

Zebra mussel control device available locally

With the invasion of the zebra mussel in both Otsego and Canadarago lakes, lake property owners are in need of means to prevent the destructive species from entering their household water systems. After receiving a number of inquiries about control devices, Jeff Haggerty of Ace Hardware is stocking Team filters.

The pleated, cleanable filter, which is part of the pump's foot valve, "polishes" the water to a very fine 25-micron absolute. These filters remove sand, silt, zebra mussels in their larval stage, spiny water fleas, and schistosomes, which are a trematode worm parasite.

"The half-horse power Team Zebra 90 is most in demand because it's for a submersible pump and year-round use. It costs about \$375," said store owner Jeff Haggerty.

Two other sizes of the filter are available – the Team Zebra 40, which is designed for more limited use (a jet pump at a seasonal camp, for instance) and the Team Zebra 170, which is for households using a great deal of water.

Alex Milne Associates, the manufacturer, claims that the pleated filters allow up to 10 times the flow of old-style, flexible cloth filters and that they maintain their filtering accuracy for up to 10 years. The filter may be easily cleaned with a brush. It must be pulled and cleaned once a year. A spray cleaner for this task is also available at Haggerty's establishment.

According to Haggerty, the product, which originated in Canada, has been available for a number of years and has been government-tested. Alex Milne Associates has been in business for approximately 30 years.

Haggerty pointed out that the filter does not prevent bacteria from entering the water system. Only chlorination or ultraviolet light will eliminate bacteria.

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.

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.

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.

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 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 and zebra mussel control.