



CHALK POND ROAD AND DITCH STABILIZATION Newbury, NH

CLIENT

Sunapee Hills Association

CONTACT

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PROJECT COMPLETION

2010

DESCRIPTION:

This project involved methods to control sediment transport and erosion caused by uncontrolled stormwater runoff. Sunapee Hills is a large subdivision with its primary amenity being Chalk Pond, a 100-acre pond, with many of the homes centered around the pond and in the watershed above the pond. Much of the watershed is comprised of steep sloping terrain and a mixture of both developed residential home sites and undeveloped lots. This subdivision, with its network of roads, was constructed in the 1960's. The roads now belong to the Town of Newbury, NH but do not meet current standards for road construction today. Due to increasing development on these steep slopes and the condition of the roads and drainage ditches, the intensity of storms over the last 10 years has resulted in significant sediment deposition in Chalk Pond and erosion of the actual roadways and associated drainage ditches. CLD worked with the Sunapee Hills Homeowners Association and the Town of Newbury, NH to develop a plan for corrective action. CLD applied for and obtained a grant through the Federal 319 Watershed Program to develop a Stormwater Ordinance that required any lot development to address and implement stormwater erosion controls on each individual property. This ordinance was developed in conjunction with the Town Planning Board and other Stakeholders and, although written for conditions within the Sunapee Hills Subdivision, it was adopted and applied town-wide. Much of the Town sits within a much larger watershed to Lake Sunapee, within which Chalk Pond is a sub-watershed. In addition, much of the land within the Town is on slopes of over 15% and the Ordinance applies to land with slopes over 15 %.



The next step corrected the condition of roads and ditches in the watershed above Chalk Pond. CLD assisted the Town in applying for FEMA Mitigation Grant funding and obtained matching grant funds to stabilize those roads in the Chalk Pond watershed where damages due to erosion and uncontrolled runoff had occurred. Geo-fabric and a "hard pac" compacted new road surface were applied to these roads to produce a much more stable road surface. Built-up sediment was removed from many of the road ditches and drainage swales. Road ditches were enlarged and lined with geo-fabric and stone riprap. In addition, new larger culverts and headwalls were installed in several locations to give a greater carrying capacity.

This project began 5 years ago and has resulted in significant improvements in the water quality within both the Chalk Pond and Lake Sunapee Watersheds. CLD developed a guidance manual for use by homeowners and contractors to assist in implementation of proper erosion and stormwater controls now required to be included with building permit plans within the Town of Newbury. The Ordinance that CLD developed for Newbury, as well as the guidance manual, was also made available to other towns within the Lake Sunapee Watershed as a model Ordinance document for addressing stormwater runoff.

- Federal 319 Watershed Grant
- Stormwater Management
- Wetlands Permitting
- Survey
- Small, Lakefront Properties