

US EPA ARCHIVE DOCUMENT

EPA Region I
Success Story
GE/Housatonic River Site

Background

The Housatonic River is located in a predominantly rural area of western Massachusetts, where farming was the main occupation from colonial settlement through the late 1800s. As with most rivers, the onset of the industrial revolution in the late 1800s brought manufacturing to the banks of the Housatonic River, in Pittsfield, MA. General Electric (GE) began its operations in its present location in 1903. Three manufacturing divisions have operated at the GE facility (Transformer, Ordnance, and Plastics).

The 254 acre GE plant in Pittsfield has historically been the major handler of PCBs in western Massachusetts, and is the only known source of polychlorinated biphenyls (PCBs) found in the Housatonic River sediments and floodplain soils in Massachusetts. Although GE performed many functions at the Pittsfield facility throughout the years, the activities of the Transformer Division, including the construction and repair of electrical transformers using dielectric fluids, some of which contained PCBs (primarily Aroclors 1254 and 1260), were one likely significant source of PCB contamination. According to GE's reports, from 1932 through 1977, releases of PCBs reached the waste and storm water systems associated with the facility and were subsequently conveyed to the East Branch of the Housatonic River and to Silver Lake.

During the 1940s, efforts to straighten the Pittsfield reach of the Housatonic River by the City of Pittsfield and the U.S. Army Corps of Engineers (USACE) resulted in 11 former oxbows being isolated from the river channel. The oxbows were filled with material that was later discovered to contain PCBs and other hazardous substances.

A fish consumption advisory for the Housatonic River was issued by the Massachusetts Department of Public Health (MADPH) in 1982 from Dalton, MA, to the Connecticut border as a result of the PCB contamination in the river sediments and fish tissue. It was later amended to include frogs and turtles. The State of Connecticut also posted a fish consumption advisory for most of the Connecticut section of the river in 1977. In addition, in 1999, MADPH issued a waterfowl consumption advisory from Pittsfield to Great Barrington due to PCB concentrations in wood ducks and mallards collected by the Environmental Protection Agency (EPA) from the river. Concerns expressed by local residents regarding possible health effects resulting from exposure to PCB contamination are being investigated by the MADPH.

While the two miles downstream from the facility have historically been channelized, the river's course is relatively unaffected (with the exception of the numerous dams downstream) in areas south of Pittsfield. The approximately 10 miles of river from the confluence of the East and West Branches of the Housatonic to Woods Pond in Lenox are bordered by extensive floodplain (up to 3,000 feet wide), range from 45 to 100 feet in width, have a meandering pattern with numerous oxbows and backwaters, terminating at Woods Pond, a shallow 56-acre impoundment formed by the construction of a dam in the early 1900s. The land use/ownership of the floodplain properties

include private and residential, agricultural, recreational (such as canoeing, fishing, and hunting), wildlife management areas and parks.

Previous Regulatory Framework

The GE Pittsfield/Housatonic River site has been subject to regulatory investigations dating back to the early 1980s. For several years, these investigations were consolidated under the following regulatory mechanisms: a Corrective Action Permit with EPA under the Hazardous and Solid Waste Amendments to the Resource Conservation and Recovery Act and two Administrative Consent Orders (ACOs) with the Massachusetts Department of Environmental Protection (MADEP).

In 1991, EPA issued a RCRA Corrective Action Permit to the GE-Pittsfield facility. Following an appeal and subsequent modification, the permit became effective in 1994. The permit included the 254-acre facility, some former filled oxbows, Silver Lake, the Housatonic River and its floodplains and adjacent wetlands, and all sediments contaminated by PCBs migrating from the GE facility. The federal and state government agencies and GE entered into negotiations in the mid 1990s in an attempt to reach a comprehensive settlement which included remediation, redevelopment, and restoration components. EPA proposed the Site to the Superfund National Priorities List in September of 1997 during the course of negotiations.

New Course of Action

In September 1998, representatives of the federal and state government agencies, GE, the City of Pittsfield, and the Pittsfield Economic Development Authority reached a tentative agreement in principle relating to GE's Pittsfield facility, other contaminated areas in Pittsfield, and the Housatonic River. The agreement provides for, among other things, the cleanup and economic redevelopment of the GE plant facility, cleanup and restoration of the former oxbows, cleanup and restoration of Silver Lake, cleanup of Allendale School, environmental restoration of the Housatonic River and floodplains, compensation for natural resource damages, and government recovery of past and future response costs. This agreement, which was finalized in October 2000, utilizes two new mechanisms: 1) a Consent Decree that addresses all areas except for the Housatonic River below two miles downstream from GE's Pittsfield facility and 2) a modified Corrective Action Permit to address the Housatonic River from the two mile point below the facility into Connecticut.

The October 2000 agreement will greatly expedite the pace of cleanup at the facility. To date over 10,000 cubic yards of contaminated sediments have been removed from the Housatonic River and more than 100,000 cubic yards of contaminated sediment and bank soils will have been removed over the next few years. This river and floodplain remediation will protect commercial, industrial, undeveloped and recreational in addition to approximately 40 residential properties.

Additionally, at and near the former plant site over 50 million gallons of groundwater has been removed and treated in addition to the recovery of almost 1 million gallons of oil contaminated

with PCBs. Expedited sampling and remediation activities and over \$50 million invested in redevelopment work (such as building demolition) will prepare the plant for reuse before the end of 2002.

Further information about the site, its history, the agreement, photographs and planned and completed work can be found at the Region I web site at www.epa.gov/region01/ge.