

So, water we really going to do?

Posted by [Beth Young](#) • [October 10, 2013](#) •

Twenty five million pounds of nitrogen from human waste made their way to the bays through Suffolk County's groundwater last year, says Stony Brook researcher Christopher Gobler, causing ever more frequent and long-lasting algae blooms that are causing serious harm to our marine ecosystem.

Dr. Gobler is just one member of a new consortium of concerned scientists, environmentalists, public policy activists and educators who have joined forces this year to form the [Long Island Clean Water Partnership](#) to advocate for the health of both the island's groundwater and its bays.



The Peconic Bay, pictured here in South Jamesport, is full of water. This is proving to be a problem as Long Island's nitrate-enriched groundwater seeps out into the bay, causing algae blooms and hurting salt marsh and eelgrass habitat.

The partnership held a forum with the appetizing title of "Toxic Tides and Pesticides and Sewage, Oh My!" at Farmingdale State College Monday night, urging public participation in a cause that is gaining momentum island-wide.

But many of the people who came to talk had distinctly East End roots.

Dr. Christopher Gobler, who does much of his work out of Stony Brook's School of Marine and Atmospheric Sciences center at the Southampton campus, has been studying algae blooms in the bays for more than a decade. He shared this frightening image of this season's water quality issues in Long Island bays:



Dr. Gobler said the map actually needs to be updated because the rust tide in the Peconic Bay spread as far east as East Hampton this summer.

He said that, along most of the south shore bays and in the Peconic Bay along the South Fork, most of the nitrogen has been proven to come from human waste in groundwater, but on the North Fork, a significant amount still comes from agricultural fertilizers.

Not only does nitrogen lead to the growth of algae blooms, it also causes the roots of salt marsh grasses to get lazy and not grow as strong as they would have if the nitrogen wasn't so readily available. The salt marsh grasses then begin to break off into the water.

“They call this the calving of the salt marsh,” said Dr. Gobler. “If you end up putting lots of nitrogen into the salt marsh, why would the marsh need to develop roots?”

He said nitrogen also causes the growth of seaweed and other macroalgae on the surface of the water, which shades out eelgrass beds, another important habitat for the bays’ shellfish and young finfish.

Suffolk County has about 350,000 individual septic systems and cesspools. As a longtime rural county, it historically hadn’t had to face the large populations that in the past necessitated sewer systems in western Long Island. The Suffolk County Health Department has begun to approve alternative on-site denitrification treatment, but Bob DeLuca of the Group for the East End said at the forum that the work is going slowly, in part due to budget cuts.

He said the health department needs to finish its [Comprehensive Water Resources Management Plan](#), which has been in draft form for more than two years.

“If we’re going to make changes, we need to have a document that’s complete,” he said. “It’s very important that we get the agencies on board, as well as the academics, as well as the community, if we want to get anything done.”

The Nature Conservancy’s government policy director, Kevin McDonald, likened the problem with Suffolk County’s cesspools to the automobile industry’s initial reluctance to put catalytic converters on cars 40 years ago. He said it would take engineers, creative financing and government support to fix Suffolk County’s septic mess.

“My son is an engineer. He said there’s no doubt all that stuff can be done. You just have to want to do it,” said Mr. McDonald. “We have to acknowledge there’s a problem, we have to do things differently, then we have to have a discussion with community: What does that mean. What does it look like?”

Richard Amper of the Long Island Pine Barrens Society agreed.

“If 350,000 septic systems are not working, somebody is thinking in the back of their mind, ‘I want to be the solution,’” he said. “There’s every reason to believe that technology will respond.”

Mr. Amper added that in a recent survey, “60 percent of Long Islanders didn’t care where their water came from or where it went.”

“Nobody would let you flush away on the Croton Reservoir,” he said.

Adrienne Esposito, whose group, [Citizens Campaign for the Environment](#), helped organize the forum, issued a challenge to participants.

“How can we make a difference in the next two years to really transform what we see happening, which is degradation of groundwater and degradation of coastal waters and marine habitat,” she said. “We know that is not acceptable to us, we know that is not a sustainable way to live on Long Island and we know that things have to change.”

The full livestream of the conference is available [here](#)