

TOWN OF SHERMAN Ordinance Regarding Septic System Management

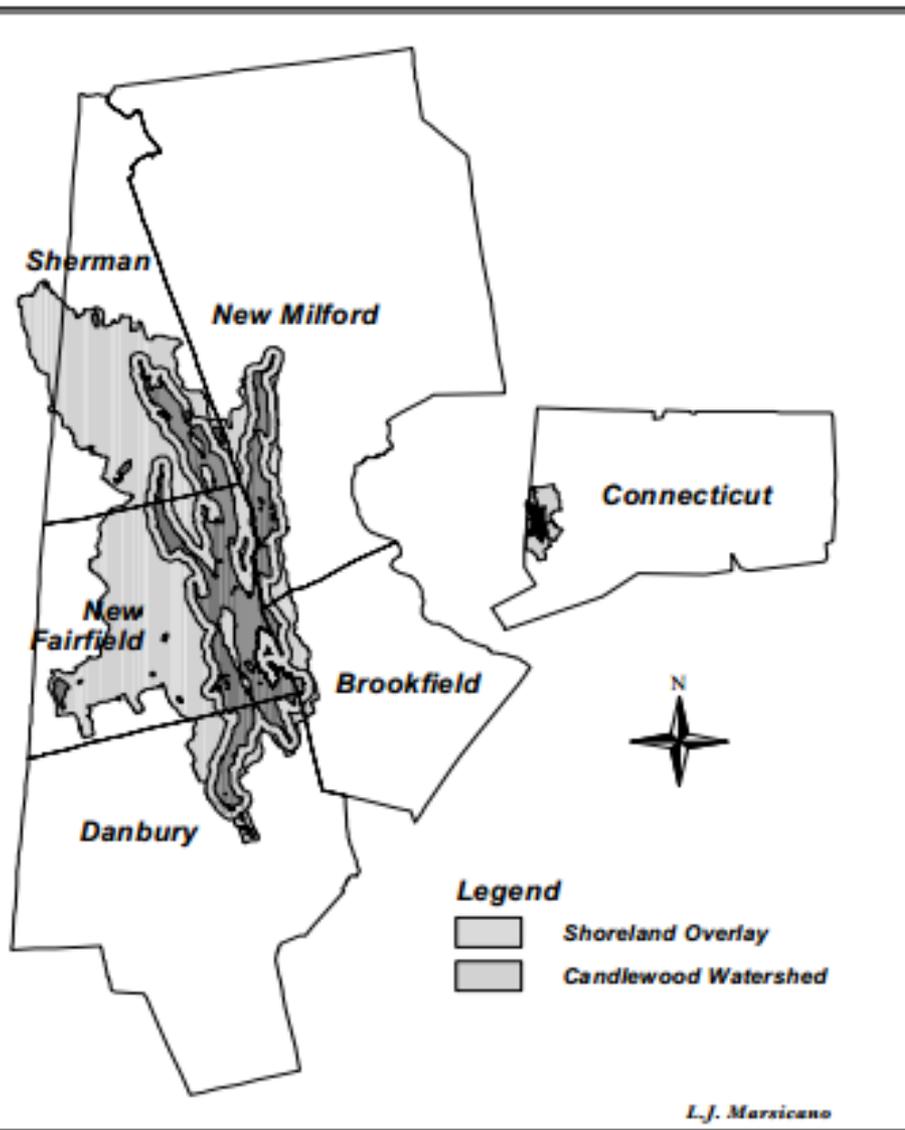


Timothy Simpkins, Director of Health, MA RS

- Masters in Oceanography and Limnology
- RS- Registered Sanitarian
- Master thesis: “The Dynamics of Autochthonous and Allochthonous Phosphorus and its Effect on Primary Productivity in Danbury Bay, Candlewood Lake, CT”

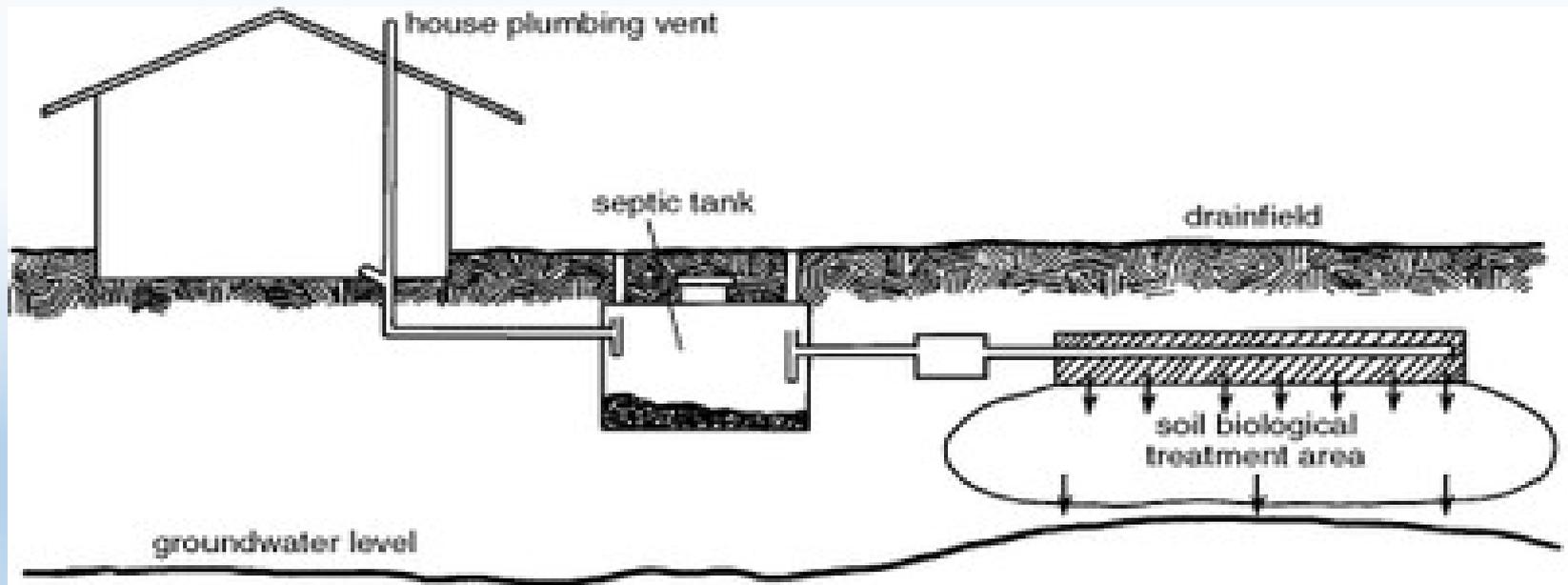
By area, 51% of Sherman is within Candlewood's watershed

- Sherman is home to 15 named waterbodies and countless smaller tributaries, brooks and ponds including:
- Candlewood Lake, Lake Mauweehoo, Timber Lake, Green Pond, Valley Pond, Deer Pond, Housatonic River, Wimisink Brook, Quaker Brook, Spring Lake, Sawmill Brook, Tollgate Brook, Greenwood Brook, Millpond and Glen Brook



Town	Acres of Watershed	% Of watershed within municipal boundary	% Of municipality within watershed boundary
Brookfield	1,177	4	9
Danbury	2,726	10	10
New Fairfield	12,197	46	72
New Milford	2,629	10	6
Sherman	7,132	27	51
New York State	600	3	
Total	26,461		

Septic System



Septic systems can work well:

- Family of five produces five pounds of phosphorous and 27 pounds of nitrogen per year
 - One pound of phosphorous can produce 500 pounds of algae blooms*
 - Good functioning septic do a great job of sequestering phosphorous, failing one does not
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- *http://www.cleanwatermn.org/app_themes/cleanwater/pdfs/forTeachers/Algae.pdf

Why Septic's Fail: design, installation, operation and maintenance

- Poorly designed- undersized for current use
- Improper usage
- Poor Maintenance- insufficient pumping schedule
- Poor Maintenance- Clogged D boxes

- Identifying potential problems early could dramatically reduce the costs of repair

Sherman compared to neighboring Towns

- Of the five towns surrounding the Lake, Sherman is the only one that either does not have some sewers (Danbury, Brookfield, New Milford), or have a septic walk over program (New Fairfield, Brookfield).
- Better that Sherman proactively manages Towns Septic's and not wait for State to take possible action
- In the past, New Fairfield, Brookfield and Danbury had each been served with pollution abatement orders by the State

Oct 2013- Huge Wake Up Call



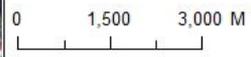
Cyanobacteria Blooms:

- EPA: Cyanobacteria can cause health related symptoms “including gastrointestinal illness, liver disease, neurological effects, skin reactions, and possible cancer in humans”.
- Connecticut Department of Health guidelines require beach closures for two weeks after bloom dissipates
- State Department of Health watching Candlewood Lake’s watershed carefully following 2013 Cyanobacteria bloom
- Candlewood Lake Authority study indicates 29% decline in all property values should Candlewood Lake become permanently impaired
- The federal Environmental Protection Agency has warned that, with climate change and warmer temperatures, harmful algae blooms may occur more often.

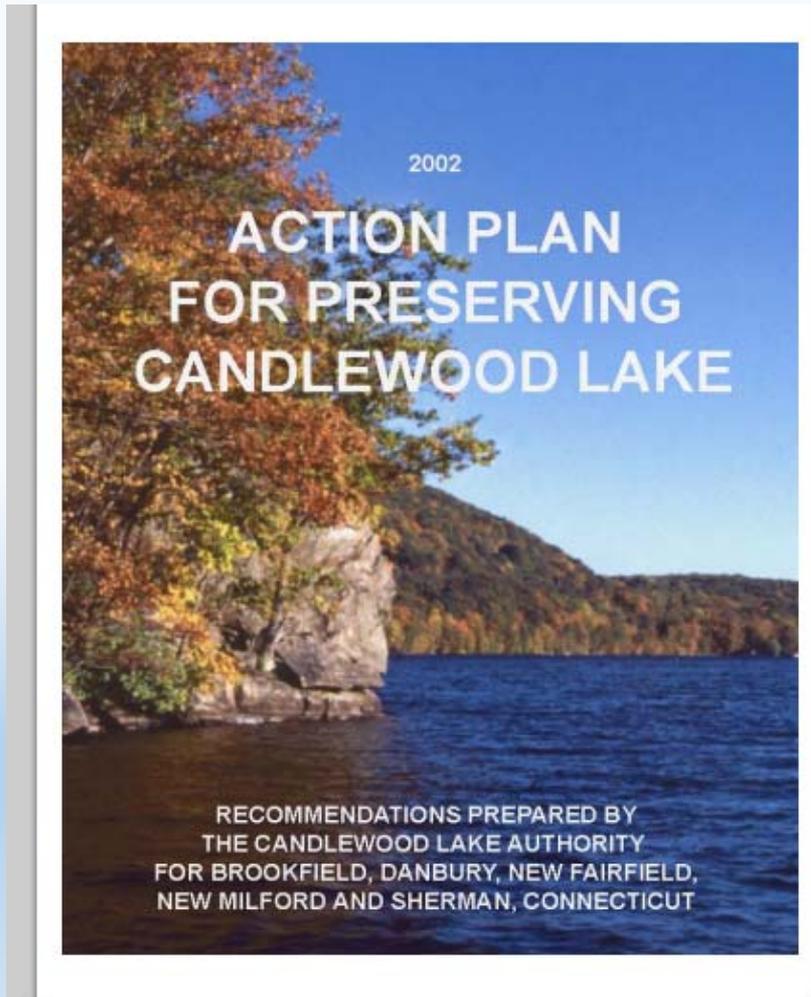


Candlewood Lake, CT
08/21/2013

Natural Color Image



For More Background:



Extremely Cost Effective Program

- Properties within the Candlewood Watershed to be walked over once every three years
- Projected costs for the Town are ~\$3k/year
- Approximately ~\$3.00/year per residence
- Estimate for Sewers around Ball Pond was \$29.2 million (1990 dollars)
- EPA/DEEP Danbury phosphorous sewage plant reduction est. cost \$40 million
- EPA/DEEP Pittsfield MA phosphorous sewage plant reduction est. cost \$40 million

Municipality	Year(s)	No. of Inspections	No. of failures detected	%
Torrington	1979 – 1990	116	20	17.2
New Hartford	1979 – 1990	2,662	232	8.7
Brookfield	1998	2825	N/A	N/A
	1999	362	16	2.5
	2000	944	9	1.0
New Fairfield	1991	809	19	2.4
	1992	1927	78	4.1
	1993	615	16	2.6
	1994	2791	58	2.1
	1995	1933	92	4.8
	1996	2380	39	1.6
	1997	2095	58	2.8
	1998	1853	50	2.7
	1999	2081	25	1.2
2000	1772	54	3.1	

Modifications made to Sherman's draft ORDINANCE REGARDING SEPTIC SYSTEM MANAGEMENT:

- **Program only applies to those properties within the Candlewood Watershed**
- The Town will make available on its website a listing, by week, of the properties to be inspected therefore providing prior notification to residents of the approximate timing of the walk-over inspection.
- A resident can, solely at their expense, engage a licensed Septic company to conduct an inspection of their septic system and submit a letter to Sherman's Board of Health certifying that it is in good working order. Having such a letter on file dated within three years of the Town's scheduled walk-over will eliminate that property from inspection for the current inspection cycle.
- At the conclusion of one-cycle (three years), a committee including the three Selectman and Sherman's Director of Health will review the effectiveness of the program and consider any necessary changes to insure that the program is meeting its intended goals.