

Cape Cod Waterways Face Pollution Crisis

Cape Cod Waters in Pollution Crisis



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ORLEANS, Mass. — Rising nitrogen levels are suffocating the vegetation and marine life in saltwater ponds and estuaries on Cape Cod, creating an environmental and infrastructure problem that, if left unchecked, will threaten the shellfishing industry, the tourist economy and the beaches that lure so many summer visitors.

More than 60 ponds and estuaries on the cape and a few elsewhere in the region have been choked by algae and seaweed. The culprit is nitrogen, much of it leaching out of septic system wastewater that runs through sandy soil into the estuaries. Faced with a federal mandate to fix their polluted waterways, Cape Cod towns have spent years creating plans to clean up the wastewater, largely through sewers and clustered septic systems.

So far, most of the efforts have been to no avail, stifled by disputes over science and over who should pay for such a sprawling and expensive public works project.

“This is the biggest environmental issue the cape has ever faced,” said Maggie Geist of the [Association to Preserve Cape Cod](#), a nonprofit environmental group. “And for a long time it’s been a hidden problem.”



A sign on Perch Pond warns of dangers of shellfishing there.
ERIK JACOBS FOR THE NEW YORK TIMES



The root of the problem lies in the popularity and unchecked growth of Cape Cod over the last 30 years. Towns chose not to install sewers when the government helped subsidize them in the 1960s and ’70s, fearing that it would lead to an influx of people. Newcomers arrived anyway and sprawled out, using individual septic systems to get rid of waste.

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victim of our own geology.”

Without remediation, excess nitrogen could decimate shellfish beds and lead to widespread summer fish kills as algae, warm temperatures and cloud cover stifle oxygen in coastal waters, say officials who have examined the problem. Bays will be overtaken with seaweed that rots in the summer, a blow to property values and an environmental concern.

Here in Orleans, wastewater has been a divisive subject for years. Some residents say the town should put in place a \$150 million plan that was drafted two years ago and approved at a town meeting, while others are calling for additional review before it is financed by taxpayers.

The problem is not always immediately apparent. From a distance, one saltwater pond here looks pristine, the summer sun bouncing off its placid waters and boats bobbing in the salt breeze.

“It’s deceiving,” said Gussie McKusick, who lives alongside the pond. “It looks beautiful, but it’s all dead underneath.”

Septic systems deposit wastewater, a mixture of urine and water, into a leach field. Because the cape’s soil is so sandy and porous, the wastewater eventually is deposited into bays. Even after septic systems are removed, wastewater already in the soil will still be leaking.

The nitrogen problem is most acute in protected bays and saltwater ponds on the cape’s southern side. The tides coming from Nantucket Sound are not high and forceful enough to flush out the nitrogen, which causes algae and seaweed to flourish, choking out oxygen needed by vegetative and marine species.



CLOSED TO SHELLFISHING FOR YEARS BECAUSE OF ELEVATED NITROGEN LEVELS, SAID ROBERT GRIFFIN JR., THE ASSISTANT HARBOR MASTER.

The algae and seaweed kill eelgrass, where prized bay scallops grow. Those scallops are gone from the ponds in Falmouth.

In August, the problem is sometimes smelled before it is seen. The algae bakes under the hot sun, creating a foul odor that may already be driving tourists away. Paul Niedzwiecki, the executive director of the Cape Cod Commission, a regional land use agency, said he had heard anecdotally that some people had left because of the smell.

Officials and towns are also girding for the possibility of a lawsuit from an environmental group that is exploring its options under the Clean Water Act.

“A lawsuit would be intended to bring all of the relevant decision makers and authorities who should be part of the solution to the table,” said Christopher Kilian of the [Conservation Law Foundation](#).

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Towns on Cape Cod, which are fiercely independent and often fight regionalization, must try to work together on solutions, even though town wastewater plans can vary.

Residents are also fighting among themselves, with some wanting the entire town to pay for a plan and others insisting that only households that get sewers pay for them.

In Barnstable, voters will decide in November whether to finance \$265 million in new sewers with a tax increase. And in Falmouth, officials are still trying to determine who will pay for their 50-year, \$650 million plan. The largest project the town has ever undertaken was an \$80 million expansion of its high school.

“This is the most massive potential public works project the town has ever seen, and clearly it’s something the town is uneasy about, and it gets challenged,” said Peter Boyer, a member of the Falmouth wastewater commission. “It’s a classic case, and it’s inevitable.”

Here in Orleans, Ms. McKusick waded through her pond, slimy seaweed sticking to her legs and feeling like wet lettuce under her feet.

“It’s not a question of if, it’s a question of when,” Ms. McKusick said of fixing the wastewater problem. “And how much blood is on the walls when we’re finished.”