9 ppm level of PCB's.

## WHAT CAN WE DO?

General Electric, under a consent order from the Massachusetts Department of Environmental Quality Engineering (DEQE) and the United States Environmental Protection Agency (EPA), contracted an engineering firm to evaluate different methods of clean-up for the Housatonic River. The three major types of proposed solutions are:

METHOD	BENEFIT	DISADVANTAGE	RISK
<b>DREDGING:</b> Removing sediments from river and storing at local site.	Will remove much of polluted sediments	Expensive, need disposal site.	Might send sediments downstream.
<b>BIODEGRADATION:</b> Breakdown of PCB's by introducing "PCB eating" bacteria to river system.	Performed without dredging.	New and undeveloped method, could take years to research.	Unknown byproducts of the biodegradation, the spread of bacteria.
<b>STOP LOG STABILIZATION:</b> A temporary solution of blocking sediments from moving downstream.	Low cost and easily implemented.	Temporary solution which leaves PCB's in river.	Possible weakening of the dam.

---

**PCB STUDIES AND FINDINGS (NOVEMBER 1982)**

---

## PCB studies and findings

Over a quarter million dollars has been spent by the State of Connecticut to study PCBs in Housatonic River sediment, to analyze PCB levels in Housatonic River fish, and to study blood samples and the health of people who consumed Housatonic River fish. The results of these studies have provided some of the most useful information on the Housatonic PCB problem, and are of particular local interest. Now the PCB study effort has shifted to General Electric, in cooperation with the U.S. Environmental Protection Agency and Massachusetts Department of Environmental Quality Engineering.

### Question: Where are the highest concentrations of PCBs in the Housatonic River?

**Findings:** Of the estimated 22,200 total pounds of PCBs in the river sediments, roughly 60% are in the Massachusetts portion, and are located primarily in Woods Pond. About 40% of the PCB total is found in Connecticut, with roughly 30% in Lake Lillinonah and 10% in Lake Zoar. Samples from Woods Pond sediments range from 20-75 ppm, with up to 2 ppm in Zoar and Lillinonah. Downstream movement of PCBs occurs primarily during high flow periods of the river.

**Source:** Connecticut Agricultural Experiment Station, the U.S. Geological Survey and the Connecticut Department of Environmental Protection, 1982.

### Question: What concentrations of PCBs are found in Housatonic River fish?

**Findings:** Fish from the Housatonic River in Connecticut contain high levels of PCBs, with the largest values at 25 ppm in a smallmouth bass, 28 ppm in a carp, and 28 ppm in a white sucker. Of the fourteen different species caught and analyzed for PCBs, all but largemouth bass, black crappie, pickerel and sunfish had PCB levels which exceed the Federal standard of 5.0 ppm. Species with higher levels of PCBs include smallmouth bass, carp, white catfish, American eel, white perch, brown trout and rainbow trout. Fish caught further upstream in Connecticut tend to have higher levels of PCBs, although carp exhibited high levels in all locations. In tests conducted in 1977 and 1979 by the State of Connecticut, PCB levels were found as high as 43 ppm and 38 ppm respectively. In the trout sampled, average levels in the 15-20 ppm range were common.

**Source:** "PCBs In Housatonic River Fish—Statistical Analysis," Connecticut Department of Health Services, 1982.

### Question: What is the danger of eating fish caught in the Housatonic River?

**Findings:** Persons who consumed Housatonic River fish are likely to have higher PCB levels in their blood than those who do not consume the fish. No acute health effects were discovered in the persons who had eaten fish from the Housatonic, although long-term effects remain unknown. The Connecticut Department of Health Services and Massachusetts DEQE recommend that Housatonic fish not be eaten.

**Source:** "Housatonic River PCB Study—Statistical Analysis," Connecticut Department of Health Services, 1981.

### Question: Have the PCBs in the sediments of Woods Pond moved into nearby ground water as the result of well pumping?

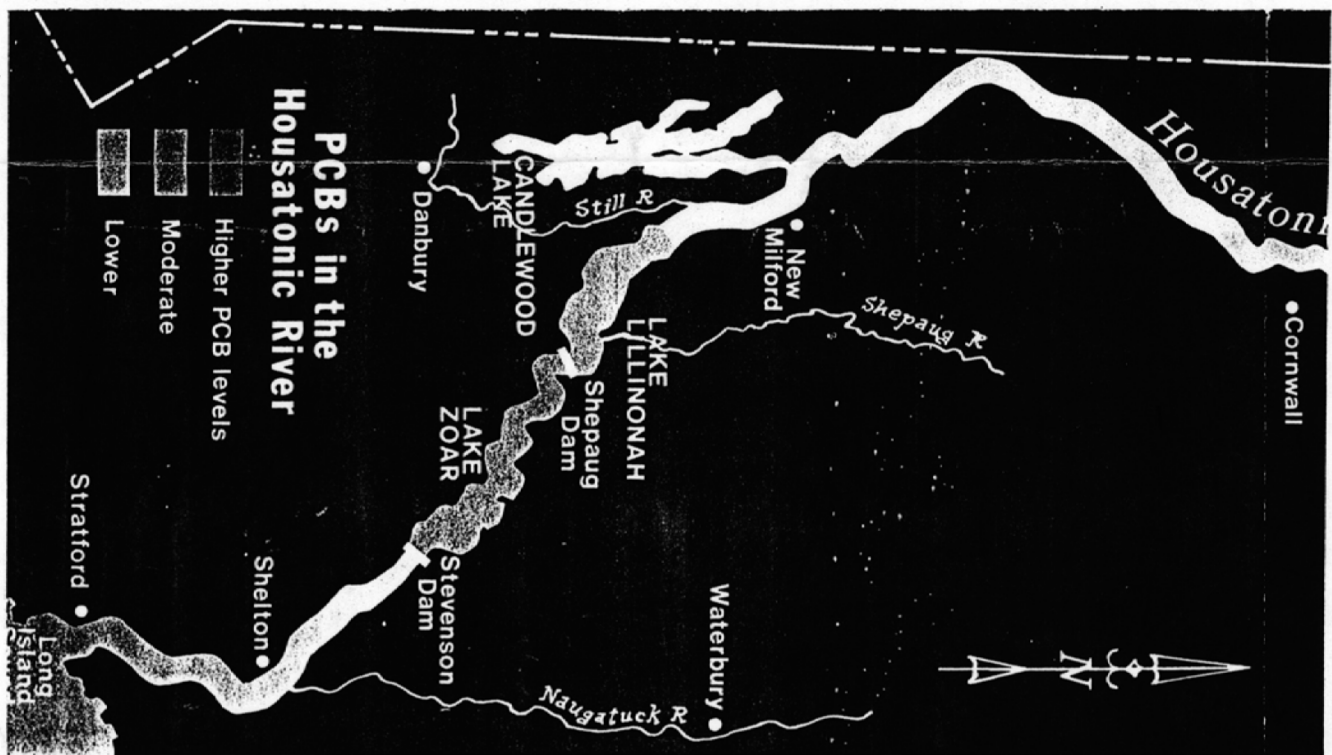
**Findings:** An industrial well located within 50 feet of Woods Pond has been used since the late 1960s. Eleven monitoring wells were installed between the well and Woods Pond to withdraw water at depths ranging from 6 to 63 feet below the surface of Woods Pond.

No PCBs were detected in any of the groundwater or sediment samples. However, according to the Final Environmental Impact Statement for the Washington Mountain Brook Watershed Project (1981), tests conducted in 1977 detected the presence of PCBs in some wells close to Woods Pond, and the Massachusetts Department of Environmental Quality Engineering has, accordingly, noted the possibility of PCB contamination of groundwater in this area. Because of the wide range of test results, the conclusions are in question and further tests will be made. Of further importance, USGS has determined that if the groundwater were pumped for over 180 days, water would eventually be drawn from Woods Pond, an area with contaminated sediments.

**Source:** U.S. Geological Survey in cooperation with Mass. Division of Water Pollution Control, 1981.

### Question: What effect has exposure to PCBs had on industrial workers?

**Findings:** Studies of three groups of workers occupationally exposed to PCBs showed significantly higher levels of PCBs in the blood than the general population. No adverse human health effects or



clinically detectable diseases were found in the workers, though high PCB blood levels in these workers correlates significantly with symptoms suggestive of mucous membrane and skin irritation, of systemic malaise, and of altered peripheral sensation. The liver was shown to be affected by PCB exposure, with long-term health significance unknown. Also, the study emphasized that changes in cholesterol levels in PCB-exposed workers may have adverse long-term cardiovascular significance.

**Source:** "Metabolic and Health Consequences of Occupational Exposure to PCBs," National Institute of Occupational Safety and Health, 1981.

**Question: What is the effect on reproduction and the newborn in rhesus monkeys exposed to low levels of PCB?**

**Findings:** The monkeys were fed a diet consisting of 2.5 ppm and 5.0 ppm PCB for seven months, and their health monitored.

Female rhesus monkeys were far more adversely affected by low level PCB exposure than male monkeys. The study shows a dramatic impact on reproductive health of the females, as well as severe effects on the newborn.

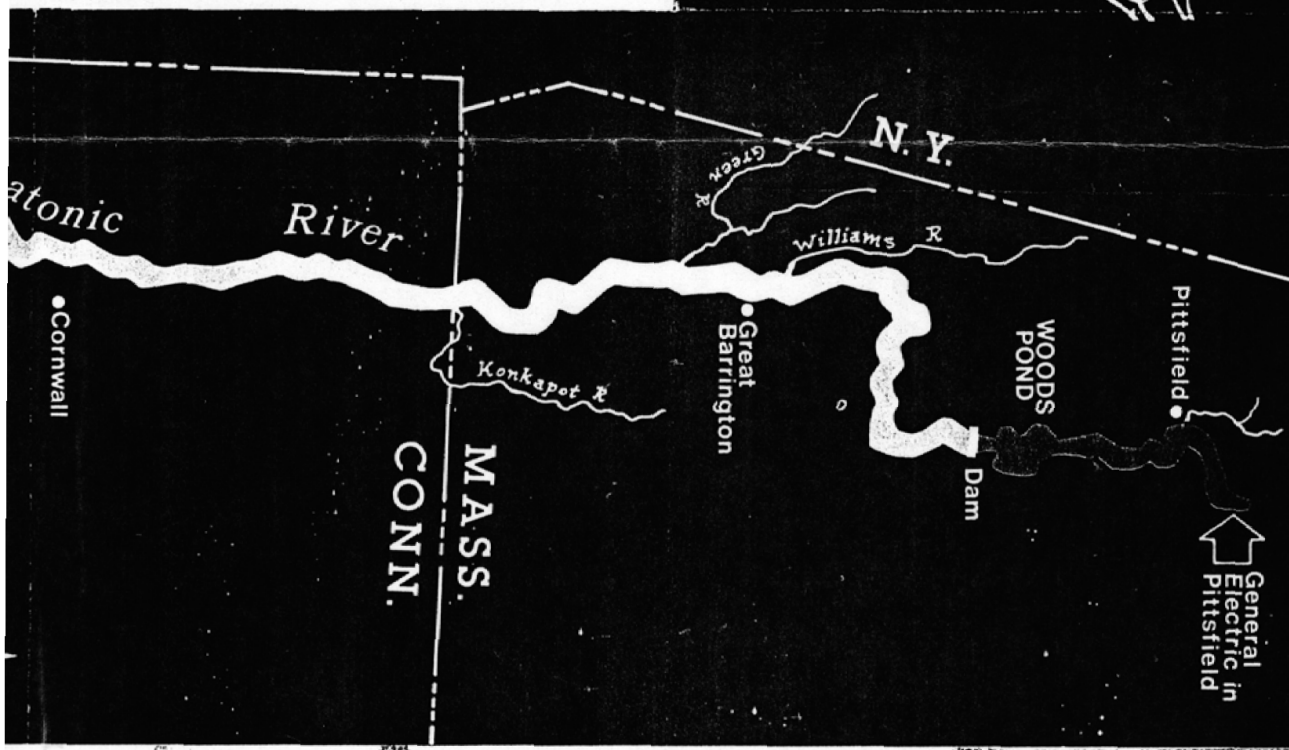
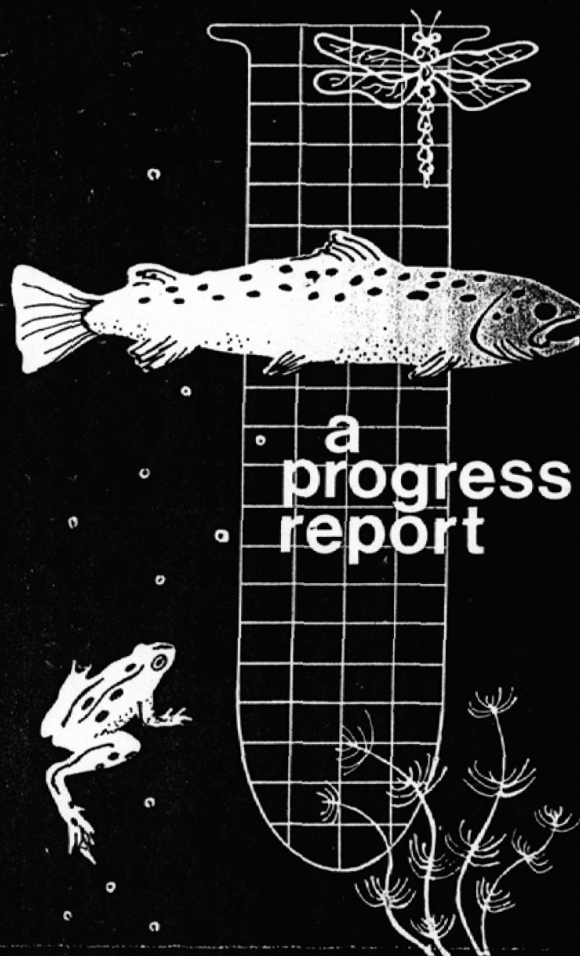
**Source:** "Reproductive Dysfunction in Rhesus Monkeys Exposed to Low Levels of PCBs," University of Wisconsin, 1975.

**Question: What is General Electric doing about the Housatonic PCB situation?**

**Study:** In 1981, General Electric signed an agreement with the Massachusetts Department of Environmental Quality Engineering and the U.S. Environmental Protection Agency. General Electric agreed to report on major PCB problems: past and present hazardous waste disposal practices, including estimates of the amount of PCBs stored on-site or disposed off-site, and amounts of PCBs discharged into the Housatonic River; future plans for PCB storage, treatment, and disposal; a study of the distribution of PCBs in the Housatonic River; an analysis of PCB transport; a sampling and testing program of PCB levels in fish, frogs, and other aquatic life normally consumed by humans; and an analysis of PCDF concentrations in three sediment and four fish samples from Massachusetts.

Based on the results of these studies, General Electric will submit a proposal of alternative courses of remedial action for Woods Pond. These alternatives include dredging, in-place containment, treatment, or no action.

# PCBs and the Housatonic River





## Introduction

Increasingly, PCBs make news: What are they? Are they a health hazard? What is being done about them? How is the government addressing the concerns of Housatonic valley residents? What studies are being made, and what do these studies show?

PCBs, which are listed in the U.S. Toxic Substances Control Act of 1976, are currently found throughout the Housatonic River ecosystem in the river sediment, and in river fish and wildlife. The PCBs were discharged into the Housatonic for over 40 years by the General Electric Company, Pittsfield plant, as well as other industries along the river in both Massachusetts and Connecticut.

The State of Connecticut, along with the U.S. Geological Survey and the Connecticut Agricultural Experiment Station, has worked for many years to determine the extent and significance of PCB contamination. These studies have analyzed river sediment, fish, and blood of people who consume Housatonic River fish.

General Electric Company has, in recent years, invested millions of dollars in cleaning up PCBs at its Pittsfield site, and in studying river contamination. The company has also agreed to study and report on two major local PCB problem areas: hazardous waste disposal practices and Housatonic River contamination.

Many other agencies—federal, state, local, private, industrial—are also studying the possible effects of PCBs on animals and humans. A few of the most recent studies are summarized later in this brochure, particularly those concerning the Housatonic valley.

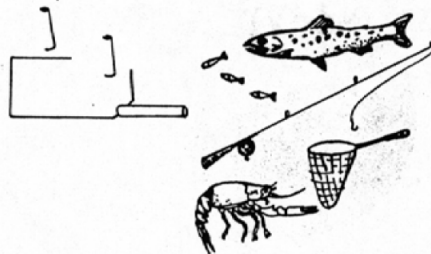


This brochure is a progress report regarding PCB investigations and potential future action. While the concerns about PCBs are extensive, we are encouraged to find that cooperation in resolving the problem is evident and we note that this brochure was written through the mutual interest and cooperation of government agencies and citizen-supported watershed associations.

As the PCB issue continues to be evaluated, Housatonic valley residents have a right to be kept informed of any study results and action, or inaction, which may affect us and our use of the river.

### For additional information contact:

Berkshire County Regional Planning Commission  
413/442-1521  
Connecticut Department of Environmental Protection  
203/566-3245 and 203/566-4630  
Housatonic River Watershed Association  
413/637-1342  
Housatonic Valley Association  
203/927-4649  
Mass. Dept. of Environmental Quality Engineering  
413/785-5327  
Mass. Department of Public Health  
617/727-2660  
U.S. Environmental Protection Agency  
617/223-5600



## Where did PCBs come from?

PCBs, or polychlorinated biphenyls, are a family of stable and persistent chemical compounds manufactured in the United States from 1929 to 1977. They were used chiefly as a coolant in electrical transformers, capacitors, and heat exchangers. Other uses included the production of paints, adhesives, auto parts, carbonless copy paper, rubber products, printing ink, and plastic wrappers. It is also known that waste oil containing PCBs was used as a road covering to control dust.

The manufacture and use of PCBs, other than in certain electrical equipment, has been banned in the United States since 1977. Other than some possible leaching from landfill disposal sites, there is currently little flow of PCBs into the river.

## Why are PCBs a concern?

Long-term health implications of PCBs are not yet known, though recent studies have shown no direct link between PCBs and cancer in humans. However, additional concerns include:

- *PCBs at elevated levels in the blood have been linked to two health effects, chloracne and liver enzyme changes, particularly among industrially exposed workers.*
- *PCBs have been shown to cause adverse health effects in laboratory animals, including cancer, skin disorders, gastric disorders, and serious reproductive complications.*
- *PCBs decompose slowly in the environment, creating a long-lasting concern.*
- *PCBs build up in the food chain. As PCB-contaminated fish and insects are eaten by other fish, fowl, turtles or frogs, concentrations increase and, at the end of the food chain, man may consume significant amounts of PCBs.*
- *PCBs are difficult and expensive to dispose of safely. One method of destroying virtually all PCBs is by incinerating them at temperatures of at least 2200 degrees F. Another safe disposal method is burial in specially designed landfills. In the past, a major disposal method was burial in town dumps, which is now illegal. G.E. has been incinerating low concentrations (less than 500 ppm) of PCBs in Pittsfield for several years, and has recently started incinerating higher concentrations (up to 200,000 ppm) of PCBs, one of only three high-concentration PCB incinerators in the United States.*

## PCDFs—a new concern

As more sophisticated technology is used to study PCBs and their occurrence in the environment, scientists now believe that very toxic impurities associated with PCBs, particularly PCDFs (polychlorinated dibenzofurans), are a major concern. Since traces of PCDFs have been found in fish caught in Woods Pond, it is important that the health hazards of these even more toxic chemicals be evaluated.

The following is known about PCDFs:

- PCDFs can form when PCBs are burned at temperatures too low to destroy them.
- PCDFs are up to 1000 times more toxic than PCBs.
- PCDFs probably entered the Housatonic River in PCB mixtures discharged by General Electric.
- PCDFs are found in minute concentrations in Housatonic River fish.

## Where are PCBs found in the Housatonic River?

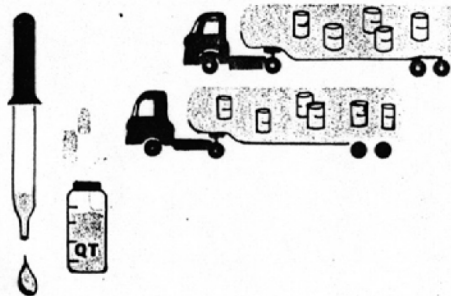
PCBs in the Housatonic are found in aquatic life (particularly fish and aquatic insects on the bottom), water, and sediments. PCBs are essentially insoluble in water, are heavier than water, and tend to accumulate in river sediments. PCB levels in the river are high among sediment samples and show a strong relation to the distribution of fine sediments. The State of Connecticut has found that the concentration of PCBs in river sediments increases gradually with increasing distance upstream in Connecticut, and then increases sharply in Woods Pond in Massachusetts, the first impoundment below Pittsfield.

- The principal source of continued flow of PCBs in the Housatonic River into Connecticut appears to be from the sediments in Woods Pond in Massachusetts.
- Although PCBs are found mainly in the Massachusetts portion of the river, particularly Woods Pond, they are also found in the downstream river impoundments, including Lakes Zoar and Lillinonah in Connecticut.
- In the New Milford Bay area of Candlewood Lake, where water is pumped into the lake from the Housatonic River, PCBs have been detected in fish and sediment at levels quite low compared to Lakes Zoar and Lillinonah.

## How are PCB concentrations measured?

PCBs are commonly measured in parts per million (ppm) or parts per billion (ppb). One ppm is the equivalent of one drop of dye in 64 quarts of Housatonic River water, and one ppb is the equivalent of one drop of dye in 400 barrels of river water.

Current allowable human exposure levels for PCB consumption are set by the Federal Food and Drug Administration at five parts of PCBs per million (5ppm) parts of fish, shellfish, and the fat portion of poultry, and 2.5 ppm in the fat portion of milk and dairy products.



## How are Housatonic valley residents directly affected by PCBs?

- Persons who consume Housatonic River fish have shown above-average PCB levels in their bodies. Many fish in the river are contaminated with PCBs at levels which exceed federal standards for human consumption.
- Fishing, frog hunting and waterfowl hunting are popular sports in many areas of the Housatonic. PCBs concentrate in the food chain, with fish having higher PCB levels than their water environment. Fish accumulate PCBs through their gills and while feeding; as other fish, birds and mammals consume PCB-contaminated aquatic life, each acquires a higher level of PCB concentration, finally ending up in the bodies of persons consuming such fish and wildlife.
- Frog hunting and the sale of frog legs is a minor industry in the Woods Pond area. While tests show high PCB concentrations in frogs, PCB levels have not been studied in people who have consumed the frogs.
- The states of Massachusetts and Connecticut continue to recommend that Housatonic River fish not be eaten (except at Candlewood Lake and below Stevenson Dam).
- Industrial workers exposed daily to high levels of PCBs generally have higher PCB concentrations in their bodies than those exposed to low level PCBs by eating fish. The health effects of occupationally exposed workers range from virtually no apparent ill effects to skin eruptions and internal disorders.
- PCBs disposed of in the ground and in landfills have the potential to contaminate groundwater and wells.

## Conclusion

*PCBs may or may not be dangerous to your health; the jury is still out.* The only well-documented adverse health disorder is chloracne, a skin ailment associated with occupational exposure. Both industrially exposed workers and persons who consumed PCB-laden fish have higher than average levels of PCBs in their bodies, but have not shown a higher rate of cancer and other serious illnesses.

PCBs and PCDFs may be a substantial danger to health and the environment, and are currently being studied in the Housatonic. Clearly, progress is being made on determining the effect of PCBs and PCDFs on the Housatonic River and its watershed. When the studies are completed, we will know more about the extent of PCB contamination in the river, what to do about it, and what additional studies are needed.

More than 1000 studies on various aspects of PCBs have been made worldwide, nationally, and locally since PCBs were first recognized to be a public health hazard in the 1960s. Government agencies on all levels, industry, health commissions, and private groups are studying the problems. The major findings of a few of the most important Housatonic River basin studies and other pertinent studies follow on the reverse side.

This brochure was prepared by the Berkshire County Regional Planning Commission, the Housatonic River Watershed Association, and the Housatonic Valley Association, in Cooperation with the U.S. Environmental Protection Agency, the Connecticut Department of Environmental Protection, and the Massachusetts Department of Environmental Quality Engineering.

Although this report has been funded in part by the U.S. EPA through grant #P00105201-8 to the Berkshire County Regional Planning Commission, it has not been subjected to EPA's required peer and policy review, and it does not necessarily reflect the views of the agency and no official endorsement should be inferred.  
November, 1982

---

**ATTACHMENT I**

**PROJECT CHRONOLOGY**

---

# ATTACHMENT I

## GE/HOUSATONIC RIVER PROJECT CHRONOLOGY

- 1903 – General Electric Company (GE) purchases Stanley Electric’s transformer manufacturing facilities located in Pittsfield along East Street.
- 1932 – GE begins to use polychlorinated biphenyl (PCB) transformer oils at the Pittsfield, Massachusetts plant.
- 1952 - PCB-contaminated oil is discovered on East Street residential property.
- 1968 - Collapse of a storage tank at Building 68 releases PCB oil into the Housatonic River.
- 1972 - A thermal oxidizer is constructed to destroy PCB-containing liquids.
- 1974 – GE was first issued a National Pollutant Discharge Elimination System (NPDES) permit. To satisfy permit requirements, GE begins the installation of oil/water separators to reduce oil discharge to Silver Lake, Unkamet Brook, and the Housatonic River.
- 1977 - The GE Pittsfield facility discontinued PCB use in the manufacture of transformers.
- August 1980 to June 1981 - Removal of contaminated sludge from former waste stabilization basin at Unkamet Brook. The basin is filled and capped.
- May 27, 1981 - GE and Massachusetts Department of Environmental Quality Engineering (DEQE) (currently Massachusetts Department of Environmental Protection [MDEP]) sign Administrative Consent Order. PCBs and other contaminants in the Housatonic River, Silver Lake, Unkamet Brook, and at the GE facility are to be evaluated. GE is required to propose a sampling and monitoring program for the Housatonic River and for contamination and disposal practices at the facility.
- December 1982 - GE issues Housatonic River Study (prepared by Stewart Laboratories) covering 1980 and 1982 investigations.
- 1982 - Signs warning against consumption of fish, frogs, and turtles are posted along the Housatonic River.

## PROJECT CHRONOLOGY

- December 1982 - Frink Study documents PCB transport and distribution in Housatonic River.
- February 1983 - Harza prepares report documenting September 1982 inspection of dam during repairs by Kimberly Clark Corporation.
- 1984 - Gay & Frimpter U.S. Geological Survey (USGS) issue report demonstrating no impact of Woods Pond sediments on adjacent aquifer.
- March 1984 - GE issues report entitled "Report on Initial Screening of Housatonic River Remedial Alternatives."
- April 1984 - Stewart Laboratories issues report documenting additional investigations performed during 1983.
- May 1984 - GE issues report entitled "Report on Proposed Engineering Evaluation of Selected Housatonic River Remedial Alternatives."
- October 1984 - GE issues 45-Day Interim Report evaluating potential sediment disposal sites.
- February 1985 - GE submits 90-Day Interim Report evaluating river channelization, in situ impoundment, and flow and sedimentation control.
- April 1985 - GE issues Notice of Intent Permit Applications to Towns of Lee and Lenox to allow for Velocity and Sedimentation Control Pilot Study activities.
- May 1985 - GE submits 135-Day Interim Report evaluating sediment removal and local disposal, river channelization, in situ impoundment, flow and sedimentation control, and biodegradation.
- May 1985 - GE accepts bids for construction of stop log baffle system at location of existing slots in raceway channel at Woods Pond.
- June 12, 1985 - Town of Lee Conservation Commission issues Order of Conditions providing local approval of Velocity and Sedimentation Control Pilot Study. Town of Lenox does not respond.
- July 1, 1985 - DEQE authorizes GE to proceed with Velocity and Sedimentation Control Pilot Study.
- July 1, 1985 - GE prepares to initiate Velocity and Sedimentation Control Pilot Study; however, access issues prevent study from beginning.

**PROJECT CHRONOLOGY**

- September 1985 - Berkshire County Regional Planning Commission retains Malcolm Pirnie to evaluate wet dredging techniques.
- October 1985 - GE submits Revised Notice of Intent document incorporating comments from DEQE regarding possible air emissions.
- 1985 to 1986 - Feasibility study of river remediation alternatives - dredging tabled; biodegradation and dam reconstruction studies proceed.
- May 23, 1986 - EPA and DEQE issue Conditional Approval of 135-Day Interim Report.
- June 1986 - GE responds to DEQE Conditional Approval with conceptual descriptions of monitoring plan.
- August 1986 - GE prepares contract for construction of stop log baffle system at existing sluice gate structure in raceway channel at Woods Pond.
- August 1986 - EPA requests additional details on monitoring plan for Velocity and Sedimentation Control Pilot Study at Woods Pond.
- August 1986 - GE issues 135-Day Interim Report Addendum responding to EPA 5/23/86 comments (more details on dredging, biodegradation, and resampling plan).
- September 1986 - GE issues letter indicating schedule delay due to possible dam stability concerns at Woods Pond and failure to reach agreement with pipeline owners and property owner.
- October 1986 - GE retains diver to evaluate timber crib dam abutment.
- October 1986 - GE issues report which documents dam stability concerns.
- October 1986 - GE proposes relocation of stop logs to sluice gate structure.
- November 1986 - EPA commissions U.S. Army Corps of Engineers (USACE) to perform Dam Stability review.
- February 1987 - GE collects additional sediment cores for cesium (CS)-137 dating and biodegradation assessment.
- March 1987 - GE transmits to EPA revised report "Velocity Control and Sediment Control Alternatives - Stop Log Baffle System Monitoring Study Overview."

**PROJECT CHRONOLOGY**

- April 1987 - EPA issues PRC report which identifies potential local sediment disposal sites.
- April 1987 - EPA issues letter outlining comments on draft monitoring plan for Velocity and Sedimentation Control Pilot Study.
- June 1987 - GE issues Work Plan for Housatonic River - Velocity and Sedimentation Control Pilot Study.
- September 1987 - USACE issues Woods Ponds Dam, Phase I Inspection Report.
- October 23, 1987 - EPA authorizes GE to proceed with Velocity and Sedimentation Control Pilot Study baseline activities.
- October 1987 - GE collects preliminary baseline data for Velocity and Sedimentation Control Pilot Study.
- March 1988 - GE issues Housatonic River Remedial Action Selection and Scope of Work for Woods Pond dam rehabilitation.
- June 1988 - GE collects second round of baseline data.
- June 1 to 3, 1988 - GE issues Woods Pond Dam, Phase II Inspection Report.
- June 9, 1988 - GE, Kimberly Clark Corporation, L.B. Corporation, and Valley Mill Corporation sign an Administrative Consent Order (ACO) with MDEP to perform an investigation and rehabilitate and/or replace the dam and raceway structures associated with a former power generating facility at the Valley Mill Dam at Woods Pond. MDEP requires the parties signing the ACO to perform this work to prevent future downstream migration of PCB-contaminated sediments that have accumulated behind the dam at Woods Pond.
- August 1988 - Velocity and Sedimentation Control Pilot Study First Status Report is issued.
- September 1988 - GE collects third round of baseline data, initiates "Controlled Flow" and water column monitoring.
- October to December 1988 - A closure structure is constructed across the existing raceway channel located east and downstream of the existing Valley Mill Dam at Woods Pond. The work entails the construction of a closed-box sheetpile structure and a mid-channel structure with concrete stoplogs, and placement of dumped and grouted riprap in selected areas to stabilize an embankment between the headrace canal and the river channel. The new closure structure will provide a means of emergency release or reservoir drawdown.

**PROJECT CHRONOLOGY**

- October 12, 1988 - GE issues Operation and Maintenance Manual for Woods Pond Dam.
- October 12, 1988 - GE issues Dam Safety Plan and Emergency Action Plan for Woods Pond Dam.
- March 1989 - Issuing of Velocity and Sedimentation Control Pilot Study Second Status Report.
- June to December 1989 - GE initiates and performs extended water column monitoring program in accordance with replacement activities for Woods Pond Dam.
- August 1989 - GE collects fourth round of velocity data.
- September to December 1989 - Construction of a replacement dam at Woods Pond approximately 100 feet downstream of the existing old structure and adjacent to the closure structure constructed the previous year. A crest spillway is constructed in the main river channel in conjunction with a non-overflow section between the headrace channel and the river channel. Construction of the new dam is required to ensure dam safety and integrity over the long term to prevent further downstream migration of PCB-contaminated sediments.
- March 16, 1990 - MDEP establishes GE sites as Public Involvement Plan sites under the Massachusetts Contingency Plan, thereby establishing a formal plan for the public to be informed of and involved in response actions.
- April 24, 1990 - Public meeting to present MDEP Draft Public Involvement Plan, site updates, regulatory history, and MDEP Consent Orders.
- May and July 1990 - Massachusetts Department of Environmental Protection (MDEP) executes two Administrative Consent Orders with GE to evaluate the nature and extent of contamination in the Housatonic River, Newell Street I, East Street Area I, East Street Area II, Hill 78 Landfill Area, the GE facility, and related sites, in order to evaluate and select remedial alternatives. The Administrative Consent Orders are executed on May 22 and July 2.
- June 1990 - Final Public Involvement Plan is issued.
- 1990 to 1991 - Discovery and capping of PCB-contaminated soils at Allendale School as a Short-Term Measure under the Massachusetts Contingency Plan.



**PROJECT CHRONOLOGY**

- February 8, 1991 - EPA issues Resource Conservation and Recovery Act (RCRA) Corrective Action Permit to GE facilities.
- Summer 1991 - Hill 78 Landfill is capped to prevent stormwater infiltration. The cap is inspected semi-annually. In addition, perimeter wells are installed. They are monitored to track leachate migration.
- October 1991 - GE constructs wastewater treatment facilities to improve the quality of the groundwater and stormwater at the GE facility before its discharge to the Housatonic River.
- 1991 to 1994 - EPA and the MDEP negotiate a Memorandum of Understanding to coordinate regulatory activities and oversight of cleanup work. The MOU is signed in 1994.
- 1992 to 1999 - Under the Massachusetts Contingency Plan, GE samples and evaluates potential imminent hazards on 69 recreational and residential properties in six communities along the Housatonic River's 10-year floodplain. Short-Term Measures are implemented on 19 properties. The measures include removal of PCB-contaminated surficial soils, posting of warning signs, and planting of vegetative barriers to restrict access to wooded areas.
- March 24, 1993 - Public meeting is held by representatives of MDEP, EPA, and GE at the Lenox Town Hall to discuss the status of remedial investigations of the Housatonic River Site.
- March 24, 1993 - Informational meeting is held by MDEP at the Berkshire Athenaeum (Pittsfield) to address concerns and answer questions from property owners who have recently had their floodplain properties tested by GE for PCB contamination.
- April 7, 1993 - Representatives of MDEP hold an informational meeting with owners of affected residential floodplain properties.
- April 14, 1993 - Representatives of EPA and MDEP hold a public meeting at the Berkshire Athenaeum to provide an update on the status of remedial investigations at the GE Pittsfield and Housatonic River sites to explain differences between MDEP's and EPA's regulatory authority (i.e., the Massachusetts Contingency Plan and the RCRA Corrective Action Permit, respectively) and to gather input regarding proposed modifications to the existing Public Involvement Plan.
- July 15, 1993 - Representatives of MDEP and EPA conduct a public meeting at Berkshire Community College to discuss the status of sampling and short-term measures at the floodplain residential properties in Pittsfield and Lenox.

## PROJECT CHRONOLOGY

- July 29, 1993 - Representatives of MDEP and EPA meet with Housatonic River Initiative (HRI) members in Lenox to discuss the status of remediation at the GE/Pittsfield and Housatonic River sites and to introduce new project managers at EPA and MDEP.
- September 23, 1993 - A public meeting is held in Lee, MA, with representatives of MDEP and EPA to discuss PCB toxicity and associated health risks and initiate the environmental health assessment process.
- October 12, 1993 - Representatives of MDEP and EPA hold a public meeting at the Reid Middle School in Pittsfield to discuss the proposed RCRA Corrective Action Permit.
- 1994 - GE invokes dispute resolution proceedings under the MDEP Administrative Consent Order disputing MDEP's requirements for Short-Term Measures on the residential floodplain properties.
- 1994 - EPA RCRA Corrective Action permit becomes final.
- 1994 - The Massachusetts Department of Public Health (MDPH) initiates studies on exposure to and health effects of PCBs on residents of Berkshire County.
- January 13, 1994 - MDPH presents a health forum at the Berkshire Medical Center. The focus of the forum is the subject of breast cancer in women as related to PCB exposure.
- April 26, 1994 - Meeting held at Reid Middle School to present MDEP's Draft Revised Public Involvement Plan and to provide an update on remedial actions at the GE/Pittsfield and Housatonic River sites.
- April 30, 1994 - MDEP and EPA participate in two public involvement activities concerning the GE/Pittsfield and Housatonic River sites. The first activity is the "Great River Mapping Project," which is sponsored by HRI and attended by schoolchildren and county residents. Participants use a large map of the river as a canvas for portraying their dreams for future use of the river. The second activity is a GE Open House. Tours are conducted of the wastewater treatment plant, the groundwater treatment plant, and the thermal oxidizer.
- May 4, 1994 - Representatives of MDEP and EPA hold a meeting with the Pittsfield City Council to present status updates of the GE/Pittsfield and Housatonic River sites, including the Draft Revised Public Involvement Plan.

## PROJECT CHRONOLOGY

- June 16, 1994 – MDEP, EPA, and GE hold a public meeting in Springfield to present to the public a proposal for the Preliminary Investigation of Corrective Measures which outlines a variety of remedial strategies under consideration for cleanup of the river.
- July 8, 1994 - HRI sponsors a meeting and canoe trip on Woods Pond. Senator John Kerry and representatives of MDEP, EPA, and the National Oceanic and Atmospheric Administration (NOAA) participate.
- August 4, 1994 - HRI sponsors an educational forum for local officials from the towns that border the Housatonic River. This meeting is held to inform local officials about the cleanup process and to enable them to ask questions concerning the remediation process. Representatives of MDEP and EPA participate.
- 1994 through 1995 - Formation of state and federal interagency workgroup to coordinate remediation and restoration and Natural Resource Damages (NRD) issues and concerns.
- 1994 through 1997 - EPA and MDEP provide HRI with monthly written status reports concerning remedial investigations and activities at the GE/Pittsfield and Housatonic River sites.
- 1994 to 1997 - Agencies participate in numerous workshops, public meetings, and forums to update citizens, property owners, officials and environmental groups and to engage public discussions of assessment work, remedial alternatives, and treatment/disposal options for facility, river sediments, and floodplain soils.
- May 1994 to Present - MDEP awards Technical Assistance Grant and other account funds to HRI. These funds are used by HRI for technical outreach and education projects, including publishing newsletters and sponsoring educational forums, and working with local citizens to disseminate information about the cleanup process and risks associated with the sites. The technical assistance funding is used to hire a technical consultant to review reports, attend technical meetings, monitor the remediation process, and provide and coordinate review comments on technical site-related reports.
- 1994 to Present - Several meetings are held with the Pittsfield City Council, HRI, and the Tri-Town Board of Health.
- April 13, 1995 – EPA, MDEP, and GE hold an informal poster and question and answer session at the Lenox Town Hall to present data collected to date for the Housatonic River Site (including GE split samples) and to present GE’s revised Proposal on the Preliminary Investigation of Corrective Measures for the Housatonic River. Status

## PROJECT CHRONOLOGY

updates for the remaining sites are presented in the form of written summaries.

- 1995 to 1996 - Attempt to engage GE in “global” negotiations fails.
- 1995 to 1996 - HRI, MDEP, and EPA hold several PCB global focus group meetings. The purposes of these meetings are to discuss strategies for expediting certain PCB remediation projects for the GE Pittsfield and Housatonic River sites, to foster cooperation between the agencies and GE, and to solicit public input and commitment in achieving long-range solutions to the problems associated with the sites.
- December 1995 to July 1996 - The thermal oxidizer is closed.
- 1996 - Discovery of high levels of PCB soil contamination in Deming Street neighborhood at site of former impoundment; residential backyards and riverbank removal work is undertaken.
- January 1996 - Attorney General holds public meeting in Pittsfield to hear community concerns regarding the site. MDEP and EPA participate in the panel.
- March 1996 - During the investigation of the East Street Area 2 site at the GE facility, discovery of a “hot spot” of PCB contamination in Housatonic riverbank soils and sediments adjacent to Building 68. MDEP/EPA order GE to remove PCB-contaminated sediments and bank soils.
- June 11, 1996 - Representatives of EPA and MDEP meet with HRI representatives.
- June 16, 1996 - A public meeting is held at the Northeast Utilities headquarters in Pittsfield by GE, EPA, and MDEP to present GE’s revised Proposal on the Preliminary Investigation of Corrective Measures for the Housatonic River.
- December 18, 1996 - EPA and MDEP order GE to clean up contaminated riverbank soils and sediments adjacent to Building 68. EPA issues a CERCLA order to regulate the work.
- 1997 - EPA proposes listing the GE facility/Housatonic River on the National Priorities List (NPL) under CERCLA (Superfund).
- 1997 - Discovery of contaminated fill on non-floodplain residential properties, city playground, and other properties in several areas of Pittsfield; other properties identified in Pittsfield and other Berkshire

## PROJECT CHRONOLOGY

towns (Richmond, Cheshire) as suspected of receiving fill from GE are under investigation.

- March 27, 1997 - MDEP Housatonic Watershed Outreach Meeting held in Pittsfield City Council chambers.
- April 2, 1997 - MDEP Housatonic Watershed Outreach Meeting held in Great Barrington.
- April 2, 1997 - EPA and MDEP representatives are panel participants at the HRI's Community Meeting held at the Berkshire Athenaeum. MDEP and EPA provide updates on current issues. Meeting includes Tufts University Computer Simulation, EcoLogic presentation on various technologies for PCB remediation.
- May 7, 1997 - Representatives of MDEP, EPA, and GE hold a public meeting at the Northeast Utilities headquarters in Pittsfield to present updates on the Pittsfield Brownfields Pilot Project (a project to facilitate the cleanup and reuse of the GE facility), remediation activities at Building 68, computer mapping of contamination in the Housatonic River, and status updates on remedial investigations at the GE Pittsfield sites. The purpose of the meeting was also to discuss citizens' concerns over PCB-contaminated fill at residential properties in Pittsfield. MDEP announces a toll free number '1-888-VIOLATE' that citizens can call to provide information to MDEP about potential PCB fill properties.
- June 17, 1997 - A public meeting held by MDEP, EPA, and GE at the Pittsfield City Council chambers to discuss residential fill issues.
- June 1997 to July 1999 - Building 68 removal action is performed under CERCLA Order. Approximately 5,000 cubic yards (yd<sup>3</sup>) of PCB-contaminated sediments and 2,330 yd<sup>3</sup> of PCB-contaminated bank soils are removed. The river channel is armored and restored and the riverbanks are revegetated and stabilized.
- July to August 1997 - EPA conducts community interviews in the Pittsfield area.
- July 1997 - EPA Regional Administrator and MDEP Commissioner meet with constituent groups about PCB contamination at the site. The constituent groups include environmental leaders, community activists, and business leaders.
- August 1997 - EPA Regional Administrator issues a press statement announcing that EPA will start the process for including the site on EPA's NPL and will also start negotiating with GE.

## PROJECT CHRONOLOGY

- August 7, 1997 – EPA, MDEP, and GE hold a public meeting at the City Council Chambers to discuss issues related to properties contaminated by PCBs in fill material received from GE (“residential fill” properties).
- August 7, 1997 – EPA and MDEP publish two fact sheets – one about PCBs and one about questions and answers on residential fill issues.
- August 1997 - MDEP establishes a toll-free telephone hotline for the public to relay information about GE-related fill material to the agencies.
- Fall 1997 - EPA opens a satellite office in Pittsfield and begins Wednesday morning office hours to address the public’s concerns regarding contaminated residential fill. The weekly office hours continue through 1998.
- October 1997 – EPA, MDEP, and GE agree to renew discussions toward overall settlement of remediation, restoration, and redevelopment issues with the assistance of mediator.
- October 1997 - EPA issues a letter and fact sheet from EPA’s Regional Administrator and MDEP Commissioner to residents of Pittsfield regarding the PCB issues.
- October 23, 1997 - The League of Women Voters sponsors a panel discussion related to the toxicological and health effects associated with exposure to PCBs. The meeting is held in Lee, and various health experts participate, including those from DPH and MDEP.
- December 8 and 9, 1997 – Focus Group Meetings are held in Pittsfield, MA, with groups of residents affected by the GE Pittsfield site. The purposes of the Focus Groups are to gather information from residents about their concerns, needs, expectations, and perceptions of EPA; to learn the measures for evaluating EPA’s success in communications and outreach; and to obtain feedback on the written questionnaire currently being tested.
- Winter 1997/1998 - EPA conducts telephone surveys with local residents.
- 1997 through 2001 – GE samples 315 residential properties in Pittsfield for PCB contamination. PCB-contaminated fill is removed from 164 residential properties.
  - Prior to the commencement of remediation activities, MDEP and EPA provide fact sheets describing the proposed remedial activities to most of the affected neighborhoods. Fact sheets are

## PROJECT CHRONOLOGY

distributed by door-to-door hand delivery and by mail. (August 1997)

- MDEP provides to public interest groups geographic information system (GIS)-generated maps that indicate the locations of the properties that have been sampled.
  - Upon request, MDEP provides public interest groups with updated status lists for residential fill properties that have been sampled and/or remediated to date.
  - In fall 1997, representatives of MDEP and EPA begin holding office hours 1 day per week for residents dealing with the contaminated fill issue. These office hours are established to enable the public easy access to MDEP's and EPA's representatives regarding residential fill-related issues. The office hours continue through mid-October 1998.
  - 1997 to Present - Meetings among GE, property owners of the affected residential fill properties, and MDEP are held. Owners of properties designated for sampling are interviewed and premobilization discussions take place prior to remediation. In addition, MDEP's representatives oversee the cleanup activities on all affected parcels by making visits to each site two or three times per week.
- January 1998 - The EPA Regional Administrator meets with Connecticut environmental and river recreational groups to discuss the proposed NPL listing of the site.
  - January 1998 - EPA and MDEP staff meet with representatives of South Berkshire County communities to discuss the proposed NPL listing of the site.
  - January 1998 - EPA and MDEP conduct a public meeting to discuss the residential fill property issue, and to provide information and a general update on GE/PCB-contaminated sites in the Pittsfield area.
  - February 5, 1998 - The MA Attorney General's Office sponsors a public health workshop at MDEP's regional headquarters in Springfield. The purpose of the workshop is to review past major health studies which are connected with the GE Pittsfield and Housatonic River sites and to discuss the types of additional studies or information that would be useful to address Berkshire County residents' health concerns. Experts in the public health field, members of HRI, homeowners of affected residential properties, and representatives of the MDPH, EPA, and MDEP participate.

## PROJECT CHRONOLOGY

- March 1998 - EPA and MDEP issue an *Environmental Update* for the Berkshires which updates the community on cleanup activities and highlights the process for residential property cleanups.
- March 2, 1998 - EPA and MDEP hold a public meeting at the Pittsfield High School auditorium to provide an update on activities at all the GE/Pittsfield and Housatonic River sites while focusing on investigation and cleanup activities at the residential fill properties.
- March 1998 - The EPA Regional Administrator conducts a series of community meetings with Pittsfield groups to discuss issues related to the site.
- April 6, 1998 - EPA releases "An Action Agenda for Environmental and Economic Recovery in Pittsfield and Berkshire County." The Action Agenda announces EPA's plans for remediation of contamination, restoration of natural resources, and redevelopment of property. In conjunction with releasing the Action Agenda, the EPA Regional Administrator and the MDEP Commissioner conduct community meetings regarding the Action Agenda.
- April 21, 1998 - EPA conducts interviews with residents in neighborhoods where PCB contamination has been found.
- April 29, 1998 - EPA and GE hold a public meeting at Pittsfield High School to discuss GE's request for a modification to the RCRA Corrective Action Permit. The proposed permit modification will allow inclusion within the permit's scope of certain areas near the facility (such as the Allendale School property and certain former oxbows) that were not previously covered under the permit.
- June 3, 1998 - EPA announces Enforcement Order and other steps for PCB cleanup of Housatonic River in Pittsfield; reissues invitation to resume negotiations.
- June 1998 - The EPA Regional Administrator conducts a town meeting to discuss the cleanup of PCBs in Berkshire County.
- June 1998 - The EPA Regional Administrator and the MDEP Commissioner conduct additional community meetings regarding the "Action Agenda for Environmental and Economic Recovery of Pittsfield and Berkshire County."
- June 1998 - EPA issues a letter from the Regional Administrator and an accompanying fact sheet to Pittsfield residents along the Housatonic River on the health risks associated with exposure to PCBs in Housatonic River sediments.



## PROJECT CHRONOLOGY

- July 1998 - EPA, MDEP, GE and the other government agencies involved in the government/GE negotiations host a community session to receive input on the issues being negotiated by GE and the governing bodies.
- August 1998 - EPA begins second round of residential sampling in Pittsfield.
- September 24, 1998 - The EPA Administrator issues statement concerning EPA/GE negotiations.
- September 24, 1998 - After a year of mediated negotiations, an Agreement in Principle is signed among GE, EPA, MDEP, Connecticut Department of Environmental Protection (CTDEP), MA Office of the Attorney General, CT Office of the Attorney General, U.S. Department of Justice (U.S. DOJ), NOAA, U.S. Department of the Interior (U.S. DOI), MA Executive Office of Environmental Affairs, and the City of Pittsfield. The Agreement in Principle formalized the decisions reached during negotiations and established the framework for the Consent Decree.
- October 7, 1998 - EPA releases to the public a Summary of the Agreement (Agreement in Principle) relating to preliminary agreements among the parties, which provides details on Cleanup of Specific Areas, Brownfields Redevelopment and Economic Aid, Restoration of Natural Resources, Recovery of Government Costs, Effect and Form of the Consent Decree, and Enhanced Public Participation.
- October 21, 1998 - The Natural Resource Damage (NRD) Trustees hold a public meeting in Lee, MA, to present an overview of the natural resource damage assessment and restoration process. Representatives of EPA and MDEP attend.
- October 1998 - EPA and MDEP staff meet with community groups to explain the Agreement in Principle regarding remediation, restoration, and redevelopment between the governments and GE for the site.
- November 4, 1998 - EPA and MDEP initiate the Citizens Coordinating Council (CCC) to provide a focus for the community to receive information and provide feedback to the agencies and GE on the various cleanup and restoration activities at the site. The CCC is comprised of over 30 environmental, business, and community leaders, representatives of the regulatory agencies, local municipalities, and GE. The CCC meetings are open to the public. The CCC has met monthly since November 1998 on a range of different cleanup and site-related issues.

## PROJECT CHRONOLOGY

- November 1998 - Representatives of EPA and MDEP meet with interested parties from southern Berkshire County at the Stockbridge Town Hall to obtain input on proposed locations for sampling floodplain soils and river sediments for the portion of the river south of Woods Pond.
- November 1998 - EPA staff meets with environmental groups from New York State to explain the Agreement in Principle for the site.
- December 1998 - EPA and MDEP staff meet with selectmen from southern Berkshire County towns to explain the Agreement in Principle.
- December 2, 1998 - A CCC meeting is held to present and discuss GE's Conceptual Work Plan for the Upper Reach of the Housatonic River (½-Mile) and GE's Source Control Work Plan for the Upper Reach of the Housatonic River (½-Mile).
- December 3, 1998 - Representatives of EPA and MDEP hold a meeting at the Lenox Town Hall to brief southern Berkshire County officials on the specifics of the Agreement in Principle that was signed in September 1998 by the federal and state agencies, the City of Pittsfield, and GE.
- 1998 through 1999 - MDEP and EPA participate in several informational meetings with members of public interest groups such as Citizens for PCB Removal and Get REAL. Representatives of MDEP and EPA also participate in informal neighborhood meetings with residents of impacted areas.
- 1998 through 1999 - EPA conducts extensive studies south of the Confluence of the East and West Branches of the Housatonic River. The studies consist of sampling sediments and bank and floodplain soils, biological and ecological investigations, and modeling to provide data for human health and ecological risk assessments and to predict rates of river recovery under different cleanup scenarios.
- 1998 through 2000 - EPA undertakes an Engineering Evaluation/Cost Analysis (EE/CA) to evaluate remedial alternatives for cleanup of the 1 ½-mile stretch of the Housatonic River from Lyman Street Bridge to the Confluence of the East and West Branches.
- January 1999 - MDEP and EPA issue a "reach-out" letter to residential property owners who had requested sampling, but for which no credible information presently exists relative to GE-related fill. The letter advises the public that efforts are continuing toward evaluating new data and information in regard to their requests for sampling.

## PROJECT CHRONOLOGY

- January 6, 1999 - A CCC meeting is held to present and discuss the Restoration Planning Process for the Housatonic River. A presentation is given by the Natural Resource Damage (NRD) Trustees. An update on drum removal activities at the Pittsfield Landfill is also provided.
- January 21, 1999 - MDPH holds a public meeting to announce the composition of and mission statement for an expert panel that has been convened to study health effects related to exposure to PCBs. The public meeting is held to obtain input from Berkshire County residents on their health concerns related to contamination at the GE/ Pittsfield and the Housatonic River sites. Representatives of MDEP and EPA attend.
- February 3, 1999 - A CCC meeting is held to present and discuss the Removal Action Work Plan for the Upper ½-Mile Reach of the Housatonic River. GE's consultants make the presentation and respond to questions and comments.
- February 11, 1999 - A special CCC meeting is held to further discuss the Removal Action Work Plan for the Upper ½-Mile Reach and other aspects of the Agreement in Principle, including the on-site consolidation areas. EPA brings in an outside technical expert from USACE to respond to questions from CCC members concerning the use of a cap in the river.
- February 1999 - GE receives feedback from the CCC on its draft Work Plan for remediation of the Upper ½-Mile Reach of the Housatonic River, which has been submitted to the CCC members for review.
- March 1999 to Present - Additional source control measures are implemented at East Street Area II, Newell Street Parking Lot, and Lyman Street Parking Lot sites. Measures include adding borings to determine the extent of LNAPL and DNAPL plumes, installing wells to evaluate the efficacy of the source control measures and to recover oil, and installing Waterloo sheetpiling to prevent oil plumes from reaching the Housatonic River.
- March 3, 1999 - A CCC meeting is held to present and discuss the Supplemental Investigation Work Plan for the Lower Housatonic River. EPA presents information on ecological characterization, the human health risk assessment, the ecological risk assessment, the hydrodynamic modeling, and the peer review process.
- May 1999 - EPA announces a public comment period from May 5, 1999, to June 4, 1999, on a proposal for implementation of cleanup work, which GE agreed to implement prior to Consent Decree entry, at the Allendale School, the Upper ½-Mile Reach of the Housatonic

## PROJECT CHRONOLOGY

River, and the On-Plant Consolidation Areas. GE's work plans for these activities are made available to the public for comment. EPA responds to public comments received during the comment period in an October 1999 Responsiveness Summary.

- May 12, 1999 - A CCC meeting is held to present and discuss the proposal for implementation of work at the Allendale School and the Upper ½-Mile Reach of the Housatonic River in Pittsfield, MA. This proposal would allow some time-critical work to take place before the Consent Decree is actually lodged. The Consent Decree lodging and entry process are also explained. The CCC meeting also serves as a public meeting on the proposal and the meeting is advertised appropriately and public participation by non-CCC members is encouraged.
- May 17, 1999 - Public meeting is held to discuss work to be conducted during summer - pre-Consent Decree, ½-Mile Reach, Allendale School, and Consolidation Areas.
- June 2, 1999 - A CCC meeting is held to solicit the group's input on future agenda items and evaluate the CCC process.
- June 17, 1999 - MDEP hosts Residential Fill Properties Investigation and Cleanup project public meeting at the Pittsfield City Hall.
- June 23, 1999 - MDEP and EPA participate in a community meeting to discuss the proposed removal action for the Allendale School. The meeting is hosted by the Allendale School Council at the school.
- August 4, 1999 - A CCC meeting is held to present and discuss updates on the work at the Allendale School, preparation of the consolidation areas, work in the ½-Mile Reach, economic development plans for portions of the GE site, and cleanup on the residential fill properties.
- August 1999 - EPA mails to the public an update on the ongoing cleanup of the Allendale School.
- August 1999 - EPA's sampling shows highly elevated concentrations of PCBs in duck breast and liver tissue. The MA Department of Public Health issues a public health advisory for consumption of mallards and wood ducks in the Housatonic River from Pittsfield to Great Barrington (Rising Pond).
- Summer 1999 - Allendale School property cap and 41,000 cubic yards of contaminated subsurface soils removed. Playground facilities are restored and enhanced in the fall 1999.

## PROJECT CHRONOLOGY

- October 6, 1999 - A CCC meeting is held to present and discuss the following: a health forum being put on by one of the active citizens groups (Get REAL) with funding in part by MDEP; site updates for ongoing work at the on-site consolidation areas, Allendale School, ½-Mile Reach, and Newell Street Parking Lot; the Consent Decree, the settlement between the MA Attorney General's Office and GE; the excavation of a portion of one of the Newell Street commercial properties by the owner; and the status of testing for contamination in Pittsfield parks.
- October 7, 1999 - A Consent Decree among GE, U.S. EPA, U.S. DOJ, U.S. DOI and NOAA, the Commonwealth of Massachusetts, the State of Connecticut, the City of Pittsfield, and the Pittsfield Economic Development Authority is signed and lodged in District Court. The Consent Decree regulates the investigation and cleanup of the Housatonic River and other GE Pittsfield sites, provides a compensation package for natural resource damages, and provides a brownfields redevelopment project for portions of the GE facility.
- October 8, 1999 - EPA and GE finalize details of cleanup agreement.
- October 26, 1999 - A CCC meeting is held to present and discuss the following: the Consent Decree and Scope of Work overview, a Natural Resource Overview, and the Commonwealth of Massachusetts' issues concerning the Settlement of the Information Case and Administrative Consent Order (i.e., covenant not to sue, contribution protection). EPA, U.S. DOJ, NOAA, MDEP, and the MA Attorney General's Office attend this CCC meeting to explain the proposed Consent Decree.
- October 26, 1999 - Notice of the proposed settlement is published in the Federal Register, and the United States initiates a public comment period on the settlement and the reissued draft RCRA Permit. Public meetings are scheduled. The comment period is extended twice and closes on February 23, 2000.
- October 28, 1999 - Public comment period for GE/Housatonic River Consent Decree begins; public meetings are scheduled.
- October 30, 1999 - Representatives of EPA and MDEP participate in a forum entitled "Health Risks Associated with PCB Exposures." A panel of PCB experts from across the country give presentations on their research and answer questions.
- October 1999 through Present - PCB-contaminated sediments and soils are removed from the riverbanks and channel of the ½-Mile Reach from the Newell Street Bridge to the Lyman Street Bridge on the Housatonic River. The channel floor and lower portions of the

## PROJECT CHRONOLOGY

banks are capped and armored; upper banks will be revegetated. Habitat enhancements will be provided.

- November 3, 1999 – The Natural Resource Trustees present to the environmental community an overview of the natural resources restoration components of the Consent Decree. This meeting is held at the MDEP Watershed Team Office at the Conte Federal Building in Pittsfield and is attended by representatives of EPA and MDEP.
- November 3-4, 1999 - EPA and MDEP staff hold a 2-day office hours session, and meet informally with numerous individuals or groups to explain the proposed settlement.
- November 4, 1999 – An evening forum, sponsored by Get REAL, is held at the Berkshire Medical Center. The forum, entitled “An Update on PCBs in Pittsfield” includes representatives from the University of Massachusetts School of Nursing who present a review of current research on the health effects of PCBs. Representatives from MDEP, EPA, and DPH present updates on the residential fill properties, the GE plant site, and DPH’s public health activities, respectively.
- November 17, 1999 - A CCC meeting is held to present and discuss how to address residential fill removal issues, to schedule upcoming CCC work resulting from the Consent Decree, and to discuss committee formation by CCC members.
- November 1999 to January 2000 - EPA holds formal public meetings regarding the Consent Decree in Pittsfield, MA; Stockbridge, MA; and Kent, CT. At these meetings, EPA explains the provisions of the Consent Decree, answers questions, and receives additional comments from the public.
- December 2, 1999 - EPA holds a public hearing on the proposed Consent Decree and the proposed reissued RCRA Permit.
- December 9, 1999 - The Natural Resource Damage Trustees hold a meeting in the Stockbridge Town Hall with representatives of the environmental community from Southern Berkshire County.
- 1999 to 2000 - EPA enhances public participation in relation to the Consent Decree by using many additional mechanisms, including the following:
  - Mails a summary of the Consent Decree to the active EPA mailing list for the site.

## PROJECT CHRONOLOGY

- Places the Consent Decree and Statement of Work for the Removal Actions Outside the River (“Statement of Work”), as well as the Summary of the Consent Decree, on the EPA web site devoted to the site.
- Places the Consent Decree and all appendices in four repositories in Berkshire County, as well as with the Berkshire County Chamber of Commerce, the Housatonic River Initiative office, the Housatonic Valley Association office in Connecticut, and upon later request, at three additional public repositories in Connecticut.
- Provides to requesters individual paper copies of the Consent Decree, or paper or CD/ROM copies of the Statement of Work.
- January 20, 2000 - Hosts a Lenders Forum for property owners who would be affected by the work at the GE facility and Housatonic River sites.
- In addition to these more formal mechanisms, through the last several years, EPA and MDEP staff have been available to meet with the community informally at virtually any time.
- January 5, 2000 - A CCC meeting is held to present and discuss a natural resource damage restoration update, an update on the investigation of the West Branch of the Housatonic River, an update on CCC work related to the Consent Decree schedule, and the results of the Residential Fill Ad Hoc Committee’s meetings.
- January 18, 2000 - Comment period for GE/Housatonic River Consent Decree is extended a second time to February 23, 2000.
- January 18, 2000 – EPA hosts commercial lending forum for the GE Pittsfield/Housatonic River site. The forum is held at the Crown Plaza Hotel in Pittsfield to allow property owners to hear lenders’ views on the effects of the proposed Consent Decree on lending. The property owners attending are those who would be affected by the work at the GE facility and Housatonic River sites.
- February 2, 2000 - A CCC meeting is held to present and discuss updates on the following: ½-Mile Reach; work by the Natural Resource Damage Trustees; demolition work at the GE facility areas known as the 20s, 30s, and 40s complexes; the status of ongoing studies by the MDPH; a report by the Housatonic River Restoration Group (composed of some members of the CCC); and an update from the Residential Fill Ad Hoc Committee.

## PROJECT CHRONOLOGY

- March 1, 2000 - A CCC meeting is held to present and discuss the Engineering Evaluation and Cost Analysis (EE/CA) for the 1 ½-Mile Reach of the Housatonic River. Three independent technical experts answer the public's questions concerning the proposed work.
- April 12, 2000 - A CCC meeting is held to present updates on Consent Decree motions to intervene; demolition activities in the 20s, 30s, and 40s complexes; residential fill property remediation and results of Ad Hoc committee meetings; ½-Mile Reach DNAPL issues; the West Branch sampling proposal; MDPH activities; and Natural Resource Damages.
- May 3, 2000 - A CCC meeting is held to provide updates on the issues covered at the April 12 meeting and also to discuss methods to make the CCC more effective in providing input into the remediation planning process.
- May 23, 2000 - EPA and MDEP host informal meetings with property owners along the Upper 1 ½-Mile Reach of the Housatonic River whose properties will be affected by work under the EE/CA.
- June 7, 2000 - A CCC meeting is held in Stockbridge, MA, to facilitate participation of groups from Connecticut. EPA offers an update on "Rest of River" investigations, human health and ecological risk assessments, and hydrodynamic modeling. Connecticut DEP officials give updates on sediment and biota sampling efforts occurring in Connecticut. Natural Resource Damage updates and GE site remediation updates are also provided.
- June 7 and 8, 2000 - EPA and MDEP host informal meetings with property owners along the Upper 1 ½-Mile Reach of the Housatonic River whose properties will be affected by work under the EE/CA.
- July 20, 2000 - EPA, MDEP, and GE take the CCC on a tour of the GE site in lieu of a monthly meeting. The tour includes Building 19, the Hill 78 and Building 71 On-Plant Consolidation Areas, and the ½-Mile Removal Action Area.
- July 25, 2000 - EPA and MDEP hold public informational meeting at the Berkshire Athenaeum Public Library Auditorium. The purposes of the meeting are to summarize the results of the EE/CA, to update the community on the investigation progress, and to answer questions about the investigations and findings.
- August 18, 2000 - CCC receives updates on EPA, MDEP, and GE activities and a presentation on the newly designed EPA Web site for the GE project. CCC members decide to not meet again until October.



## PROJECT CHRONOLOGY

- August 9, 2000– EPA and MDEP hold public information meeting in Kent, CT, on the EE/CA.
- August 15, 2000 – EPA holds a public hearing to accept verbal comments on the preferred alternative as presented in the EPA fact sheet on the EE/CA.
- October 4, 2000 – Presentation to the CCC on the Consent Decree.
- October 2000 – EPA announces proposed modeling framework for assessing Housatonic River cleanup.
- October 27, 2000 – Federal Judge gives final court approval to the Consent Decree that presents the cleanup plan for the Housatonic River and other GE Pittsfield sites.
- November 1, 2000 – EPA announced its policy regarding homeowners with contaminated property, providing to those homeowners the opportunity to obtain a letter of clarification from EPA that EPA is not pursuing them for liability at the Site.
- November 2000 – Revised Administrative Consent Order (ACO) executed by MDEP and consented to by GE on November 13, 2000. Revised ACO supersedes two 1990 ACOs between MDEP and GE and provides for continued assessment of remediation of off-site properties contaminated with fill from the GE Pittsfield facility (including East Street Area 1-South) and includes a streamlined process for the residential fill properties.
- November 21, 2000 – GE - Pittsfield CCC Connecticut Subcommittee Meeting – The first organizational meeting of the GE - Pittsfield CCC Connecticut (CT) Subcommittee. Meeting discussion included the purpose of this initial meeting, background on the CCC, the establishment of the CT Subcommittee, and a brief introduction to the cleanup issues and the Consent Decree. As a result of input from Connecticut representatives on the CCC, CCC decided to explore the formation of a CT Subcommittee that would meet in Connecticut. The purpose of the subcommittee is to improve Connecticut stakeholders' ability to learn and comment on the cleanup of the Housatonic River and related areas covered by the Consent Decree. EPA, CT DEP, and the CT NRD trustee made presentations to the group and answered questions. The group also discussed the CT Subcommittee mission and procedures and decided that the subcommittee would meet on a quarterly basis.
- November 27, 2000 – EPA issued its Action Memorandum for cleanup of the 1 ½-Mile Reach of the river. The cleanup outlined in the Action Memorandum includes removal from the river and off-site disposal of

## PROJECT CHRONOLOGY

approximately 90,000 cubic yards of contaminated sediments and bank soils.

- January 5, 2001 – GE-Housatonic River CCC Meeting – Updates by GE, MDEP, the NRD representative, and EPA. In addition, a presentation was made on the first meeting of the CT Subcommittee. As a result of the subcommittee meeting in Connecticut, the group reached a consensus that the name of the CCC should change to “GE-Housatonic River CCC” without the word “Pittsfield” in the name any longer.
- February 7, 2001 – GE-Housatonic River CCC Meeting – Updates presented by GE, MDEP, the NRD representative, and EPA. Updates included work in the river and the commercial properties and residential cleanup program. EPA announced a 2-week extension of the comment period for Connecticut residents to comment on the Biota Consumption Advisories on the River. There was a discussion whether the West Branch and entire watershed should be posted with consumption warnings. MDEP updated the group on activities at the King Street Dump, in the West Branch of the river, and sediment sampling in Goodrich Pond.
- March 26, 2001 – GE-Housatonic River CCC CT Subcommittee Meeting – EPA presentation on the preliminary evaluation of a wide spectrum of data gathered from the Rest of River Reach and a status report on the ecological characterization of the Connecticut Housatonic River Valley to map habitats, to identify animal use, and to develop baseline conditions that describe the ecological setting. A discussion about production and posting of fish consumption signs on the Connecticut portion of the Housatonic River ensued.
- April 4, 2001 – GE-Housatonic River CCC Meeting – EPA presentation to the group on the Human Health Risk Assessment Process with a discussion following. Updates on site activities by GE, EPA, MDEP, and the NRD representative and an update on the March 26, 2001 Connecticut Subcommittee meeting.
- April 25-26, 2001 – EPA holds public peer review session regarding the Modeling Framework document for the Rest of River. In the peer review, a panel of independent experts reviewed EPA’s proposed framework for modeling the fate, transport, and bioaccumulation of PCBs in the Rest of River.
- May 2, 2001 – GE-Housatonic River CCC Meeting – Updates by GE, EPA, and the NRD trustee. The Peer Review Meeting on the Modeling Framework Design document for the Rest of River was summarized and discussed.

**PROJECT CHRONOLOGY**

- June 6, 2001 – GE-Housatonic River CCC Meeting – In lieu of a regular meeting, the CCC was given a tour of the GE site. Brief updates were made by EPA and MDEP, and a GE representative led the site visit, including a tour of work in the ½-Mile Reach of the river, the water treatment plant, and the Hill 78 Consolidation Area.
- June 25, 2001 – GE-Housatonic River CCC CT Subcommittee Meeting – The “Purpose Statement and Operating Guidelines of the CT Subcommittee” were reviewed by the group. EPA updated the group on the analysis of data collected from the Rest of River, including the review of more than 30 reports previously produced by federal and state agencies representing data from the past 30 plus years. A discussion followed the presentation. Updates were presented by CT DEP and the NRD representative.
- July 24, 2001 – GE-Housatonic River CCC Meeting – EPA presentation on the “Ecological Risk Assessment for the Housatonic River: Initial Field Study Results.” The presentation included the role of the ecological risk assessment in the Rest of River project, EPA’s approach, the role of field studies in the assessment, the initial results from the field studies, next steps, and a schedule. A discussion on the Ecological Risk Assessment followed. Updates were made by GE, EPA, MDEP, NRD, and CT Subcommittee.