Shellfishermen, DEM officials at odds over increasing nitrogen discharges in bay to feed quahogs

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Quahogs after being harvested are covered in mud, but the shells still display a beautiful rich hue. (1997 file photo by NOAA Restoration Center, Tom and Louise Kane)

Where have the quahogs gone?

Since last September, a joint legislative study commission has been trying to answer that question and find solutions to ensure Rhode Island's official state shell doesn't completely disappear from Narragansett Bay.

At its peak in 1959, nearly 5 million pounds of quahogs were harvested from Rhode Island waters, according to a March 2024 report by the Rhode Island Department of Environmental Management (DEM). Over the past three years, that number was less than 500,000 pounds.

"The findings and recommendations that are going to come from this commission are going to steer us on that path where we are going to replenish that bay," Co-Chair Rep. Joe Solomon, a Warwick Democrat, said during the commission's meeting Tuesday.

But department officials and the Rhode Island Shellfisherman's Association are at odds over recommendations to achieve a final long-term solution to bring back the population of the iconic hard-shelled clam.

Shellfishermen want the state to permit additional nitrogen discharges from wastewater treatment facilities during the winter. Jim Boyd, one of four shellfishermen who serve on the commission, said doing so would help fertilize more phytoplankton that feed quahogs.

"Without phytoplankton, there's no food for the quahogs," Boyd said in an interview after the meeting.

The suggestion was based on a presentation University of Rhode Island ecologist Candace Ann Oviatt gave the commission last November, Boyd told Rhode Island Current. Oviatt noted the water in Narragansett Bay has become cleaner because of efforts to reduce nitrogen.

But the state's effort to keep its waters clean has decreased the nutrients quahogs feed on, resulting in fewer clams, or some in poor condition and dying.

Oviatt suggested adding nitrogen discharges during the winter because she found it would not result in hypoxia — low oxygen conditions — in the summer.

"And that's clearly what the department is concerned about — understandably so," Boyd said in an interview.

Boyd told the commission climate change is a major factor in the quahog's decline, but it's too late for the state to act on those fixes because of lasting greenhouse gas emissions.

"If we ceased all of those emissions today, there's enough greenhouse gasses in the atmosphere ... that we will have warming continuous for another century," he said. "There is one thing, however, that we can change. That's our management of nitrogen."



Rhode Island Shellfisherman's Association President Michael McGiveney, left, speaks on Tuesday, April 2, 2024, at a a joint legislative commission meeting about how to save the state's quahog population. Next to him, shellfishermen Jim Boyd and Mark Johnson. (Christopher Shea/Rhode Island Current)

But permitting additional nitrogen discharges raises a lot of regulatory red flags, said David Borkman, an environmental scientist with the state. He told the commission the U.S. Environmental Protection Agency (EPA) would likely challenge any decision by the state that would allow more nitrogen to enter Narragansett Bay

DEM has the delegated authority from the EPA to allow for nitrogen discharges, but the federal agency has final review to permit.

"And if they don't agree that it will protect all aspects of water quality, then they will override and we'll lose that delegated power," Borkman told Rhode Island Current.

If the state can get a peer-reviewed study showing that there won't be any harm to the environment, the department might be open to allowing nitrogen discharges during the winter.

"Before you make that next jump, it has to be more than a suggestion," Borkman said in an interview. "This has to be thoroughly, extremely documented."

Other long-term solutions which garnered far less discussion from the commission included expanding state and federally funded monitoring programs, reviewing current harvesting regulations and something the state did after the 1989 World Prodigy oil spill — creating spawning sanctuaries that helped shellfish recover.

But Commissioner Jody King, a quahogger from Warwick, thought those potential fixes wouldn't help current shellfishermen.

"We're not going to see the fruition in our lifetime of what we're trying to do," he said. "So what can be done for us now?"

In the short-term, there was consensus around ramping up the state-funded Shellfish Transplant Program — which involves moving shellfish like quahogs from waters that are closed off due to pollution into areas where commercial harvesting is permitted.

It's a practice that has occurred annually in Rhode Island since the late 1970s, with funding provided by fines levied on municipal Wastewater Treatment Facilities.

"Even us old guys could benefit from it," said Rhode Island Shellfisherman's Association President Michael McGiveney.

A final report is expected to come out later in the month and will be reviewed by the joint commission at its final meeting scheduled for Tuesday, April 30. Commissioner Michael Jarbeau, a Narragansett Bay Keeper, was not present at Tuesday's meeting.

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