

Public health concerns: Is our water safe?

Beach closings have been the target of a great deal of public concern around the Great Lakes the past few summers. In metropolitan areas, a frequent cause is sanitary sewer overflows during rain events.

In our watershed, sewer overflows are less common. Beach contamination is usually caused by other sources, such as stormwater. Stormwater carries animal waste (dogs, ducks, geese, etc) and other substances into tributaries and then into the bay. In outlying areas, runoff carries contaminants from farms, improperly sited or maintained septs, and natural sources into streams, rivers and lakes.

The USEPA recommends that freshwater recreational water quality be measured by the abundance of *Escherichia coli* (*E.coli*) or by a group of bacteria called *Enterococci*. *E.coli* is a common intestinal organism and a good indicator organism. While the specific kinds of *E. coli* measured in recreational water do not generally cause disease, high counts indicate that conditions are favorable for the growth of other harmful pathogens that may cause illness in humans.

Monitoring water quality at public beaches is one way of safeguarding public health. For the past three years, The Watershed Center has worked with the Benzie/Leelanau District Health Department and the Grand Traverse County Health Department to test key beaches throughout the three counties. The Center coordinates the testing and reports the results to both the local health departments and the State of Michigan. It is the responsibility of each health department to close a beach or



Top, Volunteers from Floor Covering Brokers clean trash and debris from West End Beach. Right, The Annual Boardman River cleanup is sponsored by area realtors.

post an advisory. Last summer, 13 area beaches were tested weekly and there were no beach closings due to high bacteria counts.

Are our fish safe for eating?

Fish are known to be a major pathway of human exposure to persistent toxic substances, such as PCBs and mercury.

Unfortunately, there are number of advisories in place for fish consumption in Michigan including a special advisory for all inland lakes in Michigan due to mercury levels. Mercury is toxic to the nervous system and can cause a variety of health problems. There are also advisories for fish from the open waters of Lake Michigan due to PCBs, dioxins, mercury, DDT and chlordane.

The amounts of chemicals currently found in Michigan fish are not known to cause immediate sickness, but



chemicals can collect in the body over time.

To protect yourself, get familiar with Michigan's advisories. The complete list can be found at the website listed on page 15. There are many things you can do to reduce your risk but still enjoy the bounty of Michigan's waters, such as eating smaller fish and using different cooking techniques.

What about wastewater?

Wastewater consists of water used in your home. It contains waste materials added from your kitchen, your bathroom and your laundry room. If you live in a town or village, you are

likely on a municipal sewer system – otherwise, you are one of the 75percent of area residents who treats their wastewater using a septic tank.

Population growth and the need for greater wastewater treatment capacity is an important issue that needs addressing in our area. Many small villages and towns are being forced to consider either building treatment systems to replace aging septic tanks, or upgrading existing systems as is the case in Suttons Bay. As suitable open land becomes scarcer, the disposal of septage is also becoming problematic. In Traverse City, the

WATERSHED

ACCOMPLISHMENTS:

■ The village of Kalkaska recently opened its new \$5.5 million wastewater treatment plant.

■ Suttons Bay is beginning to research options for replacing or upgrading their treatment facility to accommodate growth. The current facility has experienced problems in recent years during peak usage months.

■ Northport has hired a consultant to help them explore wastewater treatment options. Currently, village residents are all on septic systems.

■ Grand Traverse County has purchased land to build a state-of-the-art septage treatment plant.

wastewater treatment plant, which services outlying areas as well, is currently undergoing a \$31 million dollar upgrade to tertiary level treatment. When complete, it will be the largest facility in North America featuring an innovative technology called an immersed membrane bioreactor. This treatment process will produce effluent to a quality that far exceeds standards required by the facility's discharge permit.

WAYS YOU CAN HELP

■ Participate in beach and river cleanups.

■ Don't feed waterfowl. Unnaturally large populations of ducks and Canadian geese contribute to beach contamination problems and swimmer's itch.

■ Clean up pet wastes.

■ Maintain your septic system properly.

■ Cap off abandoned wellheads on your property to protect groundwater for drinking.