



BABOOSIC LAKE COMMUNITY WASTEWATER SYSTEM PHASES 1-4 Amherst, NH

CLIENT

Town of Amherst, NH

LOCATION

Amherst, New Hampshire

COST

Estimated Construction Cost: \$1.5 Million

DESCRIPTION

CLD Consulting Engineers, Inc. (CLD), as well as many representatives from NHDES and the Town of Amherst, has been involved in the development of this project. The project design and construction was funded by the Federal 319 Watershed Restoration Grant, the NH State Aid Grant, the American Recovery and Reinvestment Act, and the users. The design permitting, construction administration, and funding assistance services were provided by CLD. As part of the design effort, CLD performed the design, permitting and preparation of the environmental documents; facilitated the public participation; coordinated easements; and prepared the contract plans and documents.



The Baboosic Lake Community Wastewater System project, located in the Town of Amherst Baboosic Lake watershed, was a multi-phase effort. The sources of water quality impairment targeted by this project were failed septic systems, problem systems, or systems in close proximity to both surface water and groundwater. These threats resulted in lake contamination including excess nutrient loading, E. coli contamination, toxic Cyanobacteria, and phosphorus contamination to Baboosic Lake and the immediately adjacent groundwater that recharges to Baboosic Lake. This type of contamination significantly reduced the overall water quality of Baboosic Lake and resulted in the loss of a natural recreational resource. CLD provided a needed improvement that maintained recreational and natural attributes prized by the public. The Baboosic Lake Community Wastewater System is now promoting improved water quality for Baboosic Lake and involves 44 homes, and included a pretreatment system that has nitrate removal, one of the few small systems in the United States.

The first phase of this project served 12 dwellings and provided a community equalization tank and two community leach fields on Town property. The properties served by Phase 1 were located on West Street and Washer Cove. During the Phase 2 portion of the project, a SeptiTech pretreatment system was installed which included a denitrification tank and one M3000 processor tank that dosed pretreated effluent to the leach fields constructed under Phase 1. Phase 2 served 10 dwellings and provided future capacity for three additional lakefront dwellings. During Phase 3, a second M3000 processor was added to the system to double the

pretreatment capacity. The system treated effluent with a completely biological process, which means no chemical addition is required. Phase 3 also expanded the collection system to include 11 properties on Clark Avenue and Clark Avenue Extension. The construction on each participating property included the installation of a gravity sewer pipe to convey sewage from their home to a Septic Tank Effluent Pumping (STEP) system. Phase 4 of the project expanded the collection system to include 10 more properties on Broadway and one property on West Street.

- Compact Site Conditions
- Survey & Test Pits
- Federal 319 Watershed Grant Assistance
- Community Wastewater Design
- NHDES Permitting
- Construction Administration & Inspection