

Zebra mussel control filter available locally

With summer just around the corner, lake property owners may begin to encounter in a real way the nefarious effects of the zebra mussel, which has taken hold in both Otsego and Canadarago lakes. Impacts from the zebra mussel include a foul taste and smell in household water, clogged pipes, obstruction of foot-valves, and increased corrosion of steel, iron, and copper pipes, as well as debilitated sprinkler systems.

There is some good news, however. At least one device designed to control zebra mussel damage is now available locally, at Bruce Hall Home Center in Cooperstown. The device, manufactured by Primär Filtration of Penn Yan, goes by the name of the Shredder. According to John Long, Primär's founder, the Shredder has been in use for 15 years in the Finger Lake and the Lake Champlain regions of the U.S., as well as in Canada.

Long describes the filter as being four inches in diameter and 17 inches long, made with a high grade steel fired at 2,000 degrees Fahrenheit.

Randy Reckeweg of Bruce Hall is pleased that Bruce Hall is getting involved with zebra mussel control by making these filters available.

"We chose it because of its proven use," Reckeweg said, adding that the store has already sold five filters and is putting together a mailing list to send information to other lake property owners.

"When camps were being closed up last winter, a lot of zebra mussels were encountered," he said.

A Primär informational sheet provides the following description:

- Each filter can accommodate a minimum flow rate of 80 gallons per minute and will not be affected by strong system back-flushing;
- The Shredder's reusable filter cartridge design allows for uninterrupted, low-cost protection of residential water systems;
- Annual recycling of the cartridge ensures maximum efficiency and keeps maintenance costs at a minimum;
- Because the Shredder is an offshore installation, zebra mussels never even enter the water system, eliminating repair costs and cleaning expenses which often occur when zebra mussels have colonized in household plumbing.
- More than 1,000 filters have been purchased, with a high degree of customer satisfaction.

According to Long, Primär commissioned the scientific and engineering company ACRES International to conduct an independent analysis of the filter. The conclusion was that the Shredder was all but 100 percent effective in screening out zebra mussels in all phases of their life cycle. Long cautioned, however, that the filter will not reduce bacterial cysts – a measure which must take place within the home.

For details on installation of the Primär Shredder, contact the Bruce Hall Home Center at 547-9961.

Charles R. O'Neill, Jr., a zebra mussel expert with New York Sea Grant, advises homeowners using a zebra-mussel-infested water body as a water source to take early action to keep the mussels out of the onshore component of their systems before the systems become infested.

Controls are of two types -- onshore and offshore. Onshore components are generally simpler and less costly to protect from the zebra mussel, but more difficult and costly to clean when infested. Conversely, offshore components are more difficult and expensive to protect against clogging, but easier to clean out once infested. The Primär Shredder costs just under \$400.

Onshore controls include in-line filtration, chlorine injection, shoreline wells or cisterns, and traditional wells. For offshore control, one common method is an infiltration gallery, which consists of porous intake pipes or well screens laid in trenches excavated in the bed of a lake or river. They must be designed in such a manner as to allow for backwashing of the sand filter.

Another offshore control is the raised sand filter, a system in which perforated pipes or well screens are laid upon a layer of gravel placed on a river or lake bed. The pipes are covered with a raised fill of gravel and sand, which is then covered with gravel and crushed stone or cobble. This system closely resembles a raised fill septic leach field in reverse. It also needs to be periodically backwashed.

Yet another sand control is the enclosed or prefabricated filter, which is constructed of perforated pipe running lengthwise through a concrete, steel, or plastic box filled with coarse sand and placed into a water body. This type of filter is a lower cost alternative for seasonal or weekend residences.

Ceramic and cartridge filters are currently on the market; however, due to their novelty, potential buyers should carefully research the performance and maintenance requirements of these filters before purchasing.

Another approach to controlling zebra mussels offshore allows for a certain amount of clogging in the intake pipe, followed by periodic cleaning of the system. Methods of cleaning include snaking, suffocation, desiccation, and thermal and chemical treatment.

“In some cases, permits may be required, so homeowners should check with the Village of Cooperstown’s Watershed Supervisory Committee before taking action,” said Erik Miller, OCCA executive director.

According to a Sea Grant fact sheet dealing with private resident control of zebra mussels, multi-resident zebra mussel control systems may reduce installation costs, and a long-term solution to the problem of zebra mussel infestation may be to extend public water systems to areas not already serviced.

The Otsego County Conservation Association has posted on its website, www.occainfo.org, articles related to the zebra mussel. Otsego and Canadarago lake homeowners are likely to be most interested in the fact sheet titled “Control of Zebra Mussel in Residential Water Systems.”

OCCA is a private, non-profit environmental membership organization dedicated to promoting the enjoyment and sustainable use of Otsego County's natural resources through education, advocacy, resource management, research, and planning. For more information on OCCA, or to donate, call (607) 547-4488 or visit www.occainfo.org