

# Experts: Boost LI water reuse

Say recycling can cut nitrogen flow, aid source aquifer

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A plan to reuse treated wastewater to irrigate golf courses, sod farms and nurseries has the potential for “revolutionizing” water conservation on Long Island by reducing pumping from the region’s sole source aquifer while avoiding the discharge of nitrogen into coastal waters, a team of environmental experts said Wednesday.

A report released by the Sea-tuck Environmental Association, based in Islip, and the Greentree Foundation of Manhasset, two environmental advocacy groups, lays out an ambitious road map for how the region could solve its water quality and quantity issues.

The plan calls for redirecting highly treated wastewater from sewage treatment plants to water-dependent facilities such as golf courses, rather than discharging the nitrogen-heavy pollutants into the ocean or coastal waterways.

The strategy could also help restore Long Island’s water table levels, which have steadily declined because of high rates of pumping, officials said Wednesday at the Great Neck Water Pollution Control District, which already utilizes recycled water to wash down equipment. The district has also expressed interest in supplying water to nearby golf courses and North Shore University Hospital. “New water reuse projects have the potential of revolutionizing the way that we conserve water and protecting our natural environment, making Long Island safer, not only for the millions of people who live here now, but our children and their descendants as well,” said Christopher Murphy, superintendent of the district and a member of the advisory group that helped craft the 107-page report.

About 2.6 billion gallons of water are reused daily in the United States, representing 7%

## WHAT TO KNOW

■ A team of environmental experts released a report Wednesday calling for a significant expansion of water recycling on Long Island at locations such as golf courses, sod farms, universities and nurseries.

■ Reusing water has the potential to reduce harmful nitrogen in coastal waterways while restoring the region’s aquifer resources, which has decreased in many places because of high rates of pumping.

■ Since 2016, the Riverhead Water Treatment Plant has redirected recycled water away from Peconic Bay and to the county-owned Indian Island Golf Course.

of all wastewater generated nationwide, said John Turner, a conservation policy advocate with Seatuck.

On Long Island, where 2.7 million residents receive their water from a groundwater aquifer, the figure is less than 1%, Turner said. Nations such as Israel reuse about 90% of their wastewater, he said.

“It is essential we be thoughtful stewards of our drinking water supply,” Turner said, adding that water reuse “is a thoughtful idea to whose time, we believe, has come.”

Among the only substantive water reuse projects operating on Long Island is in Riverhead, where the town’s sewage treatment plant redirects wastewater from the Peconic River to the county-owned Indian Island Golf Course.

The project prevents one ton of nitrogen from entering the river and keeps about 63 million gallons of water in the aquifer, said Michael Reichel, superintendent of Riverhead’s

sewer district.

“This is a success story that shouldn’t end in Riverhead,” Reichel said.

Timothy Benedict, president of the Long Island Golf Course Superintendents Association, said the group supports the initiative. “Water reuse has been demonstrated to be a success at golf facilities and communities in New York State and across the country,” he said.

The report identifies about 200 potential projects suitable for water recycling, including golf courses, farms, nurseries, commercial businesses, treatment plants, parks, universities, greenhouses, stadiums and country clubs.

But the projects are not without cost. The groups identified 17 top irrigation reuse projects — 16 were golf courses — based on factors such as distance to a treatment plant, effect on water management, pumping concerns and potential nitrogen reduction. These projects range in annual capital costs from \$4.4 million to \$28 million, officials said.

Stephen Hadjiyane, an associate partner in the wastewater engineering division at Cameron Engineering, said the next steps include working with the state to set guidelines for water reuse and convening a water recycling work group that would help pursue state and federal grants to fund the projects.

“Once we identify the will, we need to do additional engineering studies to evaluate each project in more detail,” Hadjiyane said.

Funding for the projects, officials said, could be available through the federal Infrastructure Investment and Jobs Act and the state’s recently passed \$4.2 billion Clean Water, Clean Air, Green Jobs Bond Act.

Adrienne Esposito, executive director of the Farmingdale-based Citizens Campaign for the Environment, said the water recycling projects will actually save public money.

“It makes no sense to use treated drinking water to water our lawns; water our golf courses and water our school campuses,” she said. “That treated water costs a lot of money.”

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