## ARCADIS

coordination with the installation of the sediment cap, and perform natural resource restoration/enhancement activities.

- GE shall install a cap over the entire bottom of the lake to achieve the design standards set forth in Attachment K to the SOW, including an isolation layer consisting of silty sand with a presumptive thickness<sup>1</sup> of 12 inches if geotextile is placed between the sediments and the cap or 14 inches without a geotextile, a total organic carbon (TOC) content of 0.5%, and concentrations of PCBs at non-detectable levels and other constituents at background levels.
- The capping system shall include an overlaying armor layer of stone incorporated along the shoreline as necessary to prevent potential erosion of the isolation layer due to wind-induced wave action.
- GE shall construct a shallow-water shelf along the shorelines of the lake to provide an improved habitat for aquatic species. This shallow-water shelf shall consist of an armoring layer of stone to be placed around the shoreline as part of the capping system. GE shall place a three-inch layer of gravel and sand over the armoring stone to facilitate fish usage on the shelf.

The CD and SOW also require GE to conduct natural resource restoration and enhancement activities at the Silver Lake Area. The Performance Standards for those activities are described below in Section 3.7.

This Conceptual Work Plan for Sediments proposes the scope of response actions to achieve the Performance Standards for sediments within Silver Lake as set forth in the CD and SOW. As such, the pre-design and proposed RD/RA activities summarized in this Work Plan pertain to sediments only. Activities relating to soils on or adjacent to the banks of Silver Lake have been addressed in separate submittals to EPA, and although integration with the remedial actions related to soils adjacent to Silver Lake is discussed in this document, the overall scope of Removal Actions with respect to such soils is not addressed herein. GE has submitted a separate Revised Conceptual RD/RA Work Plan for Soils Adjacent to Silver Lake (Revised Conceptual Work Plan for Soils) on October 22, 2008, and EPA issued a separate conditional approval letter for that submittal on March 4, 2009.

<sup>&</sup>lt;sup>1</sup> Pursuant to EPA's letter dated August 17, 2004 conditionally approving GE's *Pre-Design Investigation Report for Silver Lake Sediments* (Sediments PDI Report) (BBL, 2004), the indicated thicknesses were increased by 2 inches from the presumptive thicknesses of 10 inches with geotextile and 12 inches without geotextile specified in the SOW.

## ARCADIS

- Pilot Study Work Plan for Silver Lake Sediments (Pilot Study Work Plan) initially submitted in June 2006, conditionally approved by EPA in a letter dated July 18, 2006; revised and resubmitted in August 2006, and approved by EPA as revised in a letter dated August 30, 2006.
- Pilot Study Report for Silver Lake Sediments (Pilot Study Report) initially submitted in September 2007, conditionally approved by the EPA in a letter dated December 10, 2007; revised and resubmitted in January 2008, and conditionally approved by EPA as revised in a letter dated April 7, 2008.

The above-referenced documents include descriptions of the field investigation and sample collection and analysis activities performed during the investigation of the sediments and related environmental characteristics comprising the Silver Lake Area. This Conceptual Work Plan for Sediments builds upon the results of those prior activities conducted by GE, and based on the results of the investigations described in the reports listed above, presents: (1) a summary of the results of the pre-design investigation, bench- and field-scale study activities; (2) a proposal for conceptual sediment-related remediation activities, including natural resource restoration and enhancement activities; and (3) a discussion of the proposed construction related and long-term environmental and performance monitoring programs.

## 1.2 Site Description

Silver Lake is located in Pittsfield, Massachusetts (Figure 1-1). The lake is bordered to the north by Silver Lake Boulevard and to the west and south by several commercial and residential properties. Silver Lake has a surface area of approximately 26 acres and a maximum water depth of approximately 30 feet (Figure 1-2). The lake receives stormwater discharges from several municipal stormwater outfalls, as well as several adjacent residential and commercial/industrial properties. Silver Lake discharges to the East Branch of the Housatonic River through a 48-inch-diameter concrete pipe located in the southwest portion of the lake. This pipe conveys surface water from Silver Lake as well as stormwater runoff from Fenn and East Streets to the Housatonic River.

It should be noted that, at the time of the SOW, it was believed that the recreational areas along the banks on the northern and eastern sides of the lake were publicly owned. However, as noted by GE in the Revised Conceptual Work Plan for Soils, more recent information, based on historical research into deed records, indicates that portions of these areas adjacent to Silver Lake Boulevard and Fourth Street are in private ownership, with a portion owned by GE, a portion owned by Western Massachusetts Electric Company (WMECo), and other portions owned by entities that are no longer in existence. These



**General Electric Company** 

## Revised Conceptual Removal Design/Removal Action Work Plan for Silver Lake Sediments

Originally Submitted July 2008

Revised April 2009