

# Triangle officials examine how much development is impacting Jordan Lake

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Two boats carried locally elected officials on a tour of Jordan Lake on Wednesday to see the effects of urbanization on the body of water which is a regional drinking water source.

## SEAFORTH

Fran DiGiano loves to show off a water meter cover he found during a clean up four years ago at Jordan Lake. It's stamped Greensboro.

DiGiano, a volunteer with Clean Jordan Lake, doesn't know how the heavy chunk of plastic made it to the lake, but at some point it came down the Haw River with other trash and debris, he said. The river's headwaters are northwest of Greensboro, and it ultimately feeds Jordan Lake.

On Wednesday, DiGiano showed off his "treasure" to elected officials from Chatham, Orange, Durham and Alamance counties – all part of the lake watershed.

"It's really a beautiful resource that is worthy of protection," he told them. "They also got a chance to see what the impact of urbanization is having on the lake."

Jordan Lake, which was created in the 1980s, serves many purposes, including flood control, recreation and a drinking-water source. Now environmental pressures on the lake and watershed are growing. There are 27 municipalities and 10 counties in the watershed.

Development won't reach the shores of Jordan Lake, but the effects of growth are seeping in.

More people are moving to the Triangle and surrounding counties daily. Twenty more per day in Durham. About 60 per day in Wake County. And in the long term, Chatham County may see an additional 60,000 residents with the growth of Chatham Park during the next 25 years.

"People want to live here," said Diana Hines, chair of the Chatham County Board of Commissioners. "The question is not only to serve those who are coming but those who are already here. The only thing we can do is preserve as much as we can and enhance."

Jordan Lake is Cary's primary drinking-water supply, but for now it is only a backup source for the Durham city and Orange Water and Sewer Authority systems. Both have their own, separate reservoirs.

The tour was more of a fact-finding outing than a way to resolve the water-quality threats from upstream, DiGiano said.

Representatives from four town boards and two county boards saw the intake that supplies Cary. At one stop on the lake, DiGiano pointed to an area that he said often becomes cluttered with trash and debris. And finally there was stop some four miles away at the dam and spillway.

Chapel Hill Mayor Pam Hemminger, working through the Triangle J Council of Governments, has led efforts to bring local governing bodies together to protect Jordan Lake. The group is called the Jordan Lake One Water Association. It also includes Guilford County, where the water meter cover originated some 60 miles away.

"It's more about the whole watershed ecosystem," Hemminger said. "It's drinking water for Cary and Apex and Durham and other parts of other communities, too. But it's also recreational. It's also a wildlife corridor. There are a lot of amenities for people.

"But there are some problems. It's got some nutrient loading. It's not a natural made lake, it's a man-made lake, and it's shallow. It's got things in it that are inherent to being man-made."

The state wrote the Jordan Lake Nutrient Management Strategy, or the Jordan Lake Rules, in 2009 to address pollution. The rules, which have yet to be implemented, govern storm-water management in new and existing developments, lay out options for offsetting nutrient loads, establish buffer rules, regulate wastewater discharge and establish agriculture and fertilizer management practices.

Nutrient loading happens when storm-water runoff washes nitrogen-rich compounds downstream. These compounds come from fertilizer and other sources. When too much is spread on lawns or fields, the excess is not absorbed into the soil and can be carried away by storm water.

The runoff also can contain other chemicals that do not occur naturally.

In January, Duke scientists found small but measurable amounts of nine "perfluorinated chemicals" in water from Jordan Lake and in Cary, Chapel Hill and Durham tap water. The chemicals, which are related to GenX, were in the low parts per trillion range and well below the standards of 70 ppt set by the Environmental Protection Agency.

GenX, which is used in the production of nonstick cookware and stain-resistant textiles, made the news last year after it was discovered in higher levels in the Cape Fear River, which is the drinking water source for Fayetteville. The nearby Chemours chemical plant was found to be discharging GenX-tainted water without a permit, according to state environmental regulators.

Summer algae blooms on Jordan Lake present other problems. One, it costs more to treat water with substantial amounts of algae to make it drinkable. But it also can present a potential health hazard to recreational lake users.

The state has twice tried to address the algae issue.

One plan, which cost \$1 million, deployed solar-powered stirring units called “SolarBees” in the lake. That test, which ended in 2016, showed the devices delivered no measurable improvement. Another proposal to dump a chemical into the lake was nixed in December by the Army Corps of Engineers, which has final jurisdiction over the body of water.

Clean Jordan Lake paid for Wednesday’s tour with a grant it received from the Syngenta Community Grant Program, DiGiano said. Another tour is planned for other county and town leaders in the watershed.

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