

Lake Hopatcong Phase II Restoration

Lake Hopatcong Commission (LHC)

Landing, NJ

Lake Hopatcong is New Jersey's largest and most heavily-used recreational lake. Princeton Hydro personnel conducted the Phase I Diagnostic and Feasibility Study of the lake. Princeton Hydro has been selected to assist the Lake Hopatcong Regional Planning Board and now the LHC with the Phase II restoration efforts which includes weed harvesting, water quality monitoring, assessment of development-related impacts, stormwater quality management, dredging, acquisition of ecologically sensitive lands, public education, and lake drawdown.

Focus has been placed over the last 10 years on the implementation of an intensive weed harvesting program and the construction of stormwater quality basins. The harvesting program annually results in the removal of approximately 2,000,000 pounds of weeds. The phosphorus contained in this plant material equates to roughly 8% of the lake's annual internal load. Steps have also been taken to decrease the lake's storm related nutrient and sediment loads. Working with local developers, the LHC with guidance from Princeton Hydro, constructed at least six stormwater quality basins and minimized erosion and infilling problems. The LHC also installed, with assistance from Sussex County, two large sedimentation chambers in the Ingram Cove section of the lake.

Princeton Hydro aided the LHC in acquiring \$250,000 in grant monies that were used to purchase Liffy Island, one of the largest contiguous undeveloped sections of the lake's waterfront. The area is an important fish breeding area and is utilized as habitat by a number of wading birds. The island also supports rare and State-listed species of wetland plants.

In an effort to promote a clearer understanding of the lake's ecology and solidify partnerships with the local stakeholders, a number of educational programs were developed and implemented by Princeton Hydro for the LHC. This included education seminars and presentations, a Lake's Tips pamphlet series (seven separate brochures), and a detailed lake ecology curriculum. The curriculum received national recognition from the USEPA. It consisted of a Teachers Manual and separate teaching plans (including various hands-on educational activities) for K-6, Middle School and High School. While the curriculum has been distributed to the local school boards, it has also been requested by school systems not within the Hopatcong watershed.

