

Bay Pollution Called Human Peril

Bacteria, contaminants reported sickening people as well as fish

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The same pollution afflicting the Chesapeake Bay's fish and shellfish poses human health risks to people in the region, from bacteria and harmful algae in the water to contaminants in fish and drinking water, the Chesapeake Bay Foundation says.

In a report released today, the Annapolis-based environmental group said the incidents of infection and illness among people who swim and wade in the bay's waters warrant greater government action to protect the public from pollution.

"Dirty water doesn't only have an economic impact, it's got a human health impact as well," said William C. Baker, foundation president. "People are getting sick, and in some cases severely so."

The group sued the Environmental Protection Agency in January, accusing the federal government of failing to enforce the Clean Water Act in not taking a stronger hand in the 26-year bay cleanup effort. Baker said the group has been unable so far to negotiate an acceptable settlement with agency officials.

The report quotes scientists saying that the same nutrient pollution turning much of the bay into an oxygen-starved "dead zone" for fish is a factor in the growth of dangerous bacteria, such as *Vibrio* and *Cryptosporidium*, as well as harmful blooms of blue-green algae.

The number of *Vibrio* infections in Maryland has increased from 18 in 2001 to 33 in 2008, the report says, but the increase may stem in part from a change in reporting requirements. *Vibrio* are a class of bacteria found naturally in most water, but certain species can cause skin ulcers and blood infections in people with exposed cuts, or severe gastrointestinal illness in people who eat contaminated shellfish.

Bacteria and disease-causing organisms from animal or human waste pose another threat to those who come in contact with bay waters, the report says. Reported infections from one type of bacteria, *Mycobacterium marinum*, commonly called "fish handler's disease," have increased from nine in 1998 to 25 last year in Anne Arundel County, the foundation says.

Bernie Voith of Crownsville contracted a life-threatening blood infection four years ago from a different bacteria after swimming by his house on a tributary of the Severn River. Voith, 81, says a scrape on his leg developed into a nasty, open wound, and he spent two weeks in the hospital. He says he hasn't been back in the water at Arden on the Severn since.

Richard Eskin, director of science services for the Maryland Department of the Environment, says officials lack enough information to tell whether such water-related illnesses and harmful algae blooms are increasing or decreasing. But he noted there has never been a documented case of *Vibrio* from eating Maryland shellfish. And the number of days when state beaches are closed to swimming because of bacteria in the water has fallen by half since 2006.

Dr. Thaddeus Graczyk, an associate professor at Johns Hopkins' public health school, said that while the state generally does "an excellent job" of checking beach waters, he believes it should test certain beaches for *Cryptosporidium*, which has caused fatal illness in some people with weakened immune systems.

Eskin defended the state's beach monitoring, saying it is done in accordance with standards set by the EPA. He acknowledged that testing could be done more quickly - it now takes laboratories two days to analyze the water samples.

Health risks should decline, Eskin added, as new state rules take effect to limit pollution from storm water runoff and to require upgrades of septic tanks near the water.

One significant source of fecal contamination not regulated, though, is pet waste, which contributed 69 percent of the *E. coli* bacteria found in the Severn near Voith's home, according to a state study. About 40 percent of dog owners in the area admitted they generally did not pick up after their animals, the study said.

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