

Rerouting sewage a pipe dream?

Concerns in Bay Park have revived decades-old talk to move outfall pipe out of bay and into ocean

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Every day, Nassau County's Bay Park sewage plant discharges some 58 million gallons of treated effluent to Reynolds Channel amid a classic South Shore backdrop of marsh islands, migratory birds and lonely bay houses.

It's the only place on Long Island where a major sewer pipe empties into an enclosed bay - the other big South Shore plants discharge to the ocean - and Bay Park operates with fewer restrictions than the North Shore plants that flow to Long Island Sound.

But in recent months, concerns about the sewage's impact on water quality and marine life along with a much-debated proposal to consolidate nearby sewage plants have pushed Bay Park pollution to center stage. They've also revived a 30-year-old discussion to extend the plant's outfall pipe two miles to the ocean.

"We don't want to see what happened in Jamaica Bay happen to our bay," said Rob Weltner, head of the Freeport nonprofit Operation Splash, which works to clean local waterways. Scientists blame sewage, pollution and development for the loss of dozens of acres of Jamaica Bay marshland.

Extending the Bay Park pipe to the Atlantic was first recommended in a 1978 landmark water-quality study by the Nassau-Suffolk Regional Planning Board.

But for three decades, the idea was relegated to the back burner by lack of interest, money and political will.

New interest in ocean pipe

That's changing now. The state Department of Environmental Conservation has agreed to study the bay's water quality, which could lead to better sewage treatment and maybe even an ocean pipe. Meanwhile, after prodding from residents and environmental groups, Nassau has cautiously taken up the extension idea.

Bay Park was built in East Rockaway on the cusp of the postwar suburban boom. Then, treated sewage was dumped right off the bulkhead, north of the marsh islands and narrow channels in western Hempstead Bay. In the 1960s, as a condition of more than doubling the plant's capacity,

Nassau moved the Bay Park outfall pipe two miles south to its current location in Reynolds Channel, west of the Long Beach rail bridge.

Beside Bay Park, four other plants also have outfall pipes in the bay. Together they add another 7 million to 8 million gallons of sewage each day.

Tides carry it all to the ocean, the DEC says, though the agency doesn't know how long it takes to flush sewage from the bay. With local high tides ranging from 3 to 5 feet, however, "that's a fairly significant tidal exchange for a bay that is relatively shallow," said William Hastback of the agency's Bureau of Marine Resources.

The other two large Island facilities, Cedar Creek in Wantagh and Bergen Point in West Babylon, pump effluent south of the barrier islands to the ocean, where sewage dilutes more quickly than in a bay. Both these plants opened in the 1970s: Nassau showed no interest then in extending Bay Park's outfall pipe, said Lee Koppelman, former head of the Long Island Regional Planning Board and the 1978 study's project director.

Troubled waters

State environmental officials consider western Hempstead Bay "impaired."

Shellfish harvesting is prohibited west of the Meadowbrook Parkway because of high fecal coliform levels that the DEC says stem from storm-water runoff from the communities to the north and recreational boating. The levels also occasionally close beaches at Hewlett Point and Island Park, and summertime algal blooms can discourage swimming and boating. Conditions are better to the east, though large swaths remain closed to shellfishing.

Environmental advocates say that decades of effluent have clouded the western bays, killing off fish, and that nitrogen has triggered algae blooms that smother life on the bay bottoms. They want Nassau to improve treatment at Bay Park and ultimately extend the pipe out to sea.

"It doesn't take a rocket scientist to know that millions of gallons of sewage a day is going to diminish the water quality of the bay," said Adrienne Esposito, of Citizens Campaign for the Environment in Farmingdale.

Storm-water runoff isn't the only reason shellfishing is prohibited in western Hempstead Bay. Hastback said that harvesting is prohibited within a certain distance of outfall pipes in case plants fail and discharge untreated sewage. But DEC staff doesn't know the size of the sewage safety zone in western Hempstead Bay - the entire area was already closed to shellfishing when the agency came into being. It remains closed because of high coliform levels.

The regional planning board study found that in 1976, treatment plants discharged 16,000 pounds of nitrogen there each day - the largest load released to any Long Island bay. But since the 1970s, little more has been done to monitor these nitrogen levels or explore how exactly sewage may affect the bay's ecology. Meanwhile, millions have been spent on water-quality problems in Long Island Sound and Jamaica Bay.

Hempstead Bay, however, has yet to experience the dramatic declines that ring alarm bells, such as the summer fish kills in western Long Island Sound that happened after widespread algal blooms.

"This bay doesn't get the attention because it's not anoxic [lacking oxygen]," said DEC regional water manager William Spitz. The agency listed nitrogen, which causes such plant growth, as a suspected pollutant there in 2006. Still, he added, "No scientist could look you in the eye and say they're certain that nitrogen is a problem."

\$200M for ocean outfall

Nassau officials estimate that extending the pipe would cost \$200 million. They're reluctant to spend that kind of money unless the DEC says they must.

But DEC officials say nothing prevents the county from acting. "The benefits of an ocean outfall are clear," said regional director Peter Scully. "There is no reason Nassau County couldn't start taking steps today to shift to an ocean outfall."

That said, County Executive Thomas Suozzi's administration appears to be the first to take even a remote interest in the idea since it was first proposed 30 years ago.

Nassau officials said the outfall pipe is an option under consideration in the county's master sewage plan, scheduled to be completed this summer. The first part of the plan looks at saving money on treatment plant upgrades by diverting effluent from smaller municipal facilities to Bay Park and Cedar Creek. Suozzi says the plan would help the environment because the county plants treat sewage more and have fewer permit violations than the older plants targeted for consolidation.

Earlier this year, the Nassau Legislature approved a takeover of three plants that would send about 2.5 million gallons of sewage per day from older plants in Lawrence and Cedarhurst - which discharge to tributaries of Hempstead and Jamaica bays, respectively - to Bay Park.

County officials also hope to sign on Long Beach, whose plant also sends an average of 5 million gallons per day to Reynolds Channel.

The plan has angered many residents near the Bay Park plant, who fear more sewage will increase odor and worsen pollution in the bay - charges Nassau officials deny.

"We need the [ocean] outfall pipe before you start to bring more sewage into one place," resident Connie Petrucci, 46, said last week at a heated public meeting on the proposal. "Bay Park alone is enough for the legislature to propose an outfall pipe today."

Environmental advocates, meanwhile, back the consolidation. They say it would make it easier to secure federal money for treatment upgrades at Bay Park, and, eventually, to extend the pipe to the ocean.

Grant money for sewage projects has all but dried up since the outfall pipe recommendation first was made in 1978. Back then, about 75 percent of municipal sewage construction costs were picked up by the state or federal governments, said Howard Golub of the Interstate Environmental Commission, which enforces water quality regulations in adjacent waters of New York, New Jersey and Connecticut. These days, most assistance comes as low-interest government loans or through direct borrowing.

Working with Esposito and Weltner, Nassau officials have started lobbying state and federal lawmakers in hopes of securing special grants to help upgrade treatment at Bay Park and Cedar Creek - with an eye to possible expansion of the Bay Park outfall.

Another option

Still, earlier this year Nassau public works Commissioner Raymond Ribeiro said it didn't make sense to commit to an ocean pipe until researchers know how much Bay Park actually contributes to the estuary's water quality problems. It could be as effective, and cheaper, to simply upgrade the plant to reduce nitrogen in the wastewater.

Given the estimated cost of the pipe extension, "it would be reasonable to look at nitrogen removal," said James Tripp, general counsel for the Environmental Defense Fund and a member of the 1978 study's citizen advisory committee. Tripp also noted that over time, sewage dumped in the ocean can also cause similar problems, such as algal blooms and low oxygen levels. "An assumption was that the ocean was kind of an infinite sink for nitrogen. That's not true," Tripp said.

DEC to launch new study

In December, Scully announced that the DEC would undertake a detailed study of western Hempstead Bay to identify the sources of suspected contaminants such as nitrogen. The analysis will also establish how much pollution the estuary can handle while still remaining healthy - what scientists call the total maximum daily load.

Such calculations for Long Island Sound have led to mandated improvements over the last decade for sewage treatment facilities along the North Shore. Those upgrades are expected to cost \$114 million.

Environmental advocates had been pushing for a daily load analysis for western Hempstead Bay and others along the South Shore since 2001, when the South Shore Estuary Reserve management plan was created. DEC officials expect the analysis to begin late this year or next.

Marine life

Despite degradation from sewage and stormwater runoff, life still stirs in Hempstead Bay. Among the inhabitants there:

BIRDS

Herons, egrets and ibises nest on marsh islands, as do terns and gulls. Ducks and geese flying south stop by to rest and feed from shallow waters and tidal flats, which also draw migratory shorebirds such as piping plovers, red knots and American oystercatchers.

FISH

Menhaden and winter flounder spawn in the sandy shallows. Young bluefish, striped bass and summer flounder use the bays as nurseries. Soft clams, bay scallops and ribbed mussels have been reported here, although shellfishing is mostly prohibited because of water-quality concerns.

OTHER ANIMALS

Harbor seals frequent these waters in the winter. Summer brings sightings of bottlenosed dolphins and minke whales, and sometimes juvenile Atlantic ridley and loggerhead sea turtles.

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SOURCE: U.S. FISH AND WILDLIFE SERVICE