UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
Boston, Massachusetts

REGION 2
New York, NY

OFFICE OF THE
REGIONAL ADMINISTRATORS

December 23, 2015

Clark Freise, Commissioner
NH Dept. of Environmental Services
29 Hazen Drive, P.O. Box 95
Concord, NH 03302-0095

Rob Klee, Commissioner
CT Dept. of Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Alyssa B. Schuren, Commissioner
VT Dept. of Environmental Conservation
1 National Life Drive, Main 2
Montpelier, VT 05620-3520

Basil Seggos, Acting Commissioner
NY State Dept. of Environmental Conservation
625 Broadway
Albany, NY 12233-1011

Martin Suuberg, Commissioner
MA Dept. of Environmental Protection
1 Winter Street
Boston, MA 02108

Dear Commissioners Freise, Klee, Schuren, Seggos and Suuberg:

Our agencies have worked together for many years to repair the environmental damage caused by excessive nitrogen in Long Island Sound. We appreciate the investments you and your communities have made, and welcome the progress we have begun to see in the Sound. It is clear, however, that more must be done if we are to fully restore this vital resource. We are writing this letter to invite you to partner with EPA on our plan to implement a comprehensive nitrogen reduction strategy for Long Island Sound (LIS). As you know, implementation of the *Total Maximum Daily Load to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound* (2000 TMDL) has resulted in significant progress toward reducing dissolved oxygen (DO) impairments in the open waters of the Sound. EPA commends the States for their collective efforts to implement the measures necessary to meet the load reductions specified in the 2000 TMDL. Upgrades to 106 wastewater treatment facilities in Connecticut and New York have resulted in the discharge of 40 million fewer pounds of nitrogen in calendar year 2014 compared to baseline levels, a 51.5 percent reduction. Annual monitoring has documented a 40 percent reduction in the area of hypoxia compared to pre-TMDL levels.[1]

Despite this progress, there is more to do. It is clear based on monitoring and modeling that current and planned actions by the states will fall short of fully implementing the 2000 TMDL and will be insufficient to address other adverse impacts to water quality in Long Island Sound, and its embayments and near shore coastal waters. First, an assessment of stormwater and nonpoint sources of nitrogen suggests that loads from urban storm water, on-site wastewater

[1] Current five-year rolling average in the maximum area of hypoxia compared to the pre-TMDL average.

treatment systems, and turf fertilizer have remained steady or increased.[2] Second, alternatives to the control of nitrogen sources (such as ambient aeration or bioextraction) have not been implemented to the scale needed. Nitrogen pollution can contribute to harmful algal blooms, loss of tidal wetlands and eelgrass, coastal acidification, and hypoxia in embayments. Some of these adverse impacts can result in coastal communities being less resilient to climate change and related effects such as sea level rise.[3]

Now is the time to meet these challenges. To do so, EPA proposes that we increase our collective efforts and broaden the lens through which we have been looking at the impacts of nitrogen pollution in Long Island Sound. Up until now, EPA and the States have largely focused on the dissolved oxygen TMDL, and over the last several years have been engaging in a dialogue over the scope and timing of implementation efforts related to it. EPA believes both the modeling and the monitoring of Long Island Sound give us a sense of urgency and also compel us to do more. Therefore, we invite the States to join with EPA and other stakeholders in carrying out a new, holistic framework—one that includes the development of more and better water quality information in the short-term to enhance decision making on a local watershed level, and reinvigorates implementation of nitrogen reductions throughout the Sound. The framework includes a role for States and stakeholders to inform, shape, and adapt it going forward to the extent they choose to actively participate in it.

In light of the above, EPA is proposing a strategy (detailed in an enclosure) to aggressively continue progress on nitrogen reductions, in parallel with the States' continued implementation of the 2000 TMDL, and achieve water quality standards throughout Long Island Sound and its embayments and near shore coastal waters. The strategy recognizes that more work must be done to reduce nitrogen levels, further improve DO conditions, and address other nutrient-related impacts in Long Island Sound. The nitrogen reduction strategy complements the 2000 TMDL in important ways. Foremost, while the 2000 TMDL is premised on achieving water quality standards for DO in the open waters of LIS, the EPA strategy expands the focus to include other nutrient-related adverse impacts to water quality, such as loss of eelgrass, that affect many of LIS's embayments and near shore coastal waters. Expanding the focus in this way will help restore and protect these important habitats from a range of nutrient-caused impairments, ensuring that water quality standards are achieved in near shore waters as well as supporting the attainment of water quality standards in the open water portion of the Sound.

The proposed strategy is organized by three customized watershed groupings through which we will: (1) develop specific nitrogen load reductions to address local water quality problems; (2) target actions to address these local problems and increase stakeholder involvement; and (3) highlight opportunities in the open waters and western portion of the Sound where DO problems remain. Common to each grouping is the development of nitrogen thresholds that will translate the narrative water quality standard into a numeric target, identification of where nitrogen watershed loading results in threshold exceedances, and assessments of options for the load reductions from point and nonpoint sources that would be needed to remain below thresholds. Customizing the application of nitrogen thresholds for each grouping recognizes their distinct watershed and receiving water characteristics. Each grouping also presents different challenges

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[2] NEIWPCC. 2014. Watershed Synthesis Section. In: A preliminary and qualitative evaluation of the adequacy of current stormwater and nonpoint source nitrogen control efforts in achieving the 2000 Long Island Sound Total Maximum Daily Load for Dissolved Oxygen.

[3] New York State. 2014. Coastal Resiliency and Water Quality in Nassau and Suffolk Counties. Recommended actions and a proposed path forward. http://www.dec.ny.gov/docs/water_pdf/lireportoct14.pdf

and opportunities for setting priorities and making progress. For example, coastal watersheds draining to embayments offer opportunities to work with communities to address local water quality impacts, leveraging existing initiatives such as those for Suffolk County, New York, or the Saugatuck River in Connecticut. Implementation can be tailored to local conditions using multiple Clean Water Act authorities and innovative tools to encourage holistic approaches to nitrogen reduction.

Developing and implementing this strategy will provide a strong technical foundation for taking actions both at the state and federal level to protect Long Island Sound and its embayments. This technical foundation can be used by states in developing watershed reduction plans, enhanced nonpoint source management plans, and stronger NPDES permits where warranted. EPA will use the technical information developed as part of this strategy to inform its permitting activities in the upstream states where we issue permits, and we will provide the information to states authorized to issue permits. This approach is consistent with Section 301(b)(1)(C) of the Clean Water Act, which provides EPA with the independent authority to ensure that NPDES permits issued by it or by the authorized States it oversees comply with applicable water quality standards. EPA believes that working with the states for the next several years will be important to advance the implementation of strategic nitrogen reductions throughout LIS. As we implement this new approach, we will assess progress in nitrogen reductions made by the States with respect to both the 2000 TMDL and to addressing other nutrient-related impacts in the Sound and its embayments.

We appreciate very much the work the states have done to evaluate best management practices (BMPs) for nitrogen reductions from stormwater and nonpoint sources, evaluate tools for tracking BMP implementation, enhance watershed coordination, assess opportunities to apply biological nutrient removal technologies at wastewater treatment facilities in the upper tributaries, and improve monitoring data collection and assessment of tributary nitrogen loads. Much of this work can be incorporated into our path forward. We also believe in the longer term that we should continue to develop technical tools to support assessment of DO criteria and to better understand how LIS responds to nitrogen reductions.

We look forward to close collaboration with the states in development and application of a comprehensive Long Island Sound nitrogen reduction strategy. EPA also plans to involve the public in the refinement of the strategy and welcomes state involvement in that process. If you have any immediate questions, please call Lynne Hamjian at (617) 918-1601 or Jeff Gratz at (212) 637-3873. EPA's Water Directors will be in touch with your Directors in the coming weeks to discuss the proposed nitrogen reduction strategy in more detail and how we can work together to continue the progress made in protecting and restoring Long Island Sound.

Sincerely,

H. Curtis Spalding
Regional Administrator
US EPA-Region 1

Judith A. Enck
Judith A. Enck
Regional Administrator
US EPA-Region 2

Enclosures

cc: Eugene Forbes, New Hampshire Department of Environmental Services
Pete LaFlamme, Vermont Department of Environmental Conservation
Ann Lowry, Massachusetts Department of Environmental Protection
Ron Poltak, New England Interstate Water Pollution Control Commission
Jim Tierney, New York State Department of Environmental Conservation
Betsy Wingfield, Connecticut Department of Energy and Environmental Protection