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,

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.