



Manitoba Onsite Wastewater Management Association

August 28, 2015

How does creating a good wastewater management program for onsite, decentralized, or even centralized systems help protect source water?

Solution Is More Than Technology

Technology is not the limiting factor in protecting source water from wastewater contamination. There are technologies, such as sand filters, that have been successfully used for 100+ years. Many other robust technologies have been developed and are appropriate to either encourage or mandate in areas with critically important or highly vulnerable drinking water resources.

What we have learned over the past 30+ years is that the solution to source water protection is not simply technology based. We now understand that we must also implement a program to ensure that the technology is used in the right situation and cared for properly. A good management program will ensure that wastewater treatment systems are designed properly and placed in the appropriate location. It will make sure that knowledgeable people install the technology and that the people who inspect and approve it are also knowledgeable. A good management program will provide helpful information to users of the technology and make sure that well-trained people perform timely maintenance and required upgrades. Finally, a good management program will carry out the necessary technology monitoring and environmental follow-up to double-check that the water resources remain protected.

Responsibility Is to Preserve and Protect Water Quality

It is a well-known fact that it is less expensive to treat clean water for human consumption than contaminated water. The U.S. Environmental Protection Agency (EPA) recognized this, and in 2003, they published their "Guidelines for Management of Onsite and Clustered (Decentralized) Wastewater Treatment Systems."

At that time, EPA's message was:

1. "Given today's high capital costs for centralized municipal sewage treatment plants and sewers, we are not going to sewer the nation."
2. "Given that, and today's newer technology, a properly designed, properly sited, properly installed and properly maintained onsite wastewater treatment system poses no undue health risks to the environment or general public."

However, all that criteria must be met. It must be properly designed, properly sited, properly installed and most importantly, properly maintained."

Canandaigua Lake is a drinking water source for five municipalities with more than 65,000 people. The purpose of the Canandaigua Lake Watershed Inspection program is to ensure that the water quality of

the lake is maintained at a high standard to fulfill this purpose. The New York State Public Health Law charges and empowers the Watershed Commission to enforce the Canandaigua Lake Watershed Rules and Regulations.

At EPA's Region 2 meeting, I realized that our inspection program, as operating, is a "Responsible Management Entity" (RME), and a Model 2 according to EPA's Guidelines for Management of Onsite Wastewater Treatment Systems, with Model 1 being the weakest and Model 5 being the most strict.. After that EPA Region 2 meeting, efforts were made to elevate this inspection program from a Model 2 to a Model 3.

Under Model 3, our inspection program now:

1. Inventories all onsite wastewater treatment systems.
2. Provides regulatory oversight.
3. Identifies problems needing attention prior to failures.
4. Establishes system performance and monitoring requirements.
5. Issues operating permits.
6. Tracks systems for operating permit and compliance monitoring.

As the watershed inspector, my duties include patrolling and inspecting for sources of point and non-point pollution, investigating complaints, serving notices of violations and seeking correction or mitigation. I work directly with property owners, municipalities, and code enforcement officers with the review of plans, and inspection of the installation of all onsite wastewater treatment systems to ensure compliance with current New York State Department of Health and the New York State Department of Environmental Conservation requirements.

Canandaigua Lake only has public sewers along the northern 1/3 of the shoreline. Since the rest of the shoreline residences, as well as the rest of the watershed (174 sq. miles), rely on onsite wastewater treatment systems, the design and location of these systems has to rely on modern technology and innovative alternative designs. Many existing lots, especially shoreline lots, were created prior to present zoning laws and are very small with little land space to support onsite wastewater treatment systems. Therefore, I work directly with consulting engineers through the design process of innovative designs for these difficult sites.

In summary, the Canandaigua Lake Watershed Commission's overall responsibility is to preserve and protect the water quality of Canandaigua Lake as a drinking water source for more than 65,000 people. With current technology and innovative designs, our inspection /management program with its inventorying, permitting, and monitoring has demonstrated that onsite systems can be designed and placed on properties that will not only function adequately for the homeowner, but also protect the surface water and groundwater of not only Canandaigua Lake Watershed, but also the surface water and groundwater of the State of New York.

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Red River College, Winnipeg, MB
October 26 – 30, 2015

To register or inquire about upcoming courses contact:

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