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OCCA offers zebra mussel information

The Otsego County Conservation Association has posted under the "Current Issues" section of the home page of its website, www.occainfo.org, articles related to the zebra mussel, an invasive mollusk that has taken hold in Otsego and Canadarago lakes. The articles give advice for lake property owners on how to control this invasive species.

Also included are suggestions for local fire departments on how to ensure that clean waters are not inadvertently infested by fire department practices and that fire equipment is kept free of zebra mussel infestation and damage. General information on the origin, characteristics and harmful effects of zebra mussels has also been posted.

Several of the articles posted are compiled and distributed by New York Sea Grant, a statewide network of integrated research, education and extension services, which addresses issues such as shoreline protection, fisheries, aquatic invaders, water quality and other issues vital to aquatic ecosystems.

The fact sheet titled "Control of Zebra Mussel in Residential Water Systems" is aimed at residents, reminding them that the ill effects of 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.

"Given our recent freezing temperatures, it may be hard for lakeside residents to be thinking ahead to summer and what they should be doing to combat impacts of the zebra mussel, but we encourage them to be doing just that," said Erik Miller, OCCA executive director.

Officials said controls for the mollusk 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 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 available on the market, but officials advise potential buyers to 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," Miller said.

According to the article 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.

One of the less recognized threats to the spread of zebra mussels is associated with fire station management of water and equipment. Neither fire truck tanks nor aerial water tanks that have been filled from infested waters while on call should be purged where water might flow into uninfested waters. Hoses and pumping systems may carry zebra mussels. Mussels also tend to grow around and in the mouth of dry hydrant intakes. Ways of controlling the zebra mussel in all of these situations are describe in the Sea Grant articles.

"We will be contacting all the fire departments servicing Otsego and Canadarago lakes," Miller said. "Obviously, it's important that we share this information with them, and we would like for them to pass along any useful information they may have for us, as well."