

Deal Lake Regional Stormwater Management Plan

Deal Lake Commission

Loch Arbor, NJ

Princeton Hydro, as consultant to the Deal Lake Commission (DLC) and the other Deal Lake watershed partners, prepared a Regional Stormwater Management Plan (RSWMP) for the Deal Lake watershed. The project was funded through the NJDEP with 319(h) monies and was conducted in keeping with all the specifications and guidelines for RSWMPs as detailed in NJAC 7:8.

The 155-acre lake is located in a highly urbanized watershed that encompasses portions of seven Monmouth County municipalities (Allenhurst, Asbury Park, Deal, Interlaken, Loch Arbor, Neptune and Ocean). The lake and its tributaries are listed by NJDEP as having significant water quality impairments attributable to floatables, sediments, elevated phosphorus concentrations and excessive levels of pathogens. A TMDL was approved by the USEPA to reduce pathogens. The goal of the RSWMP was to create a legal instrument to mandate the specific measures and performance standards to address existing and future stormwater-related pollution and flooding problems.

A large part of the project involved completion of a year-long, highly detailed, characterization and assessment (C&A) study of the watershed. The C&A study involved baseline flow and storm event water quality sampling and seasonal biological monitoring. The resulting data were used to further quantify the water quality impairments, but more importantly to identify feasible management alternatives. This was accomplished largely by using the field data in concert with WINSLAMM modeling. Through this modeling effort it was possible to select restoration projects and prioritize these efforts in a manner that met long-term use impairment mitigation goals. All data were subject to NJDEP review.

Other elements of the project coordinated or implemented in full by Princeton Hydro included: public meetings, educational outreach and related activities, and detailed GIS mapping of the watershed's unique resource features, in particular headwater streams.

The RSWMP is currently being finalized and will be submitted to NJDEP as an amendment to the Monmouth Area Wide Water Quality Management Plan. Once adopted, the RSWMP will provide a legal means by which the DLC can mandate improved stormwater management measures for flood and pollution control in the Deal Lake watershed.

