

# Long-Term Plan to Tackle Wastewater

In Phase 1, county aims to eliminate 10,000 aging cesspools and septic systems

BY CHRISTOPHER WALSH

Suffolk County officials have unveiled a \$4 billion, 50-year wastewater plan to rid the county of environmentally unfriendly cesspools and outmoded septic systems.

The county's groundwater and surface-water quality have been plagued by nitrogen over the past several decades. Nitrogen from cesspools and septic systems has been the most widespread and least well addressed of the region's pollutants, according to the county.

Excess nitrogen has caused harmful algal blooms and fish kills and contributed to the collapse of the county's hard clam populations, which once supported a multimillion-dollar industry that accounted for more than 6,000 jobs.

On Tuesday, the County Health Department released its Subwatersheds Wastewater Plan, a blueprint for transitioning from cesspools and septic systems, the primary source of nitrogen pollution that has fouled local waterways. If the recommendations are fully enacted,

the plan projects to reverse deteriorating water quality within a decade.

The four-part program would begin with an effort to replace about 10,000 systems, about half with technology upgrades and half by tying them to existing sewers.

In the second phase, which would begin in about five years, as many as 177,000 more cesspools and septic systems in high priority areas would be eliminated. Initial funding would come from federal and state grants.

The plan is the first science-based study to delineate more than 190 watershed areas in Suffolk and establish goals for reducing nitrogen in each. It establishes priority areas where the replacement of cesspools and septic systems will have the most immediate benefit. It includes recommendations to reduce reliance on cesspools and septic systems over time by replacing them with new, state-of-the-art nitrogen-reducing equipment, or, where practical, connecting residences to sewer systems.

The plan sets a goal of investing \$2.7

billion through 2068. Most nitrogen reduction would be accomplished through replacement of cesspools with individual advanced on-site systems that remove more than 70 percent of nitrogen from wastewater. Both the county and state offer grants that cover most of the cost for property owners who voluntarily replace their cesspool or septic system with a new system.

The cesspool elimination efforts would be broken into four phases and increased over time as the capacity of the industry increases and additional funding becomes available.

In Phase 1, spanning from the present to 2023, an estimated 10,000 cesspools and septic systems would be eliminated through replacement of 5,000 cesspools, with new, advanced systems, and connection of 5,000 residences along river corridors on the South Shore to sewers as part of the Suffolk County Coastal Resiliency Initiative, announced in 2014 in the wake of Superstorm Sandy in 2012.

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Several hundred additional parcels in downtown business districts would be connected to sewers. Phase 1 would be funded through existing grant sources, including more than \$440 million in federal and state funding that the county has been awarded plus an anticipated \$95 million in grants to upgrade antiquated septic systems. The plan also recommends that policymakers amend the county sanitary code to require the use of new technology in new construction in 2020.

The second phase, beginning in 2024, would require the elimination of 177,000 cesspools and septic systems in near-shore and high-priority areas over a 30-year period at an estimated cost of \$1.9 billion.

The plan recommends that policymakers implement a requirement that cesspools and septic systems be replaced with the new technology when properties change hands, or when existing cesspools and septic systems fail. The plan estimates that such requirements could increase the number of cesspools eliminated from 1,000 to more than 5,000 per year.

The third phase calls for upgrades in all other priority areas between 2054 and 2068, at a cost of \$730 million. Upgrades in the remaining parts of the county would be completed in a fourth phase, at an estimated cost of \$1.3 billion. Through 2068, the total anticipated price tag would reach \$4 billion.

In addition to recommendations for wastewater management, the plan provides the foundation for strategies to reduce nitrogen from non-wastewater sources such as fertilizer, and includes recommendations for addressing other compounds, such as contaminants of emerging concern, phosphorous, and pathogens.

A new wastewater plan was a primary recommendation of two studies: the Smarter Cities Challenge report, prepared by a team from IBM in 2014, and the Suffolk Comprehensive Water Resources Management Plan, completed in 2015. Preparation of the plan began in September 2016 and included staff from regulatory agencies, scientists, ac-

ademic institutions, and other experts.

Stakeholders including scientists and academics, business leaders, environmentalists, labor organizations, and the building trades support the plan, according to county officials. The State Department of Environmental Conservation, under the Long Island Nitrogen Action Plan, and the State Department of State, under the South Shore Estuary Program, provided funding for it.

Approximately 74 percent of the county's houses and businesses are not connected to sewers, and rely instead on antiquated on-site wastewater disposal systems. Studies show that about 70 percent of the nitrogen that reaches Suffolk bays comes from approximately 360,000 cesspools and septic systems, according to the county.

After 1973, new systems were required to include both septic tanks and leaching pools. The plan noted, however, that more than 253,000 of the systems were built before 1973, and are simply cesspools, which are essentially injection wells that direct contaminants into groundwater. The groundwater in the county is part of a sole-source aquifer that provides the region's drinking water, but is also the primary source of nitrogen contamination to streams and bays.

The plan is the subject of environmental review by the county's Council on Environmental Quality, including the development of a generic environmental impact statement. The council's determination that the draft environmental impact statement is complete, expected in the middle of this month, will trigger a 30-day comment period and the scheduling of two public hear-

ings on the plan. Those interested can access information regarding the plan at [reclaimourwater.info](http://reclaimourwater.info).

James L. Tomarken, the county health commissioner, said in a statement on Tuesday that "Scientists have warned that continued reliance on primitive wastewater disposal systems is a mounting threat to both our environment and our economy. Now, for the first time, there is a long-term plan to diminish nitrogen pollution and put Suffolk County on a path to cleaner, healthier water resources."

Christopher Gobler of Stony Brook University's School of Marine and Atmospheric Sciences, who oversees water-quality sampling in waterways across the South Fork, said in a statement that, "The strength of this plan is the incredibly strong and sound science on which it is based. The county has taken what may be the largest and most comprehensive water quality data set generated by any county in the country and has generated a robust, comprehensive, and forward-thinking plan to restore Suffolk county's most vital resource: its drinking water and surface waters. While I have spent my career documenting the degradation of Long Island's fisheries and aquatic habitats, it is inspiring to finally see a plan designed and implemented that will reverse course on decades of negative trajectories. The citizens of Suffolk County will reap the benefits of this plan for decades to come."