

WORRY OVER LI'S WATERWAYS

Study: Forge, Peconic rivers lead in water-quality problems

Algal blooms can deprive marine life of needed oxygen. Above, a rust tide algal bloom can be seen looking north from Little Peconic Bay in Noyack on Aug. 25.

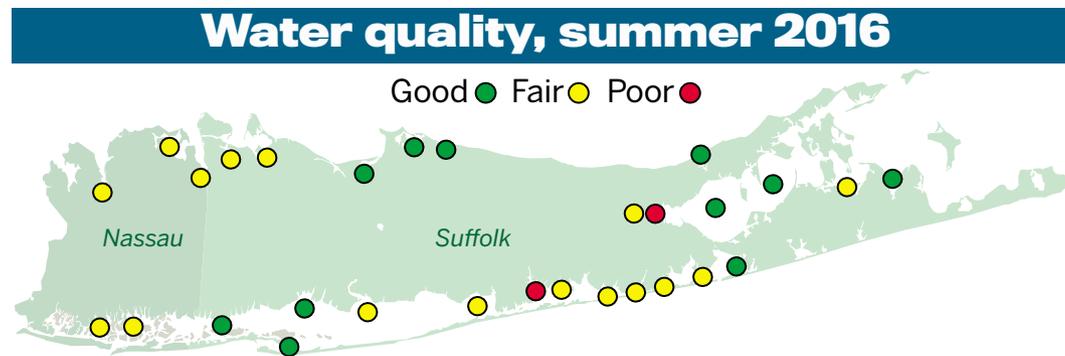
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A Stony Brook University research team analyzed the summerlong water quality in 29 of Long Island's inlets, bays and estuaries, finding the most chronic problems in the Forge and Peconic rivers, according to data released yesterday.

The laboratory took weekly water-quality samples in areas from Hempstead to East Hampton between Memorial Day and Labor Day weekends and measured the levels of dissolved oxygen, fecal coliform bacteria and harmful algal blooms, said Christopher Gobler, professor of marine science at Stony Brook University.

A key finding was that oxygen levels had fallen to zero at night in some bodies of water, including in the Forge and Peconic rivers in eastern Suffolk County, Gobler said. Without oxygen in the water, marine life dies.

"The big surprise is the oxygen levels are much worse than anticipated," he said. "A lot of people think the water quality is really bad closer to the city and when you get out east, things are



pretty good because it's nice and rural. That's not always the case."

He said a lack of oxygen could lead to fish kills in which thousands of fish die. Such die-offs occurred this year in Centerport and last year in the Peconic River.

The poor water quality in many areas stems mainly from nitrogen concentrations in runoff and groundwater, experts said. Contamination from old septic systems, lawn fertilizer and agricultural operations has frequently led to algal blooms that deprive marine life of oxygen and have closed waterways to shellfishing and swimming in the past few years.

"Everything from low-dissolved oxygen, poor water clarity, algal blooms — these are all symptoms of degraded incoming water quality from the land," said Chris Clapp, a marine scientist at The Nature Conservancy in Cold Spring Harbor and in East Hampton.

Environmental advocates said Gobler's research shows that septic systems are harming Long Island's waterways.

"The data simply verifies that we have substantive water quality challenges," said Adrienne Esposito, executive director of the Farmingdale-based Citizens Campaign for the Envi-

ronment. "The good news is, we can reverse this trend."

Suffolk County Executive Steve Bellone said the results of the study were "further confirmation of the enormous challenge we face, and why we've made water quality a top priority in the administration."

The Stony Brook analysis ranked the Forge River worst of the waterways studied for algae levels, while Shinnecock Inlet produced the least.

For dissolved oxygen levels, the Peconic River had the worst, often with no oxygen reported, while Shinnecock Inlet was the best of those areas studied.

Shinnecock Inlet also ranked best in terms of water clarity while Quantuck Bay between Westhampton Beach and Quogue ranked last. The Peconic River produced the highest levels of fecal coliform bacteria while Eastern Shinnecock Bay did not show any, according to Gobler's research.

Brookhaven Councilman Daniel Panico said the town has made progress in reducing nitrogen levels in the Forge River. In 2010, officials worked with the state Department of Environmental Conservation to shut down a duck farm that was responsible for about 25 percent of nitrogen polluting the Forge River. Panico said. The town also has purchased properties in sensitive areas, demolished homes, and rezoned properties in Mastic, Moriches and Center Moriches in an effort to preserve the land from being overdeveloped.

DOCUMENT
Read the study.
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