



Making the Most of East Lyme's Water

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Niantic Watershed program urges conservation

It's a resource we might take for granted, or at least move to the bottom of our worry list. Living along the Sound, coming off of a wet summer with more than enough rain, who's concerned about water supplies?

About two-thirds of East Lyme and Niantic residents, customers of the East Lyme Water System, are still under mandatory water conservation restrictions. From 9 a.m. on Fridays through noon on Mondays, they are not to water their lawns, wash vehicles, buildings or structures, sidewalks, or driveways, or fill or clean out swimming or wading pools. Restaurants are to serve water only if customers ask for it. Details are posted on the town's Web site, www.eltownhall.com.



"Our daily summer shortfall has averaged 400,000 gallons per day," says East Lyme First Selectman Paul Formica. "Our water supply is regulated by the stream flows that go nearby our wells. When they get below a trigger height, the Connecticut Department of Environmental Protection forces us to shut off our main producing wells. Those wells generate 900,000 gallons of water per day at a time of the year when our community goes from 19,000 people, on average, year-round to 35,000 people."

The town has added 200,000 gallons per day since last summer by upgrading pumps and equipment at two of its six wells, he said. The roughly \$1 million cost has been paid for by utility water users and existing operating funds, and did not bring an increase to the town budget. It also expects to tap into currently unused wells at Darrow Pond for another 150,000 gallons per day, but only on weekends.

The town is faced with two water issues: quantity and quality. It takes long-term planning and resources to develop the supplies, Formica notes; conservation and pollution reduction efforts by residents and the commercial community, requiring changes in human nature and practices, needs to have a larger role.

East Lyme's water situation isn't unique, says Pat Young, of the Eastern Connecticut Conservation District (ECCD), and the solution isn't to go it alone. Portions of East Lyme, Waterford, Salem, and Montville are in the Niantic River Watershed, which covers 31.3 miles. Fairy Lake, Horse Pond, Barnes Reservoir, Bougue Brook Reservoir, Lake Konomac, Latimer Brook, Oil Mill Brook, and Stoney Brook are part of it.

The Niantic River is known for its rich history of harvesting scallops and clams, but the estuary is classified as "impaired" by the Connecticut DEP for not currently meeting state water quality standards because of the observed degradation of aquatic life and shellfish harvesting.

The four towns are participants in the Niantic River Watershed Protection Plan. Called for by the federal Clean Water Act, funded in part by DEP and prepared by the ECCD, the plan brings together the elected leaders of the towns with sources of technical support and information to collectively address water issues.

A comprehensive watershed management plan was compiled in 2006, after involving the town leaders and many stakeholders. For the past 18 months, Young has been coordinator for the watershed, a one-day per week assignment.

In March 2009, a 34-page guided summary of the plan was completed. It outlines goals, as well as steps each of the communities are doing or will take to improve water quality.

The plan also calls for establishing a comprehensive long-term water quality monitoring program for the watershed, which Young said was selected for a multi-community approach because it is a collection of multiple "non-point source" polluters, not a handful of single-point sources of discharge, such as large heavy industry or manufacturing.

Nitrogen and bacteria are the two greatest water quality concerns for the river, according to the plan. Polluted runoff accounts for about half of the nitrogen inputs.

Each of the four towns has indicated that it will use the plan's detailed resource mapping and conservation and development recommendations in town land use planning. East Lyme's recently adopted stormwater regulations, emphasizing low-impact development methods, reflect the plan's recommendations. In the past year, the town also has set up the Commission for the Conservation of Natural Resources, assigning it more of an advisory role on environmental matters while maintaining the regulatory role of the Inland Wetlands Agency.

The plan points out that there is a direct relationship between impervious surfaces—which increase the volume of water run-off instead of recapture and filtration into the ground—and degradation of water quality.

Formica said East Lyme's Hole in the Wall Beach Demonstration Project in Niantic, which uses a public parking lot, plantings, and a storm sewer collection system to show how water can be slowed down and filtered before rushing into the Sound, is an example of combining education, outreach, and functions of a town facility.

Recent swimming and shellfish bans on the Niantic River, in response to foul smells and water discoloration caused by "anoxic" or low oxygen conditions, reminded residents and vacationers of the consequences of algae blooms fed by excess nitrogen and other pollution run-off, Young said. Monitoring shows that aquatic species are shifting from desirable scallops and winter flounder to green crabs and grubby, more tolerant to polluted waters.

Much of the watershed protection plan outlines public outreach plans by each of the communities to change public attitudes and practices.

"We can all be doing something to reduce pollution and improve water quality," Young said. "It isn't a matter of 'It's my neighbor, it's the big business down the road.'"

Boaters on the Niantic River can use the free sewage pump-out boat run by Save-the-River, Save-the-Hills, a nonprofit grassroots organization formed to abate and prevent pollution in the river. In August 2003, Connecticut's near shore waters were declared a No Discharge Area, which makes dumping of human waste, including treated boat sewage, illegal.

Formica says the regional approach by the watershed communities is supported by a larger 20-community council of governments that he and the other towns participate in.

"The next step is to have more of a regional interconnection with New London. We need a grid, a connection of water from town to town, source to source. That's the 20-year plan," he said. "The good news is that the Council of Governments, the Connecticut Conference of Municipalities, are all working together toward that end."