

Fletchers Paint Works & Storage Site Milford

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From 1948 until 1991, Fletchers Paint Works manufactured oil-base and latex paints and stains, and engaged in other chemical processing activities. The Fletchers Paint Works site (site) has been divided into two Operable Units (OU-1 and OU-2). OU-1 consists of three areas: 1) the former Paint Works Plant on Elm Street, located about one-quarter mile west of the center of town along the southern bank of the Souhegan River; 2) a former storage facility on Mill Street, located about 700 feet south of the Paint Works Plant next to the Boston and Maine Railroad tracks; and, 3) a drainage ditch that runs from the Mill Street facility through the Paint Works and into the Souhegan River. OU-2 is comprised of the Keyes Memorial Field and the Souhegan River in the vicinity of the Elm Street area of the site.

Land-use next to the site includes a cemetery, a town park with a closed municipal well field, and mixed residential, commercial and light industrial establishments.

In 1984, contamination was discovered in the Keyes well, a municipal water supply for Milford in the northwest corner of Keyes Memorial Field. The well was subsequently taken out of service and an investigation began to determine the contaminant source. In 1985, the Environmental Protection Agency (EPA) discovered volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs) and heavy metals in the soils near the Paint Works Plant and in Souhegan River sediments. High levels of PCBs were also found in the soils around the paint storage building on Mill Street.

In 1988, EPA removed 863 drums from the site and shipped them to an authorized hazardous waste disposal facility. The site was listed on the National Priorities List in March of 1989. EPA's contractor began the remedial investigation in late 1991, and the report was completed in 1994.

In 1993, the wooden storage building at the Mill Street property was demolished and hundreds of drums and boxes were removed. A soil removal was completed in 1995 at three residential properties beside the Mill Street property due to PCB contamination detected in surface soils. An additional PCB-soil removal was completed in 1996 at the cemetery next to the Elm Street facility (site of the Korean War Memorial). On January 17, 2001, the Elm Street building demolition was completed and two nearby underground storage tanks were removed.

A feasibility study was completed for OU-1 in May 1996. EPA issued a proposed plan in January 1997 that called for ex-situ treatment of PCB-contaminated soils by thermal desorption. EPA signed a Record of Decision (ROD) outlining the selected remedy for the Mill Street property and the Elm Street property in October 1998. The ROD for OU-1 called for the soil to be excavated and thoroughly treated at the Elm Street property and

replaced in the ground; clean soil and asphalt placed over the soils at the Mill Street property; and the contaminated groundwater plume managed by monitored natural attenuation.

EPA issued a Unilateral Administrative Order (UAO) to the General Electric Company (GE) on July 16, 2001. The UAO directed GE to perform and implement a remedial design for the remedy described in the ROD.

GE conducted pre-design investigation activities in 2003 and 2004. GE completed the Pre-Design Investigation Report in January 2005.

The Intermediate (60%) Design Report described a Low-Temperature Thermal Desorption (LTTD) remedy and a parallel design effort of an Off-site Disposal (OSD) remedy for OU-1. EPA released a Proposed Plan in June 2008 to amend a portion of the OU-1 remedy that allows for the excavation of contaminated soils with off-site disposal at a licensed landfill. An Amended ROD was issued in June 2009 to address this change.

In September 2011 EPA approved with modification GE's 100% Design Report. In December 2011 GE's contractor submitted a work plan to complete additional field activities to address constructability issues, including hydraulic testing, pre-construction verification sampling and soil characterization for off-site treatment and disposal. These activities were initiated in 2012. The April 2013 Supplemental Design Data Report submitted by GE presented the results of the field work noted above in an effort to address some uncertainties associated with the final design. The field work identified an area of dense non aqueous phase liquid (DNAPL) in several wells and piezometers on the Mill Street Property. Further work related to the delineation and fate and transport of DNAPL was initiated. GE has been performing limited monitoring and recovery of DNAPL and is reporting these activities in monthly reports.

GE solicited bids for site remedial action in early 2015. Following agency approval of a remedial action work plan, the remedial action contractor (Maxymillian Technologies, Inc.) began site preparation activities in late summer 2015. Site preparation activities (utility relocation, staging area preparation, erosion control installation, sheeting and bracing installation, etc.) were the primary activities occurring during the 2015 construction season. Full-scale remedial activities (soil excavation and off-site disposal, water treatment, air monitoring, etc.) ensued and was largely completed in 2016. Approximately 44,000 tons of TSCA-regulated and 3,900 tons of non-TSCA materials were removed from the Mill Street and Elm Street areas and transported off site. Site restoration and demobilization activities are scheduled for completion by July 2017.

OU-2 is comprised of the Keyes Memorial Field and the Souhegan River in the vicinity of the Elm Street area of the site. Between 2004 and 2012, sediment and fish tissue sampling occurred in the Souhegan River to determine the status of the PCB contamination at OU-2. The data collected was used to complete a baseline human health and ecological risk assessment (BHHERA) in 2010. The BHHERA indicated that

there is elevated risk to human and ecological receptors from exposure to PCB's in Souhegan River sediments. A Remedial Investigation Report for OU-2 was completed in September 2011. In April 2016, EPA released an Engineering Evaluation/Cost Analysis (EE/CA) for implementation of a non-time critical removal action to address site-related PCB-contaminated sediments in the Souhegan River. The EE/CA identified the objectives and goals of a potential sediment removal action and presented an assessment of the effectiveness, implementability, and cost of several removal action alternatives. Subsequently, in July 2016, EPA developed a Statement of Work for OU-2 and executed an Administrative Settlement Agreement and Order on Consent for Removal Actions. GE then prepared and submitted a Remedial Design Report for the implementation of sediment removal and restoration activities, which was approved by the agencies on August 29, 2016.

The remedial excavation activities were performed between September 12 and 30, 2016. A temporary dam structure was deployed into the Souhegan River to divert river flow around the sediment removal area. Upon completion of the initial excavation activities, a post-excavation survey was performed to document that the excavations had been completed to the horizontal and vertical limits specified in the Remedial Design. Verification sampling was then performed in the completed excavations areas. Certain verification samples contained PCBs at concentrations requiring additional excavation. This process was continued until the verification sample data indicated that no further excavation was required.

The remedial activities resulted in the excavation of an estimated 1,600 tons (approximately 1,140 cubic yards) of non-TSCA regulated-materials and an estimated 400 tons (approximately 285 cubic yards) of TSCA-regulated materials. A total of 1,205,000 gallons of water generated during the performance of the OU-2 remediation activities was transported for treatment and discharge through the temporary water treatment system located at the Mill Street Area.

Upon determination that the limits of removal had been achieved, backfilling and restoration of the remediation areas was performed. The majority of the completed excavation areas were backfilled with an equal mixture of sand and gravel. Finally, a post-restoration survey was performed to document that the removal areas had been restored to pre-existing grades. Final restoration and demobilization of equipment and materials occurred between October 3 and 21, 2016. A Remedial Action Report, documenting all aspects of the remedy construction, was finalized on April 10, 2018 and is available on [EPA's web page](#).

The first [Five-Year Review \(FYR\)](#) for this Site was completed in February 2018, an EPA report that evaluates the protectiveness of the implemented remedy. Five-Year Reviews are required under the Federal Superfund Program upon design approval of the source control remedy at a site (2012 at the Fletcher Site) and are repeated every five years as long as future uses remain restricted.

The FYR for the Site found the remedy protective of human health and the environment in the short-term, but not the long-term. In order for the remedy to be protective in the long-term, all required institutional controls must be in place and the cleanup levels for OU1 groundwater must be achieved.

Previous fish tissue sampling results were reviewed as a component of the FYR and it was determined that fish consumption advisories for a one-mile segment of the Souhegan River upstream from the Goldman Dam needed to include signage along this segment of the River. Signs were posted in conjunction with a [press release](#) in 2018 that advised avoiding eating fish caught in the noted one-mile segment.