

# **Long Island Nitrogen Action Plan (LINAP)**

## **Public Comments**

Prepared: November 20, 2015

The Department of Environmental Conservation (Department) and the Long Island Regional Planning Council (Council) are working with stakeholders to develop an action plan to reduce the level of nitrogen in the waters around Long Island.

The Department has received comments from stakeholders. This document is a compilation of their comments. If the Department receives more comments, then this document will be updated. The comments are organized in reverse chronological order.

## Reconstruction of the Bay Park Sewage Treatment Plant & Outfall Pipe

Assistant Commissioner Tierney:

*Newsday's* "Call for nitrogen removal at Nassau sewage plant" [March 8, 2014, attached to this email] reported the Bay Park sewage treatment plant "... is permitted to send 70 million gallons per day of effluent into area waters but averages about 58 million gallons per day." \* The article also reported the EPA stated: "Moving the discharge will ease problems in the Western Bays, but the excess nitrogen could reduce oxygen levels in the ocean, lead to algal blooms and other water quality problems ...". The article also reported: "The agency supports the ocean outfall but is concerned about low-oxygen levels in the ocean and plans to sample this summer in the area where the [ocean outfall] pipe may be located, EPA Regional Administrator Judith Enck wrote in a January [2014] letter to the state Department of Environmental Conservation" [also attached to this email], stressing to its Commissioner, Joe Martens: "Relocating the outfall to the ocean will significantly improve water quality in the Western Bays, and we strongly support this alternative. However, we must ensure that we do not transfer a water quality problem from one area to another and therefore recommend that New York proceed with evaluating and planning for an ocean outfall with maximum nutrient removal at the plant." Lastly, the article reported: "The agency wants nitrogen to be part of early discussions."

In pursuing the above, on 6/9/15 the Point Lookout Civic Association (the "PLCA") requested the EPA disclose the nitrogen limit(s) it would permit Bay Park to discharge to the ocean [attached to this email]. The Agency did not provide a quantitative answer in its 7/10/15 response [also attached]; but disclosed the plant's current SPDES permit expires 7/31/16; the Agency was still collecting data; and it would have to complete studies before arriving at a numerical answer.  
**Q1a:** If Bay Park is permitted to discharge to the ocean, what nitrogen limits will DEC permit?

**Q1b:** If Bay Park is NOT permitted to discharge to the ocean, what nitrogen limits will DEC permit for discharge to the Western Bays?

Please confirm, or if incorrect amend, that the *Western Bays Total Maximum Daily Load* (TMDL) study is still ongoing.

**Q1c:** And, if correct, when will the study be completed and published for public review?

**Q1d:** Or, if not correct, why will it not be completed?

**Issue Ia:** Given Nassau County residents consume more potable water than most other U.S. residents, there is high probability Bay Park's influent lode will far exceed the 55 million gallons a day (mgd) engineering assumption the County and its sewage system operator/manager, United Water (UW), have adopted for reconstructing the plant. This figure may be quite understated; and, hence, Bay Park's basic design similarly unfounded. If reconstructed on this basis – with a maximum processing capacity of only 75mgd – the facility could easily be underbuilt, and by a wide margin; resulting in its effluent exceeding prospective nitrogen limits, whether the plant discharges to the Bays or the ocean.

**Issue Ib:** Statistics and respective calculations were sent to UW in March 2015 for comment. They included assumptions, ostensibly adopted by NCDPW and UW for Bay Park planning and design, and alternatives, posed in opposition, which differ quite considerably. Both are contrasted on the Data Sheet below. For easy comparison, UW's responses are written in a different *font*.



\* The PLCA was informed the TMDL's 50mgd claim was not the result of SoMAS' independent research; rather, the School was afforded this information by Nassau County. Given the study's potential impact on the County's finances and DPW at the time, and now on UW and the Bay Park reconstruction, this result must be audited and recomputed by either the DEC or an independent outside source.

\*\* Please confirm, or if incorrect amend, the term "user" applies ONLY to residences, and not to public, commercial or industrial facilities.

\*\*\* Note, the 140mgd statistic has been quoted by multiple sources, most recently by H2M Architects and Engineers at the LI Water Conference's *LI Water Quality Symposium* on 10/22/15 (albeit, this figure certainly includes outdoor and warm weather use.) However, it is unclear whether this statistic pertains ONLY to resident-users or if it includes non-resident, commercial and industrial users as well.)

# It is unclear what UW means by "70% indoor use." Perhaps this is the percentage UW uses, instead of 90% adopted for the calculations performed in item C. above.

**Principal Concern & Summary:** To ensure Bay Park's engineering and reconstruction will be adequate, viable and effective enough to accommodate the plant's full influent lode, then the sources and accuracy of the above data, assumptions and respective calculations must be audited and recomputed by either the DEC or an independent outside source. If designed and reconstructed based on unrealistically low parameters, then Bay Park could easily be underbuilt and unable to manage the current influent lode, and additional lodes sure to be pumped via Long Beach. And if this occurs, then nothing will have been "accomplished" other than to have moved the plant's undertreated and substandard effluent from the Bays to the ocean.

**Issue II:** Western Bay stakeholders are optimistic United Water will effectuate requisite nitrogen removal at Bay Park. However, focusing exclusively on nitrogen incorrectly narrows the scope of the plant's overall discharge problem. Comparable standards for removing other significant contaminants – such as pathogens, toxins, and pharmaceuticals (and perhaps even radioactive waste from improper medical disposal) – must be enacted as well. Unfortunately, these other contaminants are being entirely overlooked by government, environmental groups and other stakeholders, none of which are seeking, never mind advancing, necessary treatment and removal. This is a most serious omission. ##

**Q5:** And if this omission is NOT proactively addressed by DEC (and/or the EPA) prior to Bay Park's reconstruction and (possible) OOP installation, then by whom and when? And, if not rectified in advance, then, as is cautioned above, stakeholders will indeed be accomplishing nothing more than relocating these contaminants from the Bays to the ocean.

United Water's clinical response identifies the source of most Nassau County surface water problem(s):

*"There are currently no regulatory requirements or standards; this comment is best posed to agencies with regulatory oversight (USEPA & NYSDEC)."*

**##** Note, to date, no assurances have been provided that these other contaminants would either be treated or removed from the reconstructed plant's effluent. Also, up until the LI Nitrogen Action Plan Meeting in Nassau on 10/14/15, every inquiry the PLCA made in this regard had gone unanswered. Citizens Campaign for the Environment's mention of these contaminants at the Meeting was the first time any stakeholder or environmental group had ever advocated for their removal from Bay Park's effluent (irrespective of whether it is ultimately discharged to the Bays or the ocean).

**Issue III:** An unaccounted for parameter requiring evaluation surfaced in *Newsday's* "A Threat to Fish" [February 21, 2015, also attached to this email]. The article discloses the E. F. Barrett plant withdraws 294mgd from the Western Bays during its operations. Since the TMDL has neither considered nor assessed the impact of this massive water exchange in the Bays each day, this should be investigated, as it could affect the study's results and force amendment to its conclusions, particularly to its "sloshing" conclusion(s), perhaps substantially.

**Issue IV:** Cautioning against inadequate oversight is also warranted. Well over a decade ago, Nassau County's Cedar Creek STP was deemed a "blue-ribbon" plant. Since that time, this plant and its treatment has deteriorated significantly; and have never fully recovered. Therefore, related questions are:

**Q6a:** Post-construction, what measures will DEC take to prevent the new Bay Park plant, and its effluent quality, from similarly deteriorating?

**Q6b:** Alternatively stated: Post-construction, what measures will DEC take to assure Bay Park's discharge is continuously and vigilantly monitored and requisite technical upgrades are routinely installed at the facility?

**Issue V:** Local commercial plumbers aver numerous illegal and, hence, unaccounted for sewer pipe hook-ups exist in south Nassau County. Mostly are non-residential; and run from strip malls or other types of commercial and industrial facilities into Bay Park (and Cedar Creek). The PLCA verbally informed NCDPW of this impropriety pre-*Sandy* and likewise informed UW within the last 12 months. Both the Commissioner and UW acknowledged the problem exists; however, there is no evidence either has made any effort to address or correct it.

**Q7:** Is the additional influent originating from these sources being addressed, or at least accounted for, in the STP's engineering and reconstruction assumptions?

**Conclusion:** Therefore, the five Issues posed and explored above – in particular those addressing the assumptions and calculations supporting Bay Park's engineering, design and reconstruction – must be (re)examined; and, if uncertainty persists or contradictions surface, they must be completely resolved as well, and certainly prior to approving an ocean outfall pipe or issuing the plant its SPEDS permits.

Respectfully submitted,

Gerald A. Ottavino  
October 28, 2015  
P.O. Box 409  
Point Lookout, NY 11569  
(516) 270-5127 (c); (516) 431-7984 (o)

## Appendix/Ancillary OpEd

### The Bay Park Outfall Pipe

The SoMAS portion of the *Western Bays TMDL* – which, to my knowledge, has not been completed – evinces Bay Park canNOT discharge to the Bays any longer. Also, the *Google Earth(?)* screen Dr. Gobler exhibited during his PowerPoint presentation at the *Long Island Nitrogen Action Plan* forum in Nassau County on 10/14/15 demonstrated the N.Y. Bight is already deeply affected by nutrient contamination (and most probably by multiple other contaminants as well). Therefore, given: (a) the combined populations of NYC, NJ and Nassau County; (b) the inadequate standards regulating their discharge; and (c) the feeble enforcement thereof, I conclude it's impossible to discharge massive amounts of sewage effluent into any local water body without inflicting significant harm on any one of them. So, in the absence of very high-level (and expensive) technology, no matter where the Bay Park outfall pipe ends, its discharge is going to significantly harm one waterbody or another. In an indirect way, CCE's Executive Director, Adrienne Esposito, confirmed this when she averred: "The solution to pollution is NO longer dilution." And this includes the ocean.

Therefore, my current positions are:

**A.** I have no preference where the outfall pipe ultimately ends. Nassau County DPW and/or United Water **must provide** the highest possible wastewater treatment to effectuate the highest possible quality effluent, and with respect to all contaminants, not just nutrients. (As a related aside, it is my opinion that: Although nitrogen reduction is indeed critical, the contaminant is being overly focused upon because it is Suffolk's greatest water problem; and Suffolk is totally driving LI's water and eco-conscience right now. Reduction in other contaminant levels, such as pathogens, toxins and pharmaceuticals, must be effectuated as well.)

**B.** The DEC (and EPA) **must provide**: (a) the most proactive, diligent and vigilant inspections of WWTP effluent; and (b) the strictest possible enforcement of far more stricter NPDES and SPDES standards, and for all contaminants, not just nutrients. Without such standards, diligent inspections and vigilant enforcement, NC surface waters will suffer greatly and continue to degrade at accelerating rates, as out-of-sight will certainly become more and more out-of-mind.

Lastly, ocean outfall or not, it is imperative DEC expedite completion of the TMDL study and publish its results; replete with directives demanding the most rigorous discharge limits possible, in particular, when issuing SPDES permits for discharge to the Bays.

### Groundwater Recharge

Under optimal conditions, I would advocate using high-grade purified STP effluent to recharge NC groundwater. "On paper," such recharge sounds like the ideal answer to many of the County's drinking water quantity problem(s); BUT, is it? I believe the answer is a strong no! Why? Because history evinces requisite standards are rarely met, never mind the ones needed for such recharge. Even if NC could (re)construct a Bay Park plant to provide tertiary treatment for all contaminants, this could easily end up opening *Pandora's Box*. There are three "fatal" flaws:

First, no guarantees exist that NC STP maintenance and upgrades will be pursued diligently enough, or its treatment and discharge levels will remain high enough, to assure the recharge will remain unwaveringly pure and SAFE; and that the recharge will neither adversely affect the aquifer system nor likewise degrade NC's drinking water quality in any way.

Second, there are no guarantees DEC (and/or the EPA) will provide the resolute and dogged inspections necessary to likewise assure the recharge will neither adversely affect the aquifer system nor likewise degrade NC's drinking water quality in any way.

Third, there are no guarantees the USGS can provide to assure the system will not be harmed in any way.

Finally, the salient question and challenge to everyone looking for the optimal STP-surface-groundwater solution is: When defined, where's the funding going to come from to effectuate it? Sadly, I have NO answer for this; and, if it doesn't come from either NYS or the federal government, I strongly suspect neither does Nassau County.

GAO – 10/28/15

## Call for nitrogen removal at Nassau sewage plant

Updated March 8, 2014 8:43 PM

By EMILY C. DOOLEY [emily.dooley@newsday.com](mailto:emily.dooley@newsday.com)



*Shown are digester tanks at the Bay Park Sewage Treatment Plant in East Rockaway. At right is a 60-foot-high gas sphere on March 9, 2011. Photo Credit: Kevin P. Coughlin*

Federal authorities are pushing for nitrogen removal to be a priority as Nassau County plans for an ocean outfall pipe that would transport treated effluent from Bay Park Sewage Treatment plant out into the ocean.

The facility, which serves about 40 percent of Nassau County, was knocked offline during superstorm Sandy. The state has already secured \$810 million of federal funding for improvements to upgrade the facility and prepare it to withstand a 500-year storm.

A second push is now ongoing to secure about \$750 million to create an ocean outfall pipe and a system to remove nitrogen from treated wastewater before it is dumped into the Atlantic Ocean.

"Nitrogen removal remains a major focus of the county's plans as we repair and improve the plant," County Executive Ed Mangano said.

Bay Park currently releases discharge into Reynolds Channel, which is part of the Western Bays and has long had nutrient problems. The plant accounts for about 70 percent of all nitrogen found in the area, which is on a state list of impaired waters, according to an EPA fact sheet.

The East Rockaway facility is permitted to send 70 million gallons per day of effluent into area waters but averages about 58 million gallons per day.

Moving the discharge will ease problems in the Western Bays, but the excess nitrogen could reduce oxygen levels in the ocean, lead to algal blooms and other water quality problems, the U.S. Environmental Protection Agency says.

The agency supports the ocean outfall but is concerned about low-oxygen levels in the ocean and plans to sample this summer in the area where the pipe may be located, EPA Regional Administrator Judith Enck wrote in a January letter to the state Department of Environmental Conservation.

"Relocating the outfall to the ocean will significantly improve water quality in the Western Bays, and we strongly support this alternative," Enck said in the letter to DEC Commissioner Joe Martens. "However, we must ensure that we do not transfer a water quality problem from one area to another and therefore recommend that New York proceed with evaluating and planning for an ocean outfall with maximum nutrient removal at the plant."

The agency wants nitrogen to be part of early discussions.

Christine Pritchard, a spokeswoman for Gov. Andrew M. Cuomo, said the state's first priority is repairing the plant and making it resilient. The governor supports the outfall pipe project, and an assessment of nitrogen needs could proceed concurrently with work upgrading the facility.

"Given Nassau County's support for nitrogen treatment, coupled with an ocean outfall, the state is interested in working with them, EPA and other partners to analyze nitrogen limits and determine what treatments are necessary and would be effective," Pritchard said in a statement.

Environmental groups have long pushed for the outfall pipe and say nitrogen removal is key. "It is our strong position that denitrification is needed for an ocean outfall pipe," Citizens Campaign for the Environment executive director Adrienne Esposito said. "We can't create another dead zone in the ocean."

Sen. Charles Schumer also supports nitrogen removal and his office said funding through federal community development block grants and an EPA revolving loan fund for wastewater projects could apply.

"Nitrogen removal, combined with an ocean outfall pipe, is an important piece of the Bay Park puzzle, and is vital to improving the health of the waterways within and off the coast of Long Island," Schumer said.

The nitrogen issue facing the county is twofold -- how to reduce now what is being put into Reynolds Channel and determining at what level to treat the nutrient when the ocean outfall is operating.

DEC is undergoing a review process of the Western Bays to adhere to Clean Water Act laws and state regulations. The agency has not set a date for when the review will be complete but "we expect further limits on the amount of nitrogen will be imposed," spokesman Pete Constantakes said.

### **Finding the funding**

Federal rules stipulate in most cases that emergency Sandy aid can be used for repairs but not upgrades to facilities. So the funds cannot be applied to nitrogen-removal upgrades at the plant because the county did not treat for the nutrient before the storm and no regulations limiting release are in effect, Nassau's Deputy County Executive Rob Walker said.

But a pilot program to reduce nitrogen tested last year was successful and officials hope to implement it throughout the system this year. That and other improvements funded by the county should reduce the amount of nitrogen put into the channel by one-third, said Joe Davenport, chief sanitary engineer for the county Department of Public Works.

Planning for the ocean outfall is hampered because EPA has not established what the ocean nitrogen regulations would be. That issue is under review, though EPA is working with the state and county.

The county estimate for nitrogen removal is about \$150 million, though it will depend on federal standards.

"It's impossible to create a design plan without knowing the numbers," Walker said "We could do it and miss standards. Then you're actually wasting money."

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 2  
290 BROADWAY  
NEW YORK, NY 10007-1866

**JAN 16 2014**

Hon. Joseph Martens  
Commissioner  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, New York 12233

Dear Commissioner Martens:

I am writing regarding the relocation of the Bay Park Sewage Treatment Plant outfall, which currently discharges to Reynolds Channel in the Western Bays of Long Island. Nitrogen loading from the Bay Park Sewage Treatment Plant is a significant source of nitrogen to the Western Bays, portions of which are impaired due to nitrogen inputs. Relocating the outfall to the ocean will significantly improve water quality in the Western Bays, and we strongly support this alternative. However, we must ensure that we do not transfer a water quality problem from one area to another, and therefore recommend that New York proceed with evaluating and planning for an ocean outfall, with maximum nutrient removal at the plant.

Through the New York State Department of Environmental Conservation's (NYSDEC) participation in the New York –New Jersey Harbor & Estuary Program, you may be familiar with previous monitoring and modeling work the Estuary Program conducted, which indicates that portions of the New York Bight exceed New York State's marine dissolved oxygen standard. The entire New York Bight, as you know, extends along the Atlantic Ocean from Cape May, New Jersey to Montauk, New York. Low dissolved oxygen levels can adversely affect fish and shellfish health and habitat.

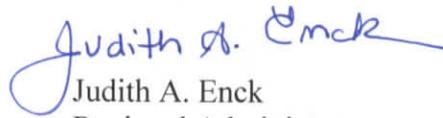
Specifically, EPA estimates that an ocean outfall 2.5 miles into the ocean would extend out to the second or third model grid cell in the Bight (see attached figure of System Wide Eutrophication Model). Under the 1988 hydrodynamic modeling conditions with 1994/95 loads, this is a borderline water quality attainment area for dissolved oxygen. Just to the south of the proposed outfall, modeled dissolved oxygen conditions decrease further. On the basis of field sampling conducted by EPA in the New York Bight in 2008 and 2009, EPA plans to conduct further dissolved oxygen sampling in August/September 2014, when dissolved oxygen levels are at their lowest, in order to obtain information on present conditions.

In sum, adding point source nutrient loadings from a relocated Bay Park STP outfall to that location has the potential to further lower dissolved oxygen levels in the Bight. Nutrient removal would lessen the impact on the receiving water quality. Any outfall would have to be constructed to meet applicable environmental criteria and standards. Design specifications and requirements would be determined after environmental studies and modeling are completed as part of the permitting and siting process.

To determine the appropriate level of treatment, a detailed assessment, which includes monitoring and modeling, should be conducted in the affected Bight area. Since facility planning and design of the Bay Park Sewage Treatment Plant is in the very early stages, it is critical that NYSDEC consider and plan for the most comprehensive design needed to protect water quality. In other words, any design measures that are planned to address resiliency should account for the level of nutrient removal needed at the facility. Because nutrient removal costs are for water quality purposes, it is an eligible cost within the Clean Water State Revolving Fund Program.

The Environmental Protection Agency, Region 2, shares NYSDEC's commitment to improving water quality in the Western Bays and protecting water quality in the New York Bight. We look forward to working with NYSDEC in evaluating and planning for the relocation of the Bay Park Sewage Treatment Plant outfall with additional nutrient removal.

Sincerely,

  
Judith A. Enck  
Regional Administrator

cc: Mr. Matthew Driscoll, New York State Environmental Facilities Corporation

Enclosure

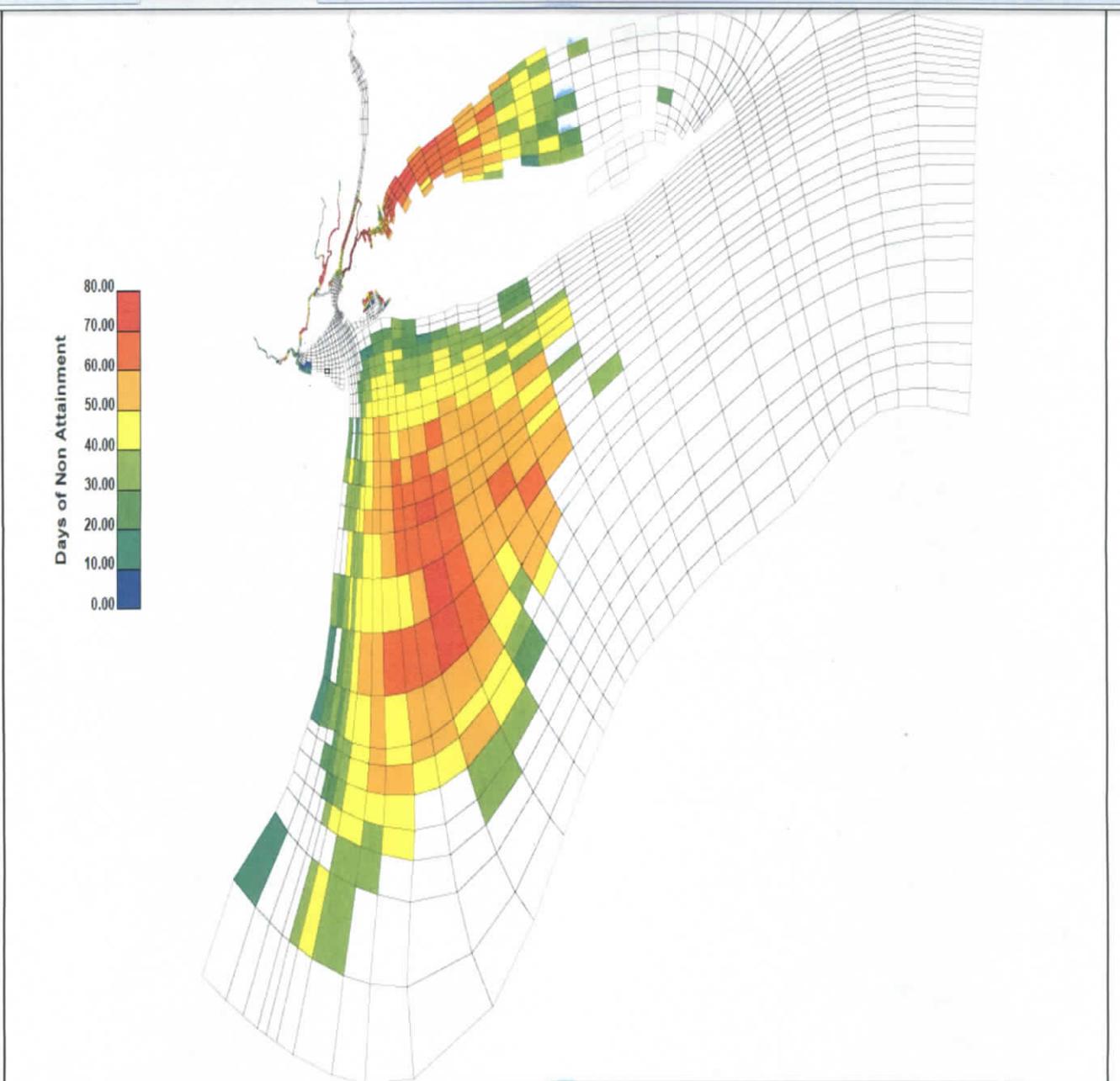


Figure E-3. Projected days of dissolved oxygen standards non-attainment under baseline conditions. Based on SWEM results and NYSDEC chronic dissolved oxygen standard for marine waters. 1988 hydrodynamics.

Source: Final Technical Report – Assessment of NY Bight Data Technical Memoranda. (HydroQual Inc., 2010) . <http://www.harborestuary.org/reports/nutrient/AssessmentOfNYBight0410.pdf>

June 9, 2015

CM-RRR 7004 2510 0001 1357 4482  
Judith Enck, Regional Administrator  
U.S. EPA, Region 2  
290 Broadway  
New York, NY 10007

**Re: Reconstruction of the Bay Park Sewage Treatment Plant**

Regional Administrator Enck:

*Newsday's* "**Call for nitrogen removal at Nassau sewage plant**" article [March 8, 2014, attached] reported the Bay Park sewage treatment plant "... is permitted to send 70 million gallons per day of effluent into area waters but averages about 58 million gallons per day." The article also reported the U.S. EPA stated: "Moving the discharge will ease problems in the Western Bays, but the excess nitrogen could reduce oxygen levels in the ocean, lead to algal blooms and other water quality problems ..." The article went on to report: "The agency [EPA] supports the ocean outfall but is concerned about low-oxygen levels in the ocean and plans to sample this summer in the area where the pipe may be located, EPA Regional Administrator Judith Enck wrote in a January [2014] letter to the state Department of Environmental Conservation," stressing to its Commissioner, Joe Martens: "Relocating the outfall [pipe] to the ocean will significantly improve water quality in the Western Bays, and we [the EPA] strongly support this alternative. **However, we must ensure that we do not transfer a water quality problem from one area to another and therefore recommend that New York proceed with evaluating and planning for an ocean outfall with maximum nutrient removal at the plant.**" Lastly, the article reported: "The agency wants nitrogen to be part of early discussions."

With reference to the above, the Point Lookout Civic Association (the "PLCA" or the "Civic") requests clarification on the following matter. Given the PLCA was informed the County intends to rebuild the Bay Park with its effluent being discharge to the ocean, **will the EPA permit a maximum allowable nutrient content level of 8ppm, when the respective Western Bays' maximum allowable level is expected to drop to only 2ppm?**

The PLCA also requests it be included in the nitrogen discussion(s) noted above; and allowed to opine accordingly, in particular, with respect to the items outlined on the enclosed Attachment as follows:

J. Enck  
Re: Reconstruction of the Bay Park STP

June 9, 2015  
Page 2 of 2

**Item I:** Given Nassau County is among the greatest consumers of potable water in the entire country, if not the greatest, the PLCA poses there is good probability the influent entering the Bay Park STP will far exceed the 55mgd average the County and United Water are using as a fundamental planning assumption to (re)construct the facility. If built on this basis – with a maximum processing capacity of 75mgd at peak times – the plant could easily be underbuilt, and by a wide margin; resulting in its prospective ocean outfall pipe (OOP) effecting “out-of-sight-out-of-mind” ocean dumping, if not upon initial operation, then when requisite maintenance or upgrades may be neglected at some time in the future.

Assumptions and calculations supporting these concerns are included as part of this Item I. Respective United Water figures, which are far less than the Civic’s, are also included; and written in a different *font*. The PLCA’s concern is the United Water figures may now be overly dated; and, hence, inaccurate and unreliable. **Therefore, the Civic requests the EPA perform its own due-diligence to proactively check the assumptions and calculations underlying the STP’s engineering prior to completing its reconstruction or issuing any related permits.**

As a reference point: Well over a decade ago, Nassau County’s Cedar Creek STP was deemed a “blue-ribbon” facility; having won several national awards to support this honor. Since that time, the facility has not been discharging the same quality effluent to the ocean. Therefore, the salient, and not so rhetorical, questions are: How long will it take for the new Bay Park plant to deteriorate; and for its ocean discharge to be downgraded to the same unacceptable level(s)? And, post-construction, will the Bay Park outfall pipe be monitored any more vigilantly or diligently than the grossly deficient way Cedar Creek is currently being monitored?

**Items II and II** outline other relevant topics of concern. In quick summary, there should be strict NPDES and SPDES for pollutants other than those limiting just nitrogen-based contaminants.

Respectfully,

Gerald A. Ottavino, Co-chair  
Environmental Committee  
(516) 270-5127 (cell)  
(516) 431-7984 (other)  
geraldottavino@aol.com

Encls. (*Newsday*’s March 8, 2015 article and PLCA Attachment)

cc: T. Kaminsky (NYS Assemblyman, AD 20, via H. Meyers in LB office)

**Call for nitrogen removal at Nassau sewage plant**

Updated March 8, 2014 8:43 PM

By EMILY C. DOOLEY, *Newsday*

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The facility, which serves about 40 percent of Nassau County, was knocked offline during superstorm Sandy. The state has already secured \$810 million of federal funding for improvements to upgrade the facility and prepare it to withstand a 500-year storm.

A second push is now ongoing to secure about \$750 million to create an ocean outfall pipe and a system to remove nitrogen from treated wastewater before it is dumped into the Atlantic Ocean.

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### **Finding the funding**

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But a pilot program to reduce nitrogen tested last year was successful and officials hope to implement it throughout the system this year. That and other improvements funded by the county should reduce the amount of nitrogen put into the channel by one-third, said Joe Davenport, chief sanitary engineer for the county Department of Public Works.

Planning for the ocean outfall is hampered because EPA has not established what the ocean nitrogen regulations would be. That issue is under review, though EPA is working with the state and county.

The county estimate for nitrogen removal is about \$150 million, though it will depend on federal standards. "It's impossible to create a design plan without knowing the numbers," Walker said "We could do it and miss standards. Then you're actually wasting money."

## ATTACHMENT

### Concerns regarding Bay Park's reconstruction and its proposed ocean outfall pipe are:

- I. The recent TMDL conclusion that Bay Park discharges only 50 million gallons a day (mgd) – now being quoted as 55 mgd – is being understated. \*

The basic “bookkeeping” problem that must be investigated is:

- a) **If** 550,000 County users \*\* send their wastewater to Bay Park; and each such user consumes an average of 140 gallons of water a day (Long Island's average; I have not been able to ascertain an average consumption rate pertaining specifically to south Nassau County), then on average 77,000,000 (550,000 x 140 = 77.0mgd) gallons of water are consumed by Bay Park users each day; and

*What is the source of the above cited daily average per person water use?*

<i>Average Daily Water Usage:</i>	<i>80-100 gpd (per USGS)</i>
<i>(per person)</i>	<i>100 gpd (USEPA; 70% indoor use)</i>
	<i>60-70 gpd (NYCDEP; indoor use)</i>

- b) **If** the factor attributable to producing wastewater for each user is, on average, 90% (which is quite conservative), and is applied to the above, then **Bay Park's influent should, on average, equal about 69.3 mgd** (77.0 mgd x 90%).

*The assumption of 90% of water returned to sewer system is high; but even using that percentage, flow to Bay Park STP would be:*

$$550,000 \times 90 \text{ gpd} = 49.5 \text{ MGD}$$

*Adding some minor percentage for I/I, our stated average daily flow of between 50 MGD to 55 MGD is reasonable.*

**Therefore, the salient question is: How can, on average, the 14,300,000 gallon daily difference between the STP's influent and its effluent be accounted for?**

**Overall concern:** If the Bay Park facility is designed and reconstructed based on unrealistically low parameters, it could easily be underbuilt and unable to handle an augmented future lode from an increased population, including Long Beach, the 5-towns, Point Lookout, and elsewhere. The accuracy of each and every parameter must be verified, **pre-design**, to ensure Bay Park's engineering and (re)construction will be adequate, viable & effective enough to accommodate all of south Nassau for decades to come.

Bay Park supervisory staff (UW or DPW) should have influent and effluent figures at their fingertips.

- \* The PLCA was informed by L. Swanson, the lead SoMAS scientist conducting the study, that the original 50mgd quote was not the product of his own research; but, rather, information actually provided him by Nassau County, which I deem to be a highly unreliable source at best.
- \*\* It is still unclear if the term “user” is restricted ONLY to residential homes, or if it encompasses public, commercial and industrial facilities as well.

- II. Western Bay advocates are hopeful United Water will thoroughly treat and remove massive amounts of nitrogen/nitrates/nutrients from the Bay Park effluent. However, ALL the ongoing and recent attention being attributed to the Bay Park OOP, focuses exclusively on nitrogen removal from the Western Bays for its justification. Not that nitrogen /nitrate/nutrient removal is unnecessary or undesired. Nitrogen removal is both necessary and required. This is not the issue.

The issue is the removal of significant other contaminants, such as pathogens, toxins, and pharmaceuticals (and possibly others, such as radioactive waste) from Bay Park's effluent. # Removal of these contaminants are equally necessary and required; but are being overlooked. Everyone involved knows it's all about the quality of the effluent being discharged into **any body of water**; but, unfortunately – ocean outfall pipe or no pipe – their removal isn't being addressed, never mind proactively advanced, by any Western Bays advocate. Simply, virtually no financial or engineering resources are being allocated toward effectuating this requisite. This is a serious omission. And, if NOT addressed now – prior to Bay Park reconstruction & OOP installation – then when and by whom? And, if not promptly addressed, then the OOP will indeed be relocating contaminants from the Bay to the ocean.

- # Note: I have been unable to get assurances these other contaminants would be targeted for treatment and removal from the reconstructed facility's prospective effluent. Any/All inquiries I have made in this regard have been completely ignored and remain likewise unanswered.

*There are currently no regulatory requirements or standards; this comment is best posed to agencies with regulatory oversight (USEPA & NYSDEC).*

- III. The PLCA was informed by commercial plumbers that there are myriad illegal and, hence, unaccounted for sewer pipe hook-ups in south Nassau County – mostly non-residential – running from strip malls, and other forms of commercial and industrial facilities, into Bay Park & Cedar Creek. The PLCA verbally informed NCDPW Commissioner Sheila Shah-Gavnoudias of this impropriety pre-Sandy. Commissioner Shah-Gavnoudias acknowledged the problem existed at that time; however, the Civic has not been informed of any effort the County has taken to correct it.

bcc: T. Doheny  
P. Franco  
T. Kearney  
C. Borecky  
F. Nicholas

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 2  
290 BROADWAY  
NEW YORK, NY 10007-1866

Mr. Gerald A. Ottavino, Co-Chair  
Environmental Committee  
Point Lookout Civic Association  
Post Office Box 391  
Point Lookout, New York 11569

Dear Mr. Ottavino:

Thank you for your letter of June 9, 2015 to U.S. Environmental Protection Agency Regional Administrator Judith Enck, in which you express the concerns of the Point Lookout Civic Association regarding the Bay Park Sewage Treatment Plant in East Rockaway, New York. Regional Administrator Enck has asked to me to reply to you directly. In your letter, you make several points regarding the relocation of the outfall pipe, which currently discharges to Reynolds Channel, to deeper ocean waters. You also make several points about the capacity of the facility and the nitrogen removal limits that should apply if the discharge remains in Reynolds Channel, as opposed to relocation to an ocean outfall. We share your concerns about this facility and will address the issues you raise in your letter below.

The current State Pollutant Discharge Elimination System (SPDES) Permit issued by the New York State Department of Environmental Conservation (NYSDEC) for the Bay Park Sewage Treatment Plant (SPDES No. NY0026450) expires on July 31, 2016. The EPA remains committed to ensuring that this facility complies with all Clean Water Act permitting requirements to protect water quality and designated waterbody use. We expect that the next renewal of this permit will include more stringent permit limits and requirements that are protective of New York State water quality standards for ammonia nitrogen, total nitrogen, and dissolved oxygen, and any other pollutants that must be addressed to adhere to state water quality standards. The EPA believes that these permit requirements should include schedules for implementation of denitrification treatment and relocation of the outfall to the ocean because the current discharge location in Reynolds Channel causes and contributes to violations of water quality standards not just in Reynolds Channel, but also in the Western Bays to which Reynolds Channel flows.

The EPA has begun an ambient water quality survey for summer and fall 2015 to collect data both in the area where a proposed ocean outfall would be located and within Reynolds Channel. This will cover a wider timeframe with more sampling events than were originally planned for summer 2014. The EPA also funded a study process through the State Revolving Fund program where Nassau County will conduct the design and permitting studies necessary for an ocean outfall. These studies, as well as the process of obtaining SPDES permit coverage for an ocean outfall, will include modeling of a proposed outfall to ensure that the proposal does not cause or contribute to water quality standard violations in the ocean waters. With respect to your concern regarding the capacity of the Bay Park facility and of future ocean outfall designs, the EPA expects the permitting and design process to accurately address whether the plant and proposed ocean outfall are properly designed for projected wastewater flow loading and treatment capacity at the Bay Park sewage treatment plant. The EPA will ensure that monitoring of the

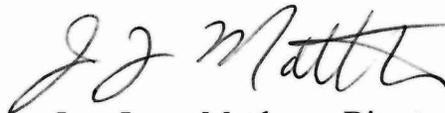
treatment performance of this facility and future ambient conditions following relocation of the outfall will be requirements of future SPDES permits and mixing zone validation studies.

We note your current concern with respect to illicit connections to the sewer system serving the Bay Park and Cedar Creek treatment plants. These connections would be a violation of the current SPDES permits for these facilities. If you know of specific connections, we would encourage you to report them to NYSDEC at 1-844-DEC-ECOS (1-844-332-3267) or <http://www.dec.ny.gov/regulations/67751.html>. Nassau County has also established a hotline for reporting illicit discharges to the storm sewer system at 516-571-7535 or <http://www.nassaucountyny.gov/1877/Illicit-Discharge-Hotline>.

It is our belief that relocation of the discharge, in addition to denitrification treatment to a level of 8 mg/L, is consistent with the Clean Water Act and a vast improvement for the environment over the current operating scenario at the Bay Park Sewage Treatment Plant. We agree with your statement that pollutants other than nitrogen based parameters, such as pathogens, toxins, pharmaceuticals and potential radioactive substances, must be addressed. The EPA, in its oversight role in the NPDES permitting program in New York State, is committed to ensuring that future permit limits are protective of all New York State water quality standards and Clean Water Act requirements.

In your letter, you also express the desire to be involved in the discussions related to this facility. We would encourage you to express your concerns to NYSDEC in advance of SPDES permit renewal and to follow the public participation process for the Western Bays Total Maximum Daily Load Analysis. If we hear of additional opportunities for public input, we would be glad to keep you informed. Should have any questions or wish to discuss this matter further, please contact Ms. Karen O'Brien of my staff at (212) 637-3717.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Joan Leary Matthews". The signature is fluid and cursive, with the first name "Joan" being particularly prominent.

Joan Leary Matthews, Director  
Clean Water Division

## TOP STORIES

# A THREAT TO FISH

■ **Two of LI's power plants** continue to hurt marine life

■ **Despite state policy,** they use antiquated systems

BY MARK HARRINGTON

mark.harrington@newsday.com

Two of Long Island's largest power plants continue to draw billions of gallons from local waterways annually, destroying billions of fish eggs, larvae and aquatic life despite a 4-year-old state policy to end the practice.

The state Department of Conservation in 2011 issued a policy requiring new and existing plants to use the "best available" cooling systems to reduce or eliminate massive water intakes and end the severe impacts on aquatic life. The DEC tied renewal of required pollution discharge permits to compliance with the order.

But Long Island's largest plants continue to operate with antiquated cooling systems after the state extended their permits. The extensions remain in place as the state and plant owner National Grid study the impact of the order.

Each day it operates, the National Grid power plant in Northport draws 939 million gallons of water from the Long Island Sound, the DEC says. The practice destroys an estimated 8.4 billion fish eggs and larvae a year and kills or injures up to 127,118 fish, which can get trapped in intake filters and other plant gear.



The National Grid power plant in Northport.

The E.F. Barrett plant in Island Park draws 294 million gallons a day from Western Bays during operation, destroying some 906 million fish eggs and up to 176,044 fish a year.

Elimination of the current once-through cooling systems, in use at Northport and Island Park, is the most effective way to reduce or stop fish mortality, the DEC said. It recommends closed-cycle systems that use up to 98 percent less water, which is discharged into cooling ponds and reused.

Two other National Grid plants in Glenwood Landing and Far Rockaway that had similar cooling systems have since been retired.

Critics say the review loophole has allowed National Grid to avoid complying with an environmentally critical order.



The E.F. Barrett plant in Island Park. Both plants use cooling systems that are cause for concern.

"Whether delays to date have resulted from bureaucratic foot dragging by DEC or National Grid's recalcitrance, the reality is that the . . . [Barrett] station is operating under a . . . permit that expired in 2009," environmental lawyer Reed Super, for Citizens Campaign for the Environment, wrote to the DEC.

In a statement, National Grid said it "has been working with and under the direction of the DEC to study impacts of the cooling water intake systems to aquatic life and propose technologies that could reduce those impacts."

The DEC didn't respond to a request for comment.

While those reports are being studied, National Grid said, its permits to operate the Northport and Barrett plants have been extended by the

DEC. "Both plants operate in compliance with permit conditions," the company said.

At its Port Jefferson plant, National Grid said "certain technologies and operational measures" were installed and enacted to comply with the state policy.

National Grid and partner NextEra have proposed a larger overhaul for the Island Park plant called repowering, a process that incorporates a modern cooling system that would meet the DEC standard. But after PSEG Long Island last year found LIPA has adequate power to last beyond 2020 without new power sources, the Barrett repowering has been stalled.

Urged by consultants to the plant developer NextEra Energy Resources, including former Sen. Alfonse D'Amato, many

local and state lawmakers are behind repowering.

"It would be far more efficient and beneficial to the environment, especially because it would no longer continue to draw water from the local channel," said Assemb. Todd Kaminsky (D-Long Beach).

But Citizens Campaign, which has advocated for more modern cooling systems, says it remains unclear a repowering of Barrett is necessary. In the interim, the group says, National Grid should work to reduce impacts on fish.

"The biggest question for us is the need," said Adrienne Esposito, Citizens Campaign executive director. "Is it . . . [a repowered plant] needed? In the meantime, they can do mitigation measures to decrease fish kills and impacts on the marine environment."



Suzanne Bryant shows her marriage license Thursday after she wed Sarah Goodfriend.

## Texas AG: Void same-sex marriage

The Associated Press

AUSTIN, Texas — Republican Texas Attorney General Ken Paxton said yesterday the state's gay marriage ban has been "needlessly cast in doubt" after a judge gave a lesbian Austin couple permission to tie the knot.

Paxton asked the Supreme Court of Texas to declare invalid the marriage license issued to Suzanne Bryant and Sarah Goodfriend. Paxton

warned of "legal chaos" if the court doesn't make clear that a judge wrongly allowed the couple to wed.

"A clear statement is necessary so that all judges within Texas understand that this Court or the U.S. Supreme Court will decide the constitutionality of Texas law," Paxton wrote.

Attorneys for the couple contend the marriage remains valid and said Paxton would need to sue the clerk who issued the license, as well as Bry-

ant and Goodfriend, if he wanted the nuptials voided.

"If he's in the business of suing loving couples who've been together 30 years, one of whom has cancer, then I think it's a sad day for Texas," attorney Brian Thompson said. Goodfriend, 58, has ovarian cancer.

State District Judge David Wahlberg, an elected Democrat, on Thursday ordered the Travis County Clerk to issue the couple a license. He based his order on a probate court

judge's ruling on Tuesday that the state's ban on same-sex marriage is unconstitutional. Paxton said Wahlberg relied on an order that violated state law — because he wasn't notified first of the constitutional challenge.

Travis County Clerk Dana DeBeauvoir, whose office issued the license, said that Paxton's allegations "are not accurate." She added, "That's not the way that it happened."

Wahlberg declined to comment.

*Town Board*  
VIVIANA L. RUSSELL  
PETER J. ZUCKERMAN  
ANGELO P. FERRARA  
ANNA M. KAPLAN  
LEE R. SEEMAN  
DINA M. DE GIORGIO

**TOWN OF NORTH HEMPSTEAD  
OFFICE OF THE SUPERVISOR**



**TOWN HALL**  
220 PLANDOME ROAD  
MANHASSET, NY 11030  
(516) 869-6311  
FAX (516) 627-4204



*Supervisor*  
**JUDI BOSWORTH**

*Town Clerk*  
WAYNE H. WINK, JR.

*Receiver of Taxes*  
CHARLES BERMAN

October 21, 2015

Susan Van Patten, Chief  
Procurement, Communication and Partnership Section  
NYSDEC Division of Water  
625 Broadway  
Albany, NY  
12233-3502

Dear Ms. Van Patten,

On behalf of the town of North Hempstead, I wish to congratulate and commend the State on the commencement of the Nitrogen reduction planning process for Long Island. I thank you for accepting these written comments, as my staff and I were unable to attend the October 14<sup>th</sup> listening session in Nassau County. The Town of North Hempstead has seen the same dismaying surface water and groundwater trends that I am sure many of the marine scientists and water quality experts discussed at the listening sessions. My comments focus on the design of remedial programs, specifically as they relate to septic systems.

Long Island's Nitrogen contamination is a problem that has taken centuries to develop; municipal entities and residents alike will be challenged to address the technical considerations and the financial costs to upgrade our septic systems. Local governments are deeply in need of technical guidance regarding the type of septic systems that are most effective at reducing nitrogen, and most appropriate for our soil types. I urge the State to assist with the assessment of modern, advanced treatment options, and to support the adoption of the uniform codes and standards by all Long Island municipalities.

It is very important that all stakeholders operate under the assumption that that residents cannot be asked to single-handedly pay for the planning decisions that were made generations before them, particularly while the cost of living on Long Island is so dramatically higher than the rest of the state and the nation. I urge the State to develop a long-term financing mechanism that will allow residents to upgrade their septic systems to the highest, best level of treatment in an affordable manner. Financial incentives, rebates, or property-assessed treatment upgrades are the only way that many of our residents will be able to afford the necessary septic system modifications.

Finally, Nitrogen pollution is generated by both public and private entities, operating in a variety of sectors. To the greatest extent possible, I urge the state to focus on designing a streamlined, targeted nitrogen reduction program, and to avoid potentially unwieldy programs that would greatly extend the role of local government, or depend extensively on local government for data collection. I wish to emphasize that the Town of North Hempstead is deeply committed to pro-actively playing our part in tackling nitrogen pollution; however, local governments are already struggling to meet the requirements of the MS4 program, while operating under a strict State-mandated budget cap. We are concerned that the State will attempt to address Nitrogen Pollution through a similar program.

Again, I thank you for your efforts to enhance our environment and protect our natural resources.

Sincerely,

A handwritten signature in cursive script that reads "Judi Bosworth". The signature is written in black ink and is positioned above the printed name and title.

Judi Bosworth  
North Hempstead Town Supervisor

We support the Long Island Nitrogen Action Plan. We hope that it does the following:

1. Establishes science-based nitrogen reduction targets based on sub-watersheds across Long Island so we know how much nitrogen is too much for the health of our bays and harbors.
2. Identifies a comprehensive path forward for the implementation of those targets that utilizes both built and natural restoration solutions so we can begin to stop the pollution.
3. Encourages Nassau County, New York State and the Federal Government to work collaboratively to identify a path forward for an ocean outfall with denitrification at the Bay Park Sewage Treatment Plant.
4. Identifies funding for the implementation of the nitrogen reduction targets to restore Long Island waters

Sincerely,  
Guy Jacob  
Conservation Chair  
Nassau Hiking & Outdoor Club, Inc.



October 21, 2015

James Tierney, Assistant Commissioner for Water and Watersheds  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, NY 12233-1010

**RE: Nitrogen Management Plan for Long Island**

Dear Mr. Tierney:

Attached, please find a written version of the verbal statement I made, on behalf of the Peconic Estuary Program, at the Suffolk County kick-off meeting for the Nitrogen Management Plan project on 10/13/15. I appreciate the opportunity to provide input in the early stages of this effort and look forward to collaborating with the New York State Department of Environmental Conservation and the Long Island Regional Planning Council on this important project.

Sincerely,

A handwritten signature in black ink, appearing to read "Alison Branco", with a long horizontal flourish extending to the right.

Alison Branco  
Director, Peconic Estuary Program

Attachment

## **Comments to NYS DEC and Long Island Regional Planning Council re: *Nitrogen Management Plan for Long Island – Kickoff Meeting 10/13/2015***

Nitrogen management is the number one priority of the Peconic Estuary Program (PEP). Human-induced nitrogen pollution is the biggest threat to water quality in the Peconic Region, and Island-wide.

PEP has developed a short-term Action Plan (<http://bit.ly/1itnxXv>), that will lead us into a revision of our Comprehensive Conservation and Management Plan (CCMP) during 2016-2018. This action plan states that in order to protect and restore the Peconic Estuary, the Peconic Estuary Program, and our partners in the region, need:

1. Updated nitrogen targets, at a smaller spatial scale than the existing TMDL provides – preferably by subwatershed.
  - Targets for not only hypoxia (which we now know extends beyond the few most “impaired” western segments)
  - Targets based on additional ecological endpoints. We must explore targets based on:
    - Elimination of HABs, healthy seagrass, healthy wetlands, productive fisheries (i.e. fishable, swimmable waters)
2. A tool to help local governments run scenarios and decide which combinations of management measures to implement in which locations in order to achieve those targets, in the most cost effective manner.

The PEP & our partners have already put a lot of thought into this issue. PEP’s Management Committee formed a sub-group of the Technical Advisory Committee (TAC) called the Nitrogen Workgroup made up of groundwater experts. Their charge was to examine the information & analyses already available here, work being done elsewhere and the needs of the program and the decision makers in the region. They would then make recommendations to the Management Committee about how best to move forward to provide decision makers with the tools they need to manage nitrogen loading in the Peconic Estuary. Though their work is not quite complete, and a written summary of their recommendations is not yet available – this group has said that in order to meet the two needs stated above, the Nitrogen Management Planning effort that is undertaken must include:

1. A coupled hydrodynamic-water quality model of sufficient spatial resolution to set appropriate N load targets by subwatershed, based on the ecological endpoints discussed above.
2. A spatially explicit, three-dimensional, time varying groundwater model that can accurately predict inputs to surface waters by tracking the movement and transformations of solutes within the aquifer.
  - These models must be based on accurate, up-to-date input data and be validated with real-world measurements.
  - We must established good baseline information from which to better understand the sources of nitrogen, the relative magnitudes of the existing loads, and to quantify the reductions needed.

PEP (and LISS, NY/NJ HEP, and SSER) exist to engage stakeholders and integrate the different levels of government for the development of this kind of multi-jurisdictional regional planning effort.

- Organizing around estuaries makes good logical sense, with island-wide integration across the entirety of the aquifers. The new watershed delineation project USGS has already begun, with NYS DEC funding, is a key first step.
- We encourage NYS DEC and the Long Island Regional Planning Council to use the estuary programs to help the project team engage stakeholders, and to add technical expertise and even funding to this important effort. The PEP has technical expertise (in both staff & volunteer workgroups) and some funding available and looks forward to collaborating with New York State on this effort. This is PEP's top priority!

Despite the need for a thorough, scientifically robust planning exercise (as described above), we cannot wait to begin. We must have a two-phased approach.

- We do know a great deal already. We know enough to get started in reducing our loads.
- The original TMDL estimated the need to reduce loading by 30-50%. Refined targets are likely to demand greater reductions, not smaller.
- Suffolk County has already initiated a plan to begin work in Western Suffolk County, with generous financial support from New York State.
- According to Peconic Green Growth, in the Peconic Watershed, approximately 47% of buildings lie within the 0-2 year groundwater travel time, and 72% are within 10 years.
- In areas like the Peconic watershed, dominated by inputs from cesspools and septic systems, there are some simple criteria that can be used to prioritize early on-site wastewater upgrades. Properties closest to surface water shorelines:
  - Have short depths to groundwater,
  - Have high storm/sea level rise flooding risk,
  - Have the potential for both nitrogen and pathogen reductions,
  - And reductions in this area will show results quickly.

The Peconic Estuary watershed is a good place to begin this Nitrogen Management Planning effort because it has:

- Large amounts of existing water quality and land use data, and analyses already available,
- An inter-municipal coalition that is very engaged and has already started to standardize data across jurisdictions,
- Lots of thought already put into what's needed to reduce nitrogen loading (e.g. 2007 TMDL for Nitrogen, Valiela nitrogen load modeling conducted by The Nature Conservancy, PEP N workgroup recommendations, some towns have completed or are working on Local Waterfront Revitalization Plans, town Comprehensive Plans, town Wastewater Management Plans, etc.)
- Relatively fewer solutions applicable in this area, making it a simpler system to address
- Highest likelihood of local funding available to implement a nitrogen management plan due to a proposed revision to the Community Preservation Fund.



Manhasset Bay  
Protection Committee

M A N H A S S E T B A Y P R O T E C T I O N C O M M I T T E E

Sarah Deonarine, Director • c/o Town of North Hempstead Parking District • 15 Vanderventer Avenue

Port Washington, New York 11050-3710 • P: 516-869-7983 • F: 516-767-4638 • E: mbpcExec@gmail.com

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October 15, 2015

Assistant Commissioner James Tierney  
NYS Dept. of Environmental Conservation  
Division of Water  
625 Broadway  
Albany, NY 12233-3508

Chairman John D. Cameron, Jr  
Long Island Regional Planning Council  
1864 Muttontown Road  
Syosset, New York 11791

*Re: Comments and suggestions for the development of a nitrogen reduction action plan for Long Island waters.*

Dear Commissioner Tierney and Chairman Cameron:

The Manhasset Bay Protection Committee is an inter-governmental organization focused on improving water quality and restoring Manhasset Bay on the north shore of Nassau County. On behalf of the 15 local governments represented by the Committee, we submit the attached comments and suggestions for consideration in the development of an action plan for reducing nitrogen in Long Island waters.

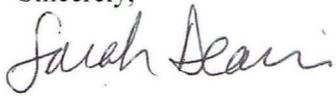
Nitrogen pollution is an important issue for Manhasset Bay, as well as other north shore embayments, and our Committee and its members have taken steps to reduce nitrogen at its source. A few years ago, our protection committee joined with the other two north shore protection committees (Hempstead Harbor and Oyster Bay/Cold Spring Harbor), Friends of the Bay, and the Town of Oyster Bay on a project titled Coordinated Environmental Solutions for Septic Problems Occurring On Long Island, or CESSPOOL. That project is still going on, but one of the earlier phases included a public perception survey on Wastewater Treatment (on-site systems), conducted by Stony Brook University's Center for Survey Research. This public perception survey illuminated the frightening lack of knowledge and understanding of homeowner's who have on-site wastewater treatment systems. While it is a survey of the north shore, it is likely indicative of public perception all across Long Island. References will be made to this document in the comments that follow.

Our efforts would not be possible without the assistance of the NYS Department of State, the NYS Department of Environmental Conservation, the Long Island Sound Study, and NY Sea Grant.

[www.manhassetbayprotectioncommittee.org](http://www.manhassetbayprotectioncommittee.org)

Our Bay has many maritime interests that are negatively impacted by the overabundance of nitrogen in the water. We would like to thank you for the opportunity to comment early on in this action planning process.

Sincerely,

A handwritten signature in cursive script that reads "Sarah Deonarine".

Sarah Deonarine

Our efforts would not be possible without the assistance of the NYS Department of State, the NYS Department of Environmental Conservation, the Long Island Sound Study, and NY Sea Grant.

[www.manhassetbayprotectioncommittee.org](http://www.manhassetbayprotectioncommittee.org)



Manhasset Bay  
Protection Committee

**Suggestions  
for the  
NYS Department of Environmental Conservation and the Long Island  
Regional Planning Council's development of an action plan to reduce the level  
of nitrogen in the waters around Long Island.**

The Manhasset Bay Protection Committee represents the following 15 local governments on the north shore of Long Island, NY: the County of Nassau, the Town of North Hempstead, and the Villages of Baxter Estates, Flower Hill, Great Neck, Kensington, Kings Point, Manorhaven, Munsey Park, Plandome, Plandome Heights, Plandome Manor, Port Washington North, Sands Point, and Thomaston. We offer the following comments:

**GENERAL COMMENTS**

**An action plan must consider an educational campaign, if not multiple campaigns over many years.** While stricter regulations will likely be an outcome of this action planning process, they must also be coupled with an aggressive educational campaign. Otherwise the general public will not know of and, therefore, will not comply with any new regulations. Additionally, if educated, the general public will likely be more receptive to regulation changes, seeing them as a necessity versus an over-reach of government. Some leg work has already been done in this process by the protection committees and can be made available to inform the action planning process.

As mentioned in the cover letter, the CESSPOOL public perception survey demonstrated a lack of knowledge and understanding of on-site wastewater treatment systems by those who own them. The majority of homeowners surveyed believed that a system only needed to be pumped out when there was a problem (only 35% had ever pumped out their system and that was in response to a problem) and most did not know that an on-site system required regular maintenance. A similar 2006 public perception survey conducted by the Long Island Sound Study (available here: <http://longislandsoundstudy.net/wp-content/uploads/2010/03/LIS.Public.Perception.Survey2006.pdf>) also found this to be true. This 2006 public perception survey also found that almost half of Long Island homeowners fertilize at a rate higher than recommended and the CESSPOOL public perception survey found that only 51% knew that fertilizers had an impact on local water quality.

Our efforts would not be possible without the assistance of the NYS Department of State, the NYS Department of Environmental Conservation, the Long Island Sound Study, and NY Sea Grant.

Even further to this point, the CESSPOOL public perception survey found that, while homeowners were concerned about the environment, half of them either did not know where their drinking water came from or gave an incorrect source. Tying environmental well-being and drinking water together could make for a powerful educational campaign.

### **NASSAU COUNTY-SPECIFIC COMMENTS**

**Make funds available for advanced nitrogen-removal on-site wastewater treatment system demonstration projects on the north shore of Nassau County.** Demonstration projects of this type are already occurring in Suffolk County, but not in Nassau County. While most of Nassau County is sewered, 90% of the unsewered area is along the north shore and the embayments in this area suffer greatly from the ill-effects of nitrogen pollution. Therefore, a demonstration program of this type in this area would have a highly visible impact in the area where it is most needed.

**Consider using funds to assist north shore protection committees and organizations in monitoring efforts.** Water quality monitoring is important in order to document the impairments a waterbody is experiencing, but also to document improvements. Please consider using funds to support and/or enhance the water quality monitoring and reporting programs of the Manhasset Bay, Hempstead Harbor, and Oyster Bay/Cold Spring Harbor Protection Committees and the Friends of the Bay.

Our efforts would not be possible without the assistance of the NYS Department of State, the NYS Department of Environmental Conservation, the Long Island Sound Study, and NY Sea Grant.

October 14, 2015

James Tierney, Assistant Commissioner  
NYS Dept. of Environmental Conservation  
Division of Water  
625 Broadway  
Albany, NY 12233-3508

John D. Cameron, Jr., Chairman  
Long Island Regional Planning Council  
1864 Muttontown Road  
Syosset, New York 11791

**Re: Comments for the development of a nitrogen reduction action plan for Long Island.**

Dear Commissioner Tierney and Chairman Cameron:

Thank you for the opportunity to provide comments for the development of a nitrogen reduction plan for Long Island.

The Oyster Bay/Cold Spring Harbor Protection Committee represents 13 municipalities from three levels of government working to protect and enhance the water quality of Oyster Bay and Cold Spring Harbor and their tributaries in the most cost-efficient and effective manner.

Straddling the Nassau and Suffolk County border Oyster Bay and Cold Spring Harbor is the cleanest harbor complex in western Long Island Sound; is home to a National Wildlife Refuge; and, boasts the most productive shellfisheries in New York State. Unfortunately we face real water quality threats with toxic algal blooms in the neighboring harbor complex and recent announcement of expansion of seasonally uncertified shellfish beds in Cold Spring Harbor.

To this end we have worked with the Manhasset Bay and Hempstead Harbor Protection Committees, the Town of Oyster Bay and Friends of the Bay on an innovative onsite wastewater treatment system awareness and training program, developed and implemented Resident Geese Management and Pet Waste Management plans and conducted extensive outreach to residents.

The sources of nitrogen and pathogens are inextricably linked as are our groundwater and surface waters. According to The Nature Conservancy's recent effort to model Nitrogen Loads for the north shore subwatersheds more than 50% of the nitrogen in Oyster Bay and Cold Spring Harbor are derived from septic/cesspool systems and an additional 25% is from fertilizer on lawns, golf courses and recreation areas.

We encourage you to recommend a coordinated Island-wide approach to onsite wastewater treatment systems that would include, but not be limited to, inspecting and inventorying systems and approving use of nitrogen removal systems. Citizen monitoring programs such as Friends of Bay's Water Quality Monitoring Program should also be supported (and expanded) as a cost effective means to evaluate effectiveness of management actions to reduce nitrogen. Lastly any effort should be supported by a comprehensive, long-term education campaign to raise awareness among residents for why limiting nitrogen is important to them.

While we applaud the efforts to correct the Bay Park Sewage Treatment Plant, please do not overlook the harbors on the north shore of Nassau and Suffolk counties.

Thank you for your time and consideration.

Sincerely,

*Rob Crafa, Coordinator*



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## DEC Hearing

### Nassau County Legislative Chamber

October 14, 2015

North Shore Land Alliance is a land trust that operates in Nassau and western Suffolk Counties.

Mission- To preserve and protect, in perpetuity, the green spaces, farmlands, wetlands, groundwater and historical sites of Long Island for people and for quality of life.

Water issues on Long Island are complicated and severe. Drought, overuse, saltwater intrusion and pollution challenge the quality and quantity of our drinking water. Our surface waters are suffering from toxic algal blooms and nitrification causing bacteria that kill fish, destroy the livelihood of fishermen and result in beach closings that impact our economy, the quality of life of our residents and visitors alike.

And, the solutions to these problems are further complicated as they differ from east to the west and north to the south on this long island. There is saltwater intrusion in Great Neck and Bayville, dead zones in South Shore waters and over use and leaky septics in the unsewered eastern areas of the County.

We are extremely grateful to New York State for investing in the funding necessary to help us solve our problems. We deeply appreciate the cooperative spirit among many stakeholders who must grapple with reducing many forms of contaminants to our aquifer and our bays and harbors.

While it is clear that we need to invest in technology to solve this problem we also don't want to lose site of the value of the nature that remains and the importance of protecting it. As the world's forest, wetlands and grasslands are degraded or removed, we lose the natural filtration provided by the roots of trees and native vegetation that enable these systems to serve as a sponge and to absorb flood-water and pollutants. In fact, we've lost half of our wetlands since 1900 and we're losing approximately 32 million acres of forest each year!

It is imperative that we continue to invest in the natural infrastructure that is the basis of our water systems before it is gone, or irreversibly harmed – These natural systems, when left undisturbed provide outstanding services to nature and society.

New York State has a long and proud future of investing in nature by acquiring land to protect watersheds and wetlands that help protect our water resources.

In 1992 the LI Regional Planning Board who was concerned about the impacts of development on water published the SGPA Plan which set aside land areas important to groundwater recharge and suggested that little to no development occur there – unfortunately those were only recommendations and over development continued as did the degradation of our waters.

The 2010 Economic Benefits of Open Space Study conducted by the Trust for Public Land found the following:

- Drinking water costs 10x more in Nassau and Suffolk Counties where sources are not protected.
- Parks and protected open space reduce storm water management costs by \$23.9M annually.

We all know, by clear and convincing evidence, that we have a problem and the hour to fix it is late.

We are here today to ask that protecting land in its natural state in the many watersheds across Long Island be added as an essential action in a nitrogen mitigation plan. To use an old adage, an ounce of prevention is worth a pound of cure which is certainly the case here.

Thank you!

**Comments on LI Nitrogen Action Plan Kick-off Meeting  
Nassau County Legislative Chamber  
Seatuck Environmental Association  
October 14, 2015**

For the record my name is John Turner and I serve as a Conservation Policy Advocate for the Seatuck Environmental Association. Seatuck is a not-for-profit 501(c)(3) organization, founded in 1989, that is dedicated to conserving Long Island wildlife and the habitats and environmental resources upon which they depend. In pursuing our mission we advocate for conservation policy, conduct citizen science research projects (you may be most familiar with our river herring work in this regard) and offer a wide-ranging environmental education program including the operation of several public nature centers.

Seatuck recently adopted a multifaceted "Long Island Campaign for Conservation", one element of which is designed to improve water quality in both our drinking water aquifers and coastal embayments, in addition to reducing stress upon our groundwater system, all in an effort to restore aquatic and estuarine habitats for the benefit of a wide variety of wildlife species.

To do this we propose the aggressive implementation of water reuse throughout Long Island. Water reuse, as the name suggests, is using water again for some other purpose, and in so doing turns what can be a liability - polluted water - into an asset, that is, wastewater is no longer considered waste. According to the EPA approximately 2.2 billion gallons of water is reused on a daily basis in the United States with capacity increasing. California, Texas, Florida, and the arid Southwestern US is where this practice has become most commonplace.

The environmental benefits of water reuse are evident with the recently completed \$3.1 million water reuse project between the Town of Riverhead and County of Suffolk, which will begin in early 2016 and is Long Island's first water reuse project. Starting in April, and running through the warmer months of the grass growing season, approximately 350,000-400,000 gallons of highly treated wastewater will be pumped daily from the town-operated Sewage Treatment Plant to the adjacent county-run Indian Island Golf Course.

Project engineers estimate it will reduce the amount of nitrogen being discharged into Peconic Bay by about 1 ton, or 2000 pounds annually, and will eliminate the need to pump 62 million gallons of water from strained east end aquifers. It may also eliminate the need for Suffolk County to purchase fertilizer for their course.

NYS Lawmakers realized the significant environmental benefits and potential of water reuse when they passed legislation which the Governor signed into law a decade ago establishing Title 6 - Water Efficiency and Reuse, in the Water Resources Section of NY EnCon Law. It was Chapter 619 of the Laws of 2005.

Two significant sections of Title 6 were 1) the requirement for DEC to develop standards to govern water reuse and 2) the preparation of a reclaimed wastewater feasibility study.

Specifically the legislation states:

Section 15-0605 Standards for reuse and disposal of reclaimed wastewater.

The commissioner, in consultation with the department of health, shall establish rules, regulations and standards for the reuse and disposal of reclaimed wastewater and/or greywater. The department of health shall advise the department on water quality and pathogens monitoring requirements.

1. Such rules, regulations and standards shall specify:

a. the permitted uses of reclaimed wastewater and greywater with required levels of water quality and treatment for each permitted use; permitted uses shall include, but not be limited to: industrial cooling; commercial and industrial landscaping; park and golf course irrigation; groundwater recharge; surface water supply augmentation; wetland creation and augmentation, and non-food agricultural crop and lawn irrigation.

b. operational requirements including, but not limited to, treatment facility reliability; storage requirements, if necessary; system labeling and color-coding requirements; and pipe location and placement.

2. Such rules, regulations and standards shall be promulgated within thirty months of the effective date of this section.

Unfortunately here we are a decade later and the DEC still has not promulgated the required rules, regulations, and standards. I say this not as a criticism but to suggest the agency has a significant opportunity to participate in advancing this important strategy by developing the regulations and thereby helping to promote its implementation and thus playing a meaningful role in a comprehensive effort to begin to reduce nitrogen pollution here.

The Department did prepare the required report. "Potential Reuses of Greywater and Reclaimed Wastewater in New York State". This 92-page document does an excellent job at covering all of the relevant issues relating to potential water reuse, identifies where it is taking place, and ironically provides an excellent overview of the rules and regulations other states have put in place to ensure the successful implementation of water reuse.

**Thus, we urge that as part of the effort to begin to control Long Island's nitrogen problem the DEC commits a very small amount of the more than \$5 million dollars the Governor has committed to combatting excess nitrogen to either hire in-house staff to prepare the regulations or a professional consulting firm to complete the task so that the full legal governing framework is in place regarding this strategy.**

**The second important work product Seatuck is respectfully urging the state to fund is a "Long Island Water Reuse Action Plan". The purpose of the Action Plan would be to provide both a blueprint and roadmap for the implementation of water recycling projects throughout Long Island, by looking at the logistical, technical, and financial details associated with reuse, and to then prioritize potential reuse projects for funding. We believe that such an Action Plan, to equip the agency with all the information required to implement this highly effective and targeted water quality protection strategy, is an ideal fit with the Governor Cuomo's \$5 million commitment to combat nitrogen pollution in the Island's drinking water aquifers and coastal embayments.**

For example, along these lines a recent planning exercise by Sarah Lansdale, the Suffolk County Planning Director, documented 26 golf courses in Suffolk County that are within 1/2 mile of a Sewage Treatment Plant.

Lastly, it is important to note that water reuse projects appear to be cost competitive with other strategies designed to reduce nitrogen pollution such as residential septic tank retrofits. Two significant advantages to water reuse projects however over other strategies are a quicker reduction in nitrogen levels and concomitant reductions in water withdrawal from the island's aquifers.

I appreciate the opportunity to provide these remarks and respectfully urge New York State to help protect Long Island's precious fresh- and coastal water resources by adopting water reuse rules, regulations, and standards, and by funding an island-wide water reuse action plan.

Thank you.

**Assemblyman Fred W. Thiele, Jr.**  
**Assembly District 1**  
**Member of Assembly Environmental Conservation Committee**

**Suffolk County Long Island Nitrogen Action Plan Meeting**  
**October 13, 2015**

Long Island is in the midst of a water quality crisis. Nitrogen loadings to our ground and surface waters are causing harmful algal blooms, fish kills, and decimating our sea grasses and shellfish populations. Long Island's economy, the East End's economy, is suffering.

In order to improve the ecological health of bays and the purity of our drinking water we must first study our subwatersheds, quantify nitrogen loadings, and identify targeted reductions that must be realized to meet our ecological goals- e.g., the re-establishment of eelgrass. Once we know what we have and where we need to be, only then can we identify practices or technologies that must be employed in order to meet these targeted reductions.

Each sub region of Long Island is different and unique, and thus, the recommendations that ultimately result from this planning effort must accurately reflect that. The East End has drastically different and distinct development patterns and zoning regulations. In an area which prides itself on devoting over \$1 Billion to preserve open spaces through the Peconic Bay Community Preservation Fund, sewerage is not and will never be an acceptable option. On the East End we need alternative individual and cluster wastewater treatment systems.

Plain and simple, the "best available technology" is not good enough. We must demand and expect more of ourselves if we want to fix the problem. We must work collaboratively with the Department of Environmental Conservation, Environmental Facilities Corporation, our Health Departments, the Clean Water Center at Stony Brook University and our municipalities to ban cesspools, develop and approve affordable advanced nitrogen removing septic systems, require upgrades at time of property transfer, and incentivize installations.

In closing, with the quality of Long Island's ground and surface waters decreasing, it is imperative that we invest the resources necessary to address this regional environmental crisis and protect our economic reliance on clean and useable water resources. As such, we very much look forward to this process and remain dedicated and accessible to you moving forward.