

R.I. restricts nitrogen pollution, puts pressure on Mass.

By Ray Henry, Associated Press Writer | July 22, 2006

WARWICK, R.I. --Conimicut Point juts into Narragansett Bay, a small beach where locals can swim, boat and fish. The breeze offers relief on a hot day -- except when the stench from rotting algae nauseates passers-by.

Some scientists blame nitrogen pollution from wastewater treatment plants for the cesspool-like stink.

"It smells like deviled eggs in old work boots," complained David Tramontano, 22, whose family lives beside Conimicut but drives 26 miles south to swim in cleaner water. "It's disgusting."

Jolted when millions of fish suddenly died in the bay three years ago, Rhode Island regulators are moving to dramatically cut back the amount of nitrogen that wastewater treatment plants are allowed to release into state waterways. They're threatening to raise a stink of their own until Massachusetts agrees to similar changes.

Getting the Bay State's cooperation is key because while Narragansett Bay forms the heart of Rhode Island, more than half of the watershed that feeds it winds through Massachusetts. Wastewater plants across the state line in Worcester and Attleboro discharge into that watershed, said W. Michael Sullivan, executive director of the Rhode Island Department of Environmental Management.

In 2004, Rhode Island lawmakers told the DEM to cut the amount of nitrogen flowing from Rhode Island wastewater plants in half by 2008. To do that, environmental officials have ordered sewage treatment plants in Rhode Island to reduce nitrogen emissions -- some to 5 parts per million, others to 8 parts per million.

By comparison, officials at one East Providence plant said its heaviest nitrogen emissions are around 12 parts per million.

Sullivan complains that there's no comprehensive regulation of nitrogen emissions in Massachusetts, and he wants the Bay State to take action.

"It's unconscionable that we should silently sit by and let them flush their nutrients into Narragansett Bay for us to deal with the consequences," he said.

Phone messages left with the Massachusetts Department of Environmental Protection and the U.S. Environmental Protection Agency were not returned.

In a written statement to The Associated Press, the Massachusetts DEP said it must study the levels of nitrogen in the watershed before it and federal authorities decide whether to place limits on treatment plants.

That worries environmental advocates like John Torgan of Save the Bay, a Rhode Island-based environmental group pushing for tighter nitrogen standards. Torgan said the delays are hurting the bay, and he wants Massachusetts to act now to rein in nitrogen emissions.

"What we're saying is, you know, it's reasonable and feasible based on the information we have today to go to a limit," Torgan said. "We want you to establish limits, period."

Earlier this month, Torgan used his boat to take University of Massachusetts researchers to the mouth of the Taunton River in Fall River, Mass., to test the water. Four of seven sites tested low for oxygen, a possible symptom of nitrogen pollution.

Nitrogen itself isn't harmful -- marine life couldn't survive without it.

Phytoplankton, such as algae, consume nitrogen. That plankton is eaten by larger creatures higher up on the food chain. But too much nitrogen causes too much plankton to grow, and that plankton strips oxygen from the water.

Floating on the surface, plankton keeps sunlight from reaching oxygen-producing plants below. Mats of plankton consume oxygen when they live, then use more as they decompose.

With less oxygen in the water, fish and other marine life can suffocate.

People notice the problem most often when tangles of plankton wash up on beaches like Conimicut and stink. The problem is worst during summer along coves sheltered from the tide. Rain can wash other chemicals into the bay that further fuel plankton growth.

Torgan said controlling nitrogen is the easiest way to break the cycle.

"Pollution is a key ingredient here," he said. "If we didn't put all this nitrogen into wastewater, all these conditions could conspire, (but) we wouldn't have a fish kill."

But Scott Nixon, a professor of oceanography at the University of Rhode Island, is skeptical that nitrogen alone caused millions of fish and other creatures to die in the bay on a single day in August 2003, an event he attributes more to tides and wind. He said abnormal amounts of nitrogen started flowing into Narragansett Bay a century ago with the installation of the first sewer systems.

"If nitrogen caused that fish kill, why is it the first big fish kill we had in the bay since the 1890s?" Nixon said. "We can't just get excited about that last fish kill and spend millions and millions of dollars."

Two Providence sewage treatment plants agreed last month to gradually reduce their summertime nitrogen emissions to five parts per million.

But two plants in Woonsocket and East Providence are appealing a DEM order to cut their nitrogen emissions to 8 parts per million. They say buying equipment to do that could cost millions of dollars.

Sullivan said he hopes Massachusetts also adopts restrictions.

"The bay reflects the consequences of everyone's actions," he said. ■