

Dredging of Upper & Lower Aetna Lakes

Medford Lakes Colony Club

Medford Lakes, NJ

In July 2004, a torrential storm inundated Medford Lakes Borough with 13 inches of rain in under 12 hours. As a result, the dams located upstream of Upper and Lower Aetna Lakes were overtopped and breached and sent a subsequent flood wave, sediment and soil into these two lakes. The resulting flood wave then caused the Aetna Lakes' dams to overtop and breach. The influx of sediment additionally damaged a riparian park. Because of the importance of the lakes and park as recreational areas, and the lakes as a water source for firefighting, the Medford Lakes Colony Club decided to take advantage of the dewatered condition of the lakes and restore them. Princeton Hydro was selected to design, permit and supervise the dredging of Upper and Lower Aetna Lake, clean an adjacent small lake chain and remove the sediment that choked the park.

Throughout this comprehensive project, Princeton Hydro engineers worked with the Colony and residents to develop a dredging plan which would improve the community. Princeton Hydro began by developing a feasibility study, then completed field surveying, value engineering, engineering plans and sediment analysis. Princeton Hydro then obtained permits through NJDEP, the Pinelands Commission and the Burlington County Soil Conservation District.

The designs for this project included the development of access areas for construction equipment, as well as water diversions and erosion control measures. The team then provided construction supervision during the five month dredging process.

This successful project removed 77,000 cubic yards of sediment from the lakes and restored the riparian park on-time and under budget, renewing a lake system which had not been dredged since its construction in the 1920s.

