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February 11, 2015

Honorable W. Craig Fugate
Administrator
Federal Emergency Management Agency
U.S. Department of Homeland Security
500 C Street SW
Washington, DC 20472

Re: Bay Park Wastewater Treatment Plan

Dear Administrator Fugate:

We were surprised and disappointed to read a February 8, 2015 Newsday article where Michael Wade of your staff seemingly rejected New York's request for funding of the ocean outfall project at the Bay Park wastewater treatment plant in Nassau County, New York. This project would dramatically improve and protect the coastal resiliency of densely populated areas of southern Nassau County and dramatically improve water quality.

New York State is committed to \$150 million for mid-stage level nitrogen treatment. Because Bay Park effluent causes violations of state and federal Clean Water Act standards pre-dating Superstorm Sandy, FEMA should provide an additional \$550 million to construct the ocean outfall into the Atlantic Ocean consistent with its own "standards and codes" protocol. This is a critically important project to protect the coastal communities in Nassau County from future storm surge and severe weather events and to dramatically improve water quality which will help support Long Island's coastal based economy.

Bay Park contributes more than 80% of the nitrogen discharged into the Western Bays. Excess nitrogen damages and ultimately weakens the coastal marshlands that serve as an important component of resiliency against coastal storm surge and wave action. Reducing nitrogen discharges will serve as an effective mitigation measure, with the unique benefit of increasing in effectiveness over time as damaged marshlands are naturally restored. On the other hand, the loss of marshlands in southern Nassau County due to nitrogen pollution will increase storm damage and resulting FEMA payouts, in the event of likely future storms – particularly the anticipated storms of increased intensity associated with on-coming climate change and sea level rise.



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This ocean outfall project was the subject of prior correspondence between Commissioner Martens and both yourself and Ms. Laura Phillips of your staff. While there have been subsequent meetings, FEMA has not provided a written or formal response to the Commissioner's detailed June 12, 2014 letter to Ms. Phillips. In fact, our understanding was that clarifications provided by New York in that letter and in other high-level meetings were serving as a basis for FEMA to actively evaluate New York's funding request. (Ms. Phillips' May 22nd letter contained numerous misunderstandings regarding critical factual and legal circumstances that related directly to the availability of FEMA funding.)

The following provides the basis for FEMA to fund the ocean outfall project:

Bay Park Plant Must Meet State and Federal Water Quality Standards. It is illegal for discharged effluent from a wastewater treatment plant to cause a violation of New York State's federally approved water quality standards which are promulgated pursuant to a requirement in the Clean Water Act. The New York State Department of Environmental Conservation (DEC) administers and enforces those standards (and the applicable federal Clean Water Act requirements) within New York as an "approved" state program, under the oversight of the U.S. EPA.

Violations of Water Quality Standards by the Bay Park Facility Pre-date Superstorm Sandy. The Bay Park plant discharges to a water body known as Reynolds Channel that mixes directly with, and is part of, a larger water body known as the Western Bays that includes Hempstead Bay. This is a shallow back-bay water body/marshland complex that is inland of a barrier island. In 2006, DEC with EPA's oversight and approval, first adopted the formal Clean Water Act section 303(d) listing of Hempstead Bay as "impaired" due to excessive nitrogen. This formal listing has continued to this day. Thus, DEC and EPA formally identified the water quality in Hempstead Bay as violating New York State water quality standards due to excessive levels of nitrogen. This violation places these waters in violation of federal Clean Water Act and New York State Environmental Conservation Law requirements.

New York Enforces Limitations on Nitrogen Discharges to Achieve Water Quality Standards. The Clean Water Act requires all sewage treatment plants nationally to implement treatment systems that achieve a minimum of "secondary" treatment to remove pollutants. Where, as here, secondary treatment is not adequate to achieve compliance with water quality standards, additional ("tertiary") treatment systems are required to cure the violation. The heightened nitrogen treatment systems required for the Bay Park plant, are required tertiary treatment systems under the federal Clean Water Act. New York State has consistently applied the nitrogen standard to wastewater treatment facilities around New York including on the Long Island Sound and Jamaica Bay as well as for the Binghamton regional wastewater treatment facility which have resulted in significant upgrades to those facilities.

Ocean Outfall Will Cost Effectively Cure the Water Quality Standard Violation Caused by the Bay Park Facility. Prior to Sandy, on June 11, 2011, DEC and Nassau County entered into a legally binding administrative order on consent that required the County to take action to remedy the water quality standard violations caused by the Bay Park plant. This included a required feasibility study designed to evaluate technological options including eliminating the existing outfall to Reynolds Channel and discharging instead directly to a new ocean outfall. The June 2013 engineering feasibility study examined and ranked five alternatives to meet

water quality standards including constructability, life cycle costs, and environmental benefit. The construction of a new outfall discharging out into the Atlantic Ocean ranked the best among five evaluated alternatives (which included variations of the “limit of technology” nitrogen treatment) to achieve compliance with the Clean Water Act nitrogen standards. DEC agrees with the study’s conclusion that the ocean outfall is the preferred and cost effective remedy.

Bay Park’s Ocean Outfall Meets the Requirements for Funding Under FEMA’s “Standard and Code” Provisions. New York’s request for FEMA funding for an ocean outfall and mid-stage nitrogen treatment meets all of the criteria under FEMA’s ‘standards and codes’ program including:

(3) Be found reasonable, in writing, and formally adopted and implemented by the State or local government on or before the disaster declaration date or be a legal Federal requirement applicable to the type of restoration.

(5) For any standard in effect at the time of a disaster, it must have been enforced during the time it was in effect. 44 CFR 206.226(d)(3) and 206.226(d)(5)

The Bay Park plant is large (70 million gallons per day permit limit, 50 mgd average actual flow), and it contributes an estimated 80+ percent of the nitrogen pollution to the Western Bays/Hempstead Bay waters. The Western Bays are badly impaired (i.e., in violation of water quality standards) by excess nitrogen from effluent discharged by the Bay Park facility. The ocean outfall will correct the impairment.

These factors are a basis to find the use of FEMA funds “reasonable,” especially given the high-density, low-elevation, population centers of southern Nassau County that are protected by an extensive network of marshlands threatened by nitrogen pollution.

Prior to Superstorm Sandy and the related federal disaster, the nitrogen water quality standard and the prohibitions against violating this standard were “in writing, formally adopted and implemented by the state” and the federal government both generally in New York, and specifically in the instance of the Bay Park facility. Given that the Clean Water Act required the “impaired” listing of the water body adversely impacted by the Bay Park nitrogen discharge and required the violation to be cured, it is evident that addressing the nitrogen violation caused by the Bay Park plant’s effluent is a “legal Federal requirement applicable to the type of restoration.”

FEMA Public Assistance Funds Would Upgrade Sandy Damaged Effluent Treatment Systems at Bay Park Plant Which Are the Source of the Violation. Superstorm Sandy severely damaged the Bay Park plant’s sewage effluent treatment systems. And, it is the water quality standard violations caused by Bay Park’s inadequate sewage effluent treatment systems that must be upgraded beyond secondary treatment levels under state and federal legal requirements that were in place prior to the time of the Sandy disaster. Thus, New York is seeking FEMA PA funds such that Bay Park treatment systems inundated and damaged by Sandy will be rebuilt and enhanced so as to operate in a manner that is consistent with enforced state and federal legal requirements.

As evidenced by statements attributed to FEMA in the press, there is apparent confusion over whether the current outfall was damaged. Whether the existing outfall from the Bay Park plant was damaged is irrelevant, as New York is seeking FEMA PA funding for a new outfall as a preferred solution to the nitrogen violation. New York's request for FEMA PA funding relates to the legal adequacy of the *effluent treatment systems* at the Bay Park facility, not the existing outfall pipe. It is the inadequate effluent treatment systems that are the cause of the excess nitrogen that, in turn, results in the violation of water quality standards.

FEMA should fund, as an alternative to the more expensive "limit of technology" nitrogen treatment systems, the superior option of the proposed ocean outfall, coupled with a mid-stage level of nitrogen treatment.

Cost Comparison and FEMA's Alternate Procedures Program. As discussed above, New York proposes that FEMA fund an ocean outfall (estimated cost \$550 million) with a mid-stage level of nitrogen. New York is committed to identifying the necessary funds to construct the mid-stage nitrogen treatment. The estimated cost of installing a nitrogen treatment system to achieve a 4 mg/L level is \$350 million. The true "limit of technology" nitrogen treatment system to achieve a 2 mg/L level is estimated to cost \$850 million. Thus, the cost of nitrogen treatment and the requested ocean outfall project are comparable, with the ocean outfall project being significantly better for both water resiliency and water quality as it results in the complete removal of this nitrogen discharge from the back-bay.

New York appreciates the prior funding commitments by FEMA which enabled Nassau County to repair major portions of the Bay Park plant and associated sewage collection systems, as well as the protection of these facilities against a 500-year level storm. However, in light of the full factual and legal circumstances, the ocean outfall project to cure long-standing state and federal legal violations should also be funded consistent with FEMA's 'standards and codes' protocol. We request an in person meeting to discuss this critically important matter at your earliest opportunity.

Sincerely,



Joseph J. Martens, Commissioner
NYS Department of Environmental Conservation



Jamie Rubin, Director
Governor's Office of Storm Recovery