

Lake Luzerne Onsite Wastewater Improvement Grant



Final Report to the NYS Soil and Water Conservation Committee

Submitted By:

Dave Wick, Chairman
Warren County Water Quality Strategy Committee

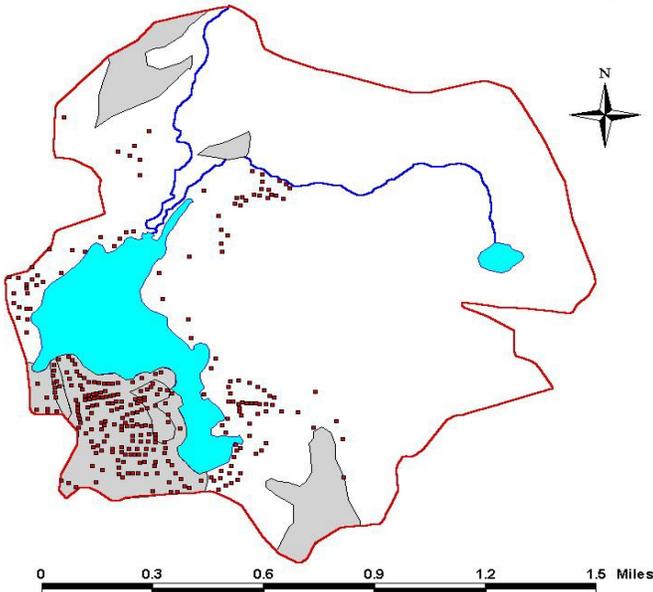
c/o Warren County SWCD
51 Elm Street, Warrensburg, NY 12885
Phone: (518) 623-3119 Fax: (518) 623-3519
Email: district@nycap.rr.com

October 10, 2006

Lake Luzerne Onsite Wastewater Improvement Program

Introduction

Lake Luzerne is a small lake within Warren County (approximately 111 surface acres), located in the Town of Lake Luzerne. It has a surrounding watershed of approximately 1,104 acres. It is a popular lake used by permanent and seasonal residents for a variety of recreational uses. Lake Luzerne is a DEC Class B Watershed and is currently identified by the NYS DEC Priority Water List (PWL) as having use impairments such as bathing (stressed), fish propagation (threatened) and aesthetics (threatened). The water quality of the lake is of great concern to the residents, the Town, and to Warren County, as it attracts vacationers from all over the northeast. With that in mind, the Warren County Soil and Water Conservation District, the Lake Luzerne Association and the Warren County WQCC had great interest in addressing the identified water quality concerns.



The NYS SWCC mini-grant awarded in 2004 to the Warren County Water Quality Strategy Committee has enabled the Warren County SWCD to undertake an Onsite wastewater treatment improvement program.

Residences within the watershed (approx. 300, shown by red dots). Grey areas represent "Oakville" soils, which provide "poor" filtering of septic effluent as defined in the Warren County Soil Survey.

In order to begin an undertaking of septic evaluation and pumpout program, the Warren County SWCD evaluated properties using a Geographic Information System (GIS). The District identified 145 properties within a 200-foot buffer zone of the lake. Out of the 145 properties, 129 were identified as having a bathroom, and using infrared imagery, approximately 101 dwellings actually fall within the 200-foot buffer zone. It is on those properties that the bulk of the work was focused on, as they would be the most likely to impact the water quality of Lake Luzerne.



Project Description

In the summer of 2005, the identified landowners were sent a letter explaining the program and a postcard for them to send back if they were interested in participating in this program. Prior to the letter, SWCD staff had presented at the Lake Luzerne Association's Monthly Board Meeting the proposed septic program to inform landowners of this project. Landowners who signed up through this program would become eligible for a bulk rate price and would receive partial reimbursement for the cost of the pumpout. In addition to the pumpout program, septic education material, and water conservation kits were available to the landowners.



When the District received enough positive pumpout responses, the District's Office Manager set up date, time and locations for the pumpouts between the landowners and Cook's Septic. This system worked exceptionally well, as 34 septic systems were pumped out. Multiple daily pumpouts were arranged to maximize the time spent. Pumpouts were preformed on Tuesdays and Thursdays of the week.

During the pumpouts, District staff would discuss septic systems and water conservation. A septic system folder developed by Cornell Cooperative Extension was provided to each landowner at no cost to them. During the visit, District staff discussed water conservation as a way to reduce electrical costs and stress on the septic systems, which was well received by the landowners. The contact time between District staff and the landowners has proved invaluable for the landowners and the staff as well. The Lake Luzerne Association and the District is looking to continue this type of program future, depending on costs and financial support.

A number of volunteers from the Lake Luzerne area and the Lake Luzerne Association were instrumental in completing this project. Through these contacts we have learned that this program has received all positive comments and responses.

In addition to the septic pumpout and education program, the District handed out over 100 water conservation kits as a result of the interest in these quality kits. The water conservation kits provided to landowners included a 2.0 gallon per minute (gpm) showerhead, a 2.0 kitchen faucet

Cornell Cooperative Extension Publication FS-1

Your Septic System

If you are a suburban or rural resident, you probably depend on a septic system to treat and dispose of your household wastewater. The purpose of a septic system is to treat liquid wastes from your house in order to prevent contamination of your well and nearby lakes and streams.

When a septic system is . . .
Suitably located . . . properly designed . . . carefully installed . . . and adequately maintained
You will have a waste disposal system that is . . .
Effective . . . Economical . . . and Safe!

Maintenance is the key to a lasting septic disposal system. Read and use this folder to learn:

1. how a septic system works
2. why and how to adequately maintain your septic system
3. how to keep your own maintenance record

How Your System Works

A septic system has two basic working parts:

<p>Septic Tank Wastewater flows from the house into the septic tank. Here heavy solids settle and are partially decomposed by bacteria to form sludge. Light solids and grease float to the top forming a scum layer.</p>	<p>Soil Absorption Field Partially treated wastewater is discharged from the septic tank through perforated pipes into an absorption field. Here, the water is further purified by filtration and decomposition by microorganisms in the soil. This is the last line of defense to prevent polluted water from entering lakes, streams, and groundwater.</p>
--	---

aerator, 2- 1.0 gpm bathroom sink aerators, a toilet bag (displaces 1 gallon of water in the tank) and several items that measure water use. We were extremely happy with the quality of this kit that was purchased from www.niagaraconservation.com and would recommend it highly for any other program of this type.

Final Project Budget

<i><u>Item</u></i>	<i><u>Budget</u></i>	<i><u>Actual</u></i>
Performing & Reporting Inspections	\$3,000	\$3,200
Develop an Active Strategy for Resolution of On-site Problems	\$7,000	\$7,900
Water Conservation Program	\$4,500	\$4,600
Development of GIS database of On-site systems	\$3,500	\$3,780
Total	\$18,000	\$19,480

State Funds Provided: \$15,000
Local Match Provided: \$4,480
Total Project Final Cost: \$19,480

Conclusion

The Lake Luzerne Onsite Wastewater Improvement Project most likely will reduce the amount of non-point source pollutants and pathogens that reach Lake Luzerne from failing and improperly maintained onsite septic systems. Water conservation is not a main priority in this water rich county, but tying it to energy savings and load reduction on septic systems, certainly brought it into focus. This project has received extremely positive feedback from landowners, the Lake Luzerne Association and the Town of Lake Luzerne. With the significant cooperation between the Warren County Water Quality Strategy Committee, the Town of Lake Luzerne, the Warren County SWCD and the NYS SWCC, this important water quality improvement project has been a great success.

