

Nantucket meeting to explore how to restore harbor water quality

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The state Department of Environmental Protection will hold a public meeting at Nantucket High School on Tuesday to get comments on a plan to restore water quality in Nantucket and Polpis harbors.

The draft plan was released Sept. 12, and is part of a six-year project to clean up 89 embayments along the southeastern Massachusetts shore.

The cleanup focuses on nitrogen, largely from septic systems, that acts like a fertilizer in saltwater estuaries, spurring rapid growth of algae.

These organisms reproduce rapidly and can out-compete other sea vegetation for light and oxygen, causing loss of habitat, and depleted animal and plant life.

It's anticipated southeastern Massachusetts towns will spend billions of dollars to comply with the federal Clean Water Act that mandates that communities reduce the flow of nitrogen into coastal waters.

If Nantucket was like most towns on the Cape, the rapid metamorphosis over the past 50 years from a forested and sparsely inhabited island to a relatively suburban landscape should have turned its pristine coastal waters murky with algae, erased its eelgrass beds, and, along with them, its shellfish and fish populations.

But, unlike the mainland, which relies primarily on individual septic systems, Nantucket has had a municipal sewer system since the 1890s. Sewer systems, which utilize wastewater treatment plants, emit just a fraction of the nitrogen that a conventional septic system does.

That means the island will be spending far less than its mainland compatriots to comply with the law.

"Right now, Nantucket Harbor is like a glass full of water. It's fine, but anything else dropped into it will push it over the edge," said Health Agent Richard Ray. "We don't want to do that."

Ray said the town was willing and able to achieve the nitrogen reductions of between 33 and 58 percent recommended by the state in the report.

Nantucket Harbor's main problem areas are the deeper parts of the harbor where organic matter had settled into sedimentary layers containing nitrogen. Keeping those areas well-flushed with currents that would keep the nitrogen from feeding algae blooms was one recommendation.

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Nitrogen reductions needed in Nantucket Harbor system

Head of Harbor: 57.4 percent

- Quaise Basin: 46.2 percent
- Town Basin: 32.6 percent
- Polpis Harbor: 38.1 percent

Source: Massachusetts Department of Environmental Protection

Tuesday meeting

Public meeting on draft plan to restore water quality in Nantucket Harbor is Tuesday from 6 to 8 p.m. at Nantucket High School.

Report available at: www.mass.gov/dep/water/resources/tmdls.htm. Scroll down to Islands Watershed.