



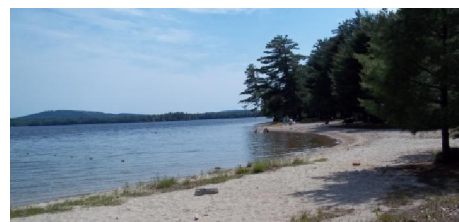
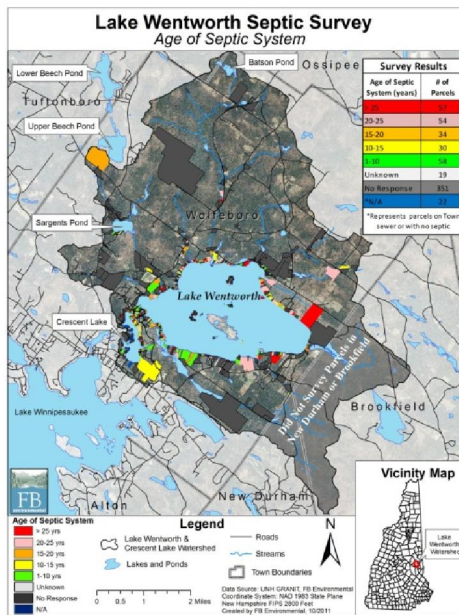
Lake Wentworth Septic Survey

THIS SURVEY COLLECTED BASELINE DATA TO ASSESS THE IMPACT OF SEPTIC SYSTEMS ON WATER QUALITY & TO EDUCATE LANDOWNERS IN THE PROCESS.

The Town of Wolfeboro received a NH DES 319 Watershed Assistance Grant for High Quality Waters and hired FB Environmental Associates (FBE) to develop a Phase I Watershed Management Plan for the Lake Wentworth/Crescent Lake watershed in Wolfeboro, NH.

Septic Survey Methods

1. Town parcel and building GIS data were used to identify 625 properties within 250 ft of all waterbodies, which were then divided into 12 sectors.
2. Volunteers delivered postcards to each property within their neighborhood (by sector) in advance of the survey.
3. Door-to-door surveys were conducted by FBE with assistance from 21 resident volunteers over the course of 11 days from August 6 to September 12, 2011. The questionnaire included: type of system, age, use (year-round or seasonal), occupancy, distance to waterbody, pumping frequency.
4. Brochures on stormwater, native landscaping and septic systems were also distributed to landowners.
5. If the landowner was not home, septic surveys and brochures were left at the property.
6. Survey results were used to help estimate phosphorous loading from developed areas in the watershed.
7. In addition to the septic survey, each property was assessed for stormwater runoff.



PROS

- Residents were more responsive when 1) technical staff were accompanied by neighborhood volunteers, and 2) landowners had advanced warning via postcards.
- The door-to-door survey method provided a chance for landowners to ask questions about septic and stormwater issues and become more educated about their effects on water quality.
- Optional online or mail-in responses helped increase return rate by offering a raffle prize to a local restaurant.

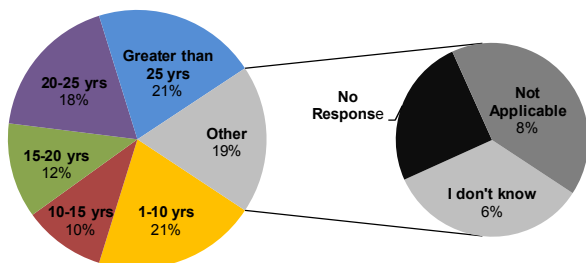
CONS

- Year-round landowners were generally not home during weekdays (most likely at work), and mail or online response rates were much lower than in-person responses.
- Landowners that were not on the immediate lake shore had less identity with the water quality of tributaries.

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How old is the septic system?



Model Results

Out of the 625 total properties visited, 552 were identified as active sites from which 54% responded to the survey. Results from 15 questions (as shown to the left) helped prioritize outreach activities for those landowners that have older systems (39%) within 50 feet of the shore (6%) and that rarely pump out their systems (3%). Septic system loading estimates from the lakes loading response model (LLRM) indicates that 92 kg of phosphorus is discharged to the lakes as a result of septic systems. These values will be used to estimate total phosphorus loading to the lakes as part of the watershed management plan. The Lake Wentworth Foundation and the Town of Wolfeboro will be using these results for targeted education and outreach for septic system improvements throughout the watershed.