Housatonic River ½ Mile Removal

The Upper ½ Mile Reach Removal Action, which was completed in September 2002, addressed the contaminated riverbanks and sediments in the East Branch of the Housatonic River from the Newell Street Bridge to the Lyman Street Bridge. The comprehensive Consent Decree for Site cleanup required GE to perform this removal action, under EPA oversight, and to initiate construction activities in October 1999, shortly after lodging of the Consent Decree. (Appendix F to the Consent Decree is the EPA-approved Removal Action Work Plan for this reach of the River.)

Sediment and bank excavation was performed in the following manner. Sheetpile was driven in the middle of the river channel and the flow diverted to ½ of the river channel. Sections of the river were then dewatered and the "dry" sediment removed by conventional equipment (e.g., backhoes, cranes, etc.). Restoration of the riverbed included placement of a cap containing a silty sand sorptive layer, covered by an armored layer to return the riverbed to its existing elevation and as a substrate for restoration. Restoration included enhancing, where possible, instream and river bank habitat. During the excavation, non-aqueous phase liquid ("NAPL" or free product) was observed in sediment and in the river bank in several locations. At each of these locations, GE, under EPA oversight, removed the NAPL and NAPL-stained sediment down to a maximum depth of eleven feet, completed further bank soil excavation, and installed additional impermeable sheetpile walls to minimize the NAPL migration from the river bank. As a result of these actions, approximately 11,800 cubic yards of sediment and 6,400 cubic yards of bank soil were removed. The majority of the material was disposed of at the GE On-Plant Consolidation Areas at the GE facility, but sediment containing free product were disposed of at off-site facilities. The ½ Mile reach cleanup was completed in September 2002.

In addition to the Consent Decree cleanup, EPA had directed cleanup at one heavily-contaminated portion of the Upper ½ Mile Reach prior to the Consent Decree. In December 1996, EPA issued a Unilateral Administrative Order under the Superfund law to GE to remove highly contaminated sediment and bank soil in the area adjacent to GE's Building 68, which is on the banks of the River in the Upper ½ Mile Reach and was the location of a historic PCB spill. As a result, in 1997 and 1998 GE excavated and disposed of 5,000 cubic yards of heavily contaminated sediment (average PCB concentration of approximately 1,534 parts per million, or 'ppm') from a 550-foot section of the river and 2,230 cubic yards of heavily contaminated bank soil (average concentration of surficial soil of 720 ppm and average concentration of subsurface soil of 5,896 ppm) from a 170-foot stretch of the river bank. Sediment removal activities were performed "in the dry" by installing sheetpile into the river and diverting the flow of the river around the sheetpile, dewatering, and removing the sediment with standard excavating equipment.

GE is required to perform monitoring of the Upper ½ Mile Reach for a number of years. A summary of the monitoring requirements is found at the Post Removal Monitoring Activities Summary Table 1 (PDF) (1 p., 66 KB, about PDF).