

**LILY POND—LIMNOLOGICAL AND RELATED INVESTIGATIONS, COHASSET, MA**

**Client:** Town of Cohasset, MA

**Project Overseer:**

**Daniel J. Coughlin, P.E.**

Lily Pond is the location of the Town of Cohasset's surface water treatment plant. Lily Pond receives surface flows from the watershed and its tributaries, but during summer months has limited outflow. The shallow pond acts as a sink to nutrients and as a result, aquatic weed infestations are prevalent. Mr. Coughlin prior to forming CES provided technical review and oversight for a program to assess the extent of the nutrient problems, analyze bathymetric mappings and benthic deposit studies and devise a strategy to reduce aquatic vegetation and minimize taste impact to the Town's finished water. Work entailed watershed sampling and analysis, aquatic weed harvesting and pond dredging. Alternate pond feed strategies were also assessed to increase pond and nutrient flushing.

Water Treatment Plant upgrade measures were also evaluated to reduce taste and odor, decrease organic constituents in the raw water and reduce THM and HAA5 formation in the finished water. Water age estimates were also simulated via computer modeling to better maintain distribution system water quality.

The total value of proposed facilities was over \$600,000.



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