New York State Department of Environmental Conservation
Long Island Regional Planning Council

Response to Comments
Draft Conceptual Scope for the Long Island Nitrogen Action Plan
June 1, 2016

Conceptual Draft Scope Availability

DEC, the Long Island Regional Planning Council (LIRPC), Suffolk County, and Nassau County are working with stakeholders to develop the Long Island Nitrogen Action Plan (LINAP) to reduce the level of nitrogen in the surface and ground waters around Long Island. Toward that end, DEC and LIRPC, in concert with Suffolk and Nassau Counties prepared a Conceptual Draft Scope for the LINAP that sets forth the goals, planning structure, tentative schedules and tasks that are expected to result in both an 'Early Action' LINAP and a 'Full Term' LINAP.

DEC, LIRPC and the Counties held three project scoping meetings in early February to gather input and accepted comments and questions on the scope until February 19, 2016, with short extensions for EPA and the Indian Nations.

Tasks Going Forward Prior to Finalizing Scope

At the same time as the scope was being updated in response to comments, some tasks planning not expected to conflict with the final scope have been underway. Some have been underway in one form or another prior to scoping and some are moving forward in recognition of the non-linear and ongoing nature of such planning, as well as the desire to not hold up work until all details of the scope are finalized. Examples include sub-watershed planning under the Suffolk County Septic/Cesspool Upgrade Program (SCUPE), associated support through DEC procurement mechanisms including contracting with the United States Geological Survey for sub-groundwatershed delineation and scope of work development to support to the SCUPE sub-watershed planning, and Nassau County northshore sewering studies.

General Description of Comments

Numerous comments on the draft scope were received. The Department received a number of comments that indicated that the overall approach identified in the scoping document was thoughtful and logical. Many of the comments were on what the final LINAP should say; something that is premature at this time. The purpose of the scoping document was to outline the topics and analyses necessary for the development of the detailed draft LINAP, rather than to be the plan. Other comments that were more

focused on the scope of the plan have been reviewed and changes have been made to the final scoping document based on those comments.

Based on comments received by the public, the Final Scope includes the following new sections:

- Groundwater
- Incorporating Citizen Science
  - Usability of Existing Data
  - New Data Collection
- Environmental Justice
- Boundary Conditions
- Benthic Conditions
  - Benthic Substrate
  - Macro Invertebrates
  - Benthic Flux
- Endpoints
  - Potential Endpoints
  - Use of Endpoints
- Existing Regulation and Policy Review
- Public Education
- Existing Wastewater Treatment Plants
  - Compliance with Existing Limits
  - Expansion Capacity
  - Upgrade Opportunities
- Stormwater Control
- Evaluating Emerging Wastewater Technologies
  - Grey Water Separation
  - Composting Toilets
  - Urine Separation
- Nutrient Bio-extraction

A summary of the comments received and DEC's response is outlined below. The comments and responses have been organized by the chapters identified in the table of contents of the draft scoping document.

1.0 Overview

Comment 1: The scope should also include the potential nitrogen load from stormwater/MS4.

Response to Comment 1: The potential load from Stormwater/MS4 needs to be included as a potential source of nitrogen and the final scope has been modified to include this item.

Comment 2: The scope is not broad enough in scope or specific enough in implementation to measure and mitigate the impact of human land use on water quality.

Response to Comment 2: The purpose of the scoping document was to outline the topics and analyses necessary for the development of the detailed draft LINAP. Based on public comments, additional items have been added to the scope. Nitrogen from land use activity will be analyzed, quantified and potential mitigation measures will be identified in the development of the detailed LINAP.

Comment 3: The goals of pure drinking water and clean healthy bays can best be achieved through true watershed restoration. Rather than being an afterthought, the biological damage done to watersheds needs to be reversed by implementing a bold, innovative and far thinking conservation reserve plan, calling for ecological connectivity, restored coastal and riparian habitats, and environmentally sustainable development along the waterfront. Improved management of existing land use and development patterns is never a substitute for fully functioning creeks, wetlands, buffers and watershed forests

Response to Comment 3: The goal of LINAP is watershed restoration. See Sections 4.6 – Ecosystem Based Management, 4.9 - Open Space Preservation and Restoration, 4.10 – Coastal Wetland Restoration Projects and 5.2 – Nitrogen Smart Communities of the Final Scope. Additionally the Final Scope has been modified to include a section on Riparian Buffers.

Comment 4: Recommended strategic actions include establishment of a long term watershed and shore land buffer connectivity model, with mapping of both land preservation targets and compatible stewardship transition zones

Response to Comment 4: The intent of the plan is to develop an interactive GIS Web based tool to help local communities map out options for reducing nitrogen loading to waters. This will include information regarding benefits of open space, wetlands etc.

Comment 5: As paved roads disrupt watershed ecological integrity and adversely affect water quality, both local and regional enlightened storm water abatement plans need to be advanced, which consider road and/or partial road closures, pavement removal followed by re-vegetation of waterfront road ends, and halting of construction of new paved roads, parking lots, and road widening, wherever possible, within impacted watersheds. Alternative transportation modes such as trains, bike incentives, and shuttle buses need to be funded

Response to Comment 5: The Final Scope has been modified to include a new section on Stormwater. Additionally, Sections 4.3 Density and Land Use Planning, 4.8 Green Infrastructure, 4.9 Open Space Preservation and Protection, 4.10 Coastal Wetland Restoration Projects and 5.3 Legal and Governmental Considerations which address the issues identified.

1.1 Background

Comment 6: Nassau County DOH has data indicating that several public supply wells within the Town of North Hempstead boundaries have exceeded 10 mg/l of nitrate in the past ten years. The town is questioning if the statement made in section 1.1 "In some isolated area on Long Island, high total nitrogen concentrations in goundwater…..exceed the drinking water standard (10 ppm total N), precluding its use as a drinking water source" indicates the exceedance must be continuous or groundwater which is unable to be treated by public water suppliers and thus is precluded from use in privately operated wells, or if another clarification is needed.

Response to Comment 6: Section 1.1 will be modified to read "….10 parts per million Nitrate + Nitrite, expressed as N…."

Regarding the Town of North Hempstead's question about the exceedance of the drinking water standard, that is a question for the Department of Health which is the agency that regulates water supply quality.

1.2 Goal Statement

Comment 7: In addition to nitrogen, the LINAP should also address other potential contaminants including VOCs, pharmaceuticals and pesticides.

Response to Comment 7: The inclusion of additional pollutants is generally beyond the LINAP scope. This effort will continue to focus on nitrogen pollution. It should be noted that most of the work that will come out of this effort (modeling, data synthesis, etc) will be available for use for other purposes. Additionally, recommendations of the plan that can have the effect addressing contaminants beyond nitrogen should be favored.

Comment 8: How will the goals and milestones identified in the scope be achieved?

Response to Comment 8: The early actions identified in the scope are expected to do a first order estimation of the contributions from the various nitrogen pollution sources and will establish immediate reduction goals which will be further refined as the more rigorous long term LINAP actions warranted. This process will establish the incremental reductions required from various sources that will then, through the implementation plan, require the sources to verify reductions needed are being met.

Comment 9: Protection of embayment's with good water quality should be included.

Response to Comment 9: Section 1.2 Goal Statement has been modified to include the protection of embayments as suggested by the comment.

Comment 10: LINAP should look at both existing and future nitrogen loads and consider pre-contamination nitrogen levels.

Response to Comment 10: Understanding nitrogen loads is critical. Management scenarios from both existing loading scenarios and future loading scenarios will be as accurate a representation of the existing and proposed conditions as possible.

Comment 11: What about a groundwater endpoint?

Response to Comment 11: The plan will evaluate the impacts of groundwater nitrogen contamination on surface waters, and will help establish loading rates that will be protective of surface waters. Modeling done as a result of this plan can be used by local communities to address issued of groundwater contamination as it might relate to drinking water supply if they feel that is not captured in the assessment for establishing loads to be protective of surface waters. It must be noted that there are existing State (6 NYCRR Part 703.6 Groundwater effluent limitations for discharges to Class GA waters) and local regulations (e.g. zoning to control density) to be protective of groundwater.

It is beyond the Scope to evaluate the existing drinking water MCL.

A large portion of the Scope will focus on the evaluation/identification of treatment practices that will reduce the load to groundwater to be protective of surface waters and drinking water supplies.

Comment 12: While it is understood that the DEC has chosen to limit the scope of this plan to “the waters around Long Island” perhaps this decision should be revisited to include the “waters under Long Island”.

Response to Comment 12: Groundwater contamination affect both surface water quality and the best uses of the groundwater for human uses. This point was unclear in the draft Scope. As such the Final Scope has been revised to include a section on groundwater.

Comment 13: The aquifers should also be modeled to understand the impact to the public water supply.

Response to Comment 13: While not explicitly called out in the Scope, NYS is contracting with USGS to model the groundwater’s of Long Island with a specific focus on public water supply.
Additionally, the Final Scope has been modified to include a section on Groundwater

Comment 14: Comments requested clarification why Little Neck Bay was not included in the Macro Planning Area and also request that it be considered.

Response to Comment 14: The Final Scope has been modified to include Little Neck Bay in the Macro Planning Area.

Comment 15: LINAP should integrate the Plan with the EPAs LI N Strategy by seeking clear, early regulatory endpoints and the ultimate use of authority under the federal CWA to further reduce nitrogen loads from sewer treatment plants discharging to embayment's and harbors.

Response to Comment 15: There should be coordination with the actions identified in LINAP with EPAs Long Island Nitrogen Strategy. Regarding nitrogen loading from WWTFs, the Draft Scope has been modified to include a section on Existing Sanitary Discharges.

Comment 16: The main goal has to be to restore water quality to a level sufficient to support indigenous marine life. The plan should develop a set of solutions with the lowest overall cost that meets the above goal in a reasonable period of time

Response to Comment 16: The intent of LINAP is to identify various ecological endpoints, identify the load reductions necessary to achieve the various endpoints, and conduct economic feasibility analysis to estimate the costs for achieving various levels of nitrogen reductions

Comment 17: The role of atmospheric deposition of nitrogen, mercury and other contaminants needs to be fully addressed, with sources and possible mitigation measures identified

Response to Comment 17: It is beyond the Scope to address contaminants other than nitrogen. Atmospheric deposition will be accounted for in section 3.3.3 watershed modeling.

Comment 18: The impacts of county mosquito spraying on shellfisheries, finfish, aquatic life, and ecological functioning needs to addressed, especially in light of the Zika virus concern

Response to Comment 18: This topic is beyond the Scope of LINAP.

Comment 19: Comments were received supporting the four delineated goals of the Plan as being worthwhile, important, and achievable, and view the fourth goal of “Developing implementation plan to achieve reduction endpoints” as being especially critical for success

Response to Comment 19: The positive comment in support of the goals of LINAP is noted.

Comment 20: Social justice issues need to be included in the analyses

Response to Comment 20: Section 1.2 - Goal Statement – has been modified in the Final Scope to include Environmental Justice areas as suggested by the comment.

Comment 21: It is also important to identify where trends in water quality data are worsening, even if the waters are not impaired

Response to Comment 21: Section 1.2 - Goal Statement – has been modified in the Final Scope to include the protection of embayments as suggested by the comment.

Comment 22: Reduce the creation of wastewater instead of beginning actions after the wastewater is flowing. Healthy gut microbiome can improve the digestive health of many Long Islanders and will significantly increase nutrient absorption, thus reducing their nitrogenous waste. USEPA has applied this exact principle successfully nationwide in agricultural guidelines. Please incorporate new knowledge from these breakthrough methods instead of focusing solely on the same nutrient management BMPs we've been trying for 30 years with limited success

Response to Comment 22: It is beyond the scope of LINAP to address the American diet. The intent of LINAP is to identify various ecological endpoints, identify the load reductions necessary to achieve the various endpoints, and conduct economic feasibility analysis to estimate the costs for achieving various levels of nitrogen reductions.

Comment 23: Optimize upon opportunities to address pathogens impairments in conjunction with nitrogen impairments, where necessary and feasible. Address the need for dually effective wastewater treatment technologies in areas where on-site sanitary wastewater treatment systems (OWTS) are found to cause or contribute to pathogens impairments, as well as nitrogen impairments, to surface waters

Response to Comment 23: LINAP is focused on addressing nitrogen pollution. It is reasonable to expect other pollutants will be addressed during implementation of nitrogen reduction measures and that work done under LINAP will be useful to address other pollutants.

Comment 24: The plan makes imprecise and unclear references to "open space preservation and restoration", "green infrastructure", and "density and land use planning".

Response to Comment 24: Development of the plan will provide more detail. The purpose of the scoping document was to outline the topics and analyses necessary for the development of the detailed draft LINAP.

Comment 25: The draft scope seems too conceptual and without a clear expressed vision of how the goals and milestones will be achieved.

Response to Comment 25: Development of the plan will provide more detail. The purpose of the scoping document was to outline the topics and analyses necessary for the development of the detailed draft LINAP.

Comment 26: What is the process for selecting, prioritizing and developing the list of no regrets actions?

Response to Comment 26: The “No Regrets” items in the Final Scope has been modified based on public input for further evaluation. Moving forward, work groups will be established to select, prioritize and develop the list of no regrets actions.

Comment 27: The very end of the Scope contains this one paragraph statement that describes the output and outcomes expected from this effort. This paragraph should be copied and moved to the goal statement so that the major deliverables expected from this work effort are stated in the beginning of the plan and not buried at the end of the report.

Response to Comment 27: Comment noted.

Comment 28: It is unclear whether this will be yet one more effort whose results sit on a shelf, or a living program that effectively helps promote effective and measurable reductions in nitrogen loading to Long Island Waters

Response to Comment 28: The intent of LINAP is to be a living program with both short term and long term strategies and implementation plans to address nitrogen pollution on Long Island

1.3 Work plans & Macro-Planning Areas

Comment 29: Page 9 Early Action LINAP: This section should identify the new inlet in Bellport Bay as an important area of study. The water quality benefits of the new inlet to the eastern Great South Bay system are profound, and state and federal agencies are involved in discussions and the development of a draft Environmental Impact Statement that may affect policy regarding the new inlet and future breaches. This important topic needs to be incorporated into the LINAP.

Response to Comment 29: The purpose of the scoping document was to outline the topics and analyses necessary for the development of the detailed draft LINAP. The impacts of residence time on all embayments health will be assessed and hydro-modifications as a mitigation plan will be evaluated as part of the management options feasibility and cost effective analysis process undertaken during the development of the LINAP.

Comment 30: Consider a "Workout Watershed" (pilot).

Response to Comment 30: The concept of a “workout watershed” is sound and will be incorporated into the plan as appropriate. Initially however, the intent of LINAP is to prioritize watershed that both need protection to limit degradation of existing good quality water and to look at impaired waters and develop plans to mitigate problem area.

There are limited funds and the development of a system for prioritizing waterbodies and watershed is needed island-wide.

Comment 31: Please ensure Nassau County and Oyster Bay/Cold Spring Harbor are part of the Plan

Response to Comment 31: The Final Scope has been modified better call out Nassau County areas and participation.

Comment 32: Comments received supported LINAPs efforts to reduce the input of nitrogen into the Long Island Sound, one of the first Estuaries of National Significance.

Response to Comment : The positive comment in support of LINAP is noted.

Comment 32: Comments noted that DEC's 2016 draft 303D list now finally lists the Great South Bay as requiring TMDL development for nitrogen. The work plan should identify and reference the Draft 303D list, as it applies to Long Island waters, as TMDL development should be an important component of the LINAP, but is hardly mentioned.

Response to Comment 32: Evaluations of the waters around Long Island conducted during the LINAP process are expected to help inform the 303(d) list.

Comment 33: What is the current status of the Western Bays TMDL study?

Response to Comment 33: DEC is currently working with Nassau County to come to an acceptable solution for the Bay Park outfall.

1.4 Planning Structure

Comment 34: Comments indicated that the leadership team too small and the proposed structure is inadequate.

Response to Comment 34: Section 1.4 Planning Structure and Appendix A of the Final Scope identify the makeup of the Executive Council and Management team and clearly identifies their charge. Transparency is an important aspect of LINAP and, as such, it is envisioned that a number of ad-hoc work groups and opportunities for further public input throughout the LINAP process will be established.

Comment 35: Comments questioned why LIRPC was included in LINAP.

Response to Comment 35: The Legislature identified the LIRPC as the partner for this project and they are named in the budget language.

Comment 36: Increase the transparency of Executive Council, Management Team, and Working Group meetings, funding, tasks, and deliverables

Response to Comment 36: Section 1.4 Planning Structure and Appendix A of the Final Scope identify the makeup of the Executive Council and Management team and clearly identifies their charge. Transparency is an important aspect of LINAP and, as such, it is envisioned that a number of work groups and opportunities for further public input throughout the LINAP process will be established.

Comment 37: The management structure is very loose with a generalized project management team and working group consisting of a mixture of technical, GO, and NGO personnel or groups, but without a clear vision of how specific tasks will be assigned, projects will be managed, the various efforts will be coordinated, and how or who will provide direction to the development of the plan, so that it is focused, achievable, and so that progress can be measured and monitored by the public.

Response to Comment 37: Section 1.4 Planning Structure and Appendix A of the Final Scope identify the makeup of the Executive Council and Management team and clearly identifies their charge. Transparency is an important aspect of LINAP and, as such, it is envisioned that a number of ad-hoc work groups and opportunities for further public input throughout the LINAP process will be established.

1.5 Partners

Comment 38: EPA should be added to the list for potential working group members

Response to Comment 38: EPA is considered a valuable member on working groups; note that EPA is listed as LINAP Working Group members.

Comment 39: Who selected the working groups and put the draft Scope together? Is seems lacking of local input.

Response to Comment 39: There has been significant input by many local groups to the Draft and Final Scope. The purpose of the meeting that have been held to date, with the three meetings in February 2016 being most interactive, has been to get the local public input. Additionally, an open public comment period was held until February 19th and DEC received numerous comments which resulted in positive changes and additions to the Final Scope. The process will continue to include public input as it moves forward.

Comment 40: Add Defend H2O (Kevin McAllister), Open Space Council, Carman's River Watershed Trust Fund, and CRWTF and LICAP to the workgroups

Response to Comment 40: These groups will be added to the Work Groups in the Final Scope.

Comment 41: Comments received did not support listing only LI Clean Water Partnership as representing "all" when 2 other water umbrella groups exist: Water for LI and the Long Island Water Forum

Response to Comment 41: The other groups have been noted and will be added to the workgroups in the Final Scope.

Comment 42: Add Coalition to Save Hempstead Harbor and NY Sea Grant (Amy Mandelbaum LI Outreach Coordinator and Bill Wise, Director) and to the working group.

Response 42: The Final Scope has been modified to include the Coalition to Save Hempstead Harbor and NY Sea Grant (Amy Mandelbaum LI Outreach Coordinator and Bill Wise, Director) to the working group.

Comment 43: The Long Island Sound Study should be added to the working group.

Response to Comment 43: The Long Island Sound Study was already included in the Conceptual Draft Scope planning structure.

Comment 44: Regarding the work group section: Academia, Planners and Engineers, please add:
- AIA Peconic Chapter
- AIA Long Island Chapter

Response to Comment 44: The Final Scope has been modified to add the organizations identified in the comment to the Work Groups.

Comment 45: To the Academia, Planners and Engineers candidates you are welcome to add: Battelle Memorial Institute

Response to Comment 45: The Final Scope has been modified to add Battelle Memorial Institute to the work group.

Comment 46: As part of the Action Plan it is important for Scotts Miracle-Gro and DEC to work together to empower homeowners and all consumers to be part of the effort for clean, abundant water.

Response to Comment 46: Note that Scotts Miracle-Gro (Brian Herrington) is on the LINAP Working Group.

Comment 47: Request that RISE be included on the LINAP Working Group

Response to Comment 47: The Final Scope has been modified to add RISE to the work groups.

Comment 48: The Long Island Farm Bureau is listed as an “Agricultural Service Group” on page 38, which we agree with, but certainly there needs to be more stakeholder groups included for a valid, meaningful picture and to find a better range of solutions. The following groups should be included as well:

- NYAFEC: New York Alliance For Environmental Concerns
- LINLA: Long Island Nursery & Landscape Association
- NSLGA: Nassau Suffolk Landscape Gardeners Association
- LIGSCA: Long Island Golf Course Superintendents Association
- NSA: The New York State Arborists Association
- NYSTA: New York State Turfgrass Association
- LIAA: Long Island Arboricultural Association
- LIFGA: Long Island Flower Growers Association
- Long Island Wine Council & LI Sustainable Wine Growers Assn
- Long Island Vegetable Growers
- CCE: Cornell Cooperative Extension
- Southold Baymen's Association
- LI Shellfish Growers Association
- NYSDEC Shellfish Advisory Committee
- SUNY FarmingdaleDept of Horticulture

Response to Comment 48: The Final Scope has been modified to add the groups identified in the comment to the LINAP working group.

Comment 49: For the conceptual membership section the addition of coastal experts from the USGS), the Fire Island National Seashore/National Park Service which has spent decades managing and funding research on the natural resources of Fire Island, and the United States Fish and Wildlife Service which has personnel with expertise on threatened and endangered species, habitat considerations related to climate change, and hydrology.

Response to Comment 49: The Final Scope has been modified to include the Fire Island National Seashore/National Park.

1.6 Schedules

Comment 50: No meeting schedule or deliverables milestones are expressly presented. As a result it is difficult for the public to evaluate whether this is a serious nitrogen planning effort that will produce concrete and implementable proposals, and based on a sound scientific framework, or something else.

Response to Comment 50: The purpose of the scoping document was to outline the topics and analyses necessary for the development of the detailed draft LINAP. Transparency is an important aspect of LINAP and, as such, it is envisioned that a number of work groups and opportunities for further public input throughout the LINAP process will be established.

1.7 Budget

Comment 51: No budget details are provided so it is impossible to determine even on a preliminary basis the level of effort that will be allocated to some of the conceptual objectives

Response to Comment 51: This planning scope will be used to develop a plan envisioned by the New York State Governor and Legislature. In the 2015-16 State Budget they appropriated $5,000,000:

"For services and expenses related to a Long Island nitrogen management and mitigation plan. Not less than $1,875,000 of this appropriation shall be made available for services and expenses of the Long Island regional planning council (LIRPC). Notwithstanding, and other provision of law, the director of the budget is hereby authorized to transfer up to $3,125,000 of this appropriation to state operations."

Note also that $1,000,000 additional Oceans and Great Lakes funds have been made available for nitrogen planning for the Peconic Estuary that can be used in support of LINAP and the sub-watershed planning in Suffolk County, that will be used for LINAP is being funded through the County's Septic/Cesspool Upgrade Program (SCUPE) at $1,200,000.

Development of the plan will provide more detail. The purpose of the scoping document was to outline the topics and analyses necessary for the development of the detailed draft LINAP. It is anticipated that other available funding sources would become available, such as Project Management Team staffing contributions, Environmental Protection Funds from the Oceans and Great Lakes and South Shore Estuary Reserve categories.

1.8 1978 208 Plan

Comment 52: Comments indicated that the 208 Plan should not be used as a basis for LINAP

Response to Comment 52: The premise of the 208 plan is sound and based in the Clean Water Act.

Comment 53: Comments were received in support of the effort to update the 208 Plan's assessment of the quality of the streams of Nassau and Suffolk Counties

Response to Comment 53: The positive comment in support of LINAP is noted.

2.0 Compile Existing Data and Display

Comment 54: A number of comments recommended citizen science be utilized as part of the LINAP process.

Response to Comment 54: Sections 2.0 Compile Existing Data and Display, Section 3.0 Develop New Water Quality Data and Section 6.0 Stakeholder Engagement will all be modified to identify potential roles for citizen science.

Comment 55: Some of the data and modeling being relied upon dates back to the 1970's and 1980's when our land use practices were different and fertilizer product formulations were also different.

Response to Comment 55: As part of the LINAP process both historic and current land use and practices will be evaluated.

Comment 56: Comments indicated that Data/Information on local storm water be provided.

Response to Comment 56: One of the tasks of LINAP is to create a publically accessible, web based and interactive management tool which will, among other things, centralize available data.

2.1 Environmental Data

Comment 57: A thorough understanding of boundary conditions is needed. For example, while WWTPs in NYC are not within the geographic scope of this effort, nutrient loadings from these facilities likely impact water quality in waters of concern, particularly in the Western Long Island Sound and should be addressed.

Response to Comment 57: Understanding of boundary conditions is important as the comment suggests. As such, the final scope includes a new section on boundary conditions.

Comment 58: In Table 1 of this section, "sediment flux" should be added in the Transport Mechanisms category of the Pollution subsection

Response to Comment 58: The Final Scope has been modified to include a section on Benthic Conditions/Benthic Flux to address the issued identified in the comment.

Comment 59: Incorporate NADP data for wet and dry atmospheric deposition because it is a significant source with favorable trends

Response to Comment 59: It is anticipated that work groups will be formed per the LINAP process to help identify quality sources of data to be used.

2.1.1 Relevant Studies

Comment 60: Relevant Studies should include a review of existing studies of the barrier islands (Fire Island, Jones Beach Island) in relation to water quality, resiliency and projected response to sea level rise to inform the LINAP regarding the potential for increased or altered circulation patterns that will affect water quality and nitrogen concentrations as has occurred in Bellport Bay

Response to Comment 60: the Final Scope identifies that a significant early action task is to identify all of the various projects going on around the island to ensure coordination with other projects as appropriate and to limit redundant work. Section 2.0 Compile Existing Data and Display also includes a discussion on this topic.

2.1.2 Issues

No substantive comments were received on this aspect of the scope.

2.1.3 Identification of Data Gaps

Comment 61: **2.1.3 Data Gaps –** The collection of additional data is an important part of crafting a targeted and effective policy. We support the effort to eliminate existing data gaps and, in particular, encourage the improvement of date collection within the South Shore Estuary Reserve

Response to Comment 61: Addressing data gaps is an important issue and the LINAP process will be used to identify data gaps for all waters of Long Island

2.2 Wastewater Infrastructure Information

Comment 62: Section 2.2 Wastewater Infrastructure Information - it would be useful to include waterfront facilities such as public beaches {Smith Point County Park, Jones Beach State Park, West Meadow Beach Town Park) to determine the status of existing wastewater infrastructure and potential for installation of advanced treatment systems in these shorefront facilities

Response to Comment 62: Understanding the status of existing wastewater infrastructure would be useful. As such, the Final Scope has been modified to include a section on Existing Sanitary Discharges.

Comment 63: In addition either section 2.2 or another relevant section should include data and discussion of boat pump out facilities and programs that are operated by the public and private sector.

Response to Comment 63: Section 5.1 Public/Private partnerships of the Final Scope includes assessing and identifying opportunities for such partnerships. This section will

be modified to expand the role these partnerships can play as suggested by the comment.

Comment 64: Bay Park Ocean Outfall with De-nitrification needs to remain a priority in the Long Island Nitrogen Action Plan

Response to Comment 64: The Final Scope has been revised to include a section on Existing Wastewater Treatment Plant. Addressing the Bay Park WWTF is a high priority, but note that the timing and trajectory for this process is, as yet, undefined.

Comment 65: **2.2 Wastewater Infrastructure Information -**We urge the Plan to make a recommendation to investigate potential methodologies or models that could provide accurate data on quantifying the adverse groundwater quality impacts from leaking sewer lines and factor this data into whatever groundwater modeling approach the Plan utilizes

Response to Comment 65: The Final Scope has been modified to add a section for Existing Sanitary Discharges to address the issues identified in the comment. This section will identify items such as the age of the WWTPs and existing collection systems. This data will then help inform identification of all potential nitrogen loading sources.

Comment 66: Existing wastewater treatment plant facilities should be upgraded to tertiary treatment levels that remove nitrogen and other pollutants before discharging effluent into the ocean. As the 208 Study recognized more than 30 years ago: “The ocean is not an infinite sink.”

Response to Comment 66: The Final Scope has been modified to add a section for Existing Sanitary Discharges to address the issued identified in the comment.

2.3 Displaying Information

Comment 67: 2.3 mentions making available all existing datasets to the public, we would recommend they publish these as services (dynamic approach) or at least make the datasets downloadable (static approach) so the public and other municipalities can consume the data and work with it

Response to Comment 67: The intent of LINAP is to develop an interactive GIS Web based tool to identify all data pertinent to the plan and to help local communities map out options for reducing nitrogen loading to waters. This will include information regarding benefits of open space, wetlands etc as well as water quality data as examples.

Comment 68: The Cape Cod Model should be seriously explored, specifically with respect to the use of data technology platforms (custom web tools) for addressing impacts and solutions/strategies to reduce nitrogen

Response to Comment 68: The Cape Cod model and custom web tool for addressing impacts and solutions to reduce nitrogen is being actively considered as a model to emulate.

Comment 69: Comments were received in support of the decision to make all data sets, research efforts, and models available to the public via an online map-based database

Response to Comment 69: The positive comments in support of LINAP are noted.

2.4 Characterize and Prioritize Waterbodies

Comment 70: Protection of embayment's with good water quality should be included.

Response to Comment 70: Section 1.2 Goal Statement has been modified to include the protection of embayments as suggested by the comment.

Comment 71: With regard to the prioritization of goals and targeting projects, it cannot be over-emphasized that, although population density may be a useful tool in determining action items, it must not be the only or even the primary consideration. It would be a grave mistake to fail to prioritize the East End, where our resort and marine-based economy depend so heavily on water quality or to consider our needs less pressing that hos of western Suffolk and Nassau Counties, because our population is less dense.

Response to Comment 71: The intent of LINAP is to evaluate all waters of Long Island and establish load reductions for all that are impaired and establish allowable loads to protect good water quality. Implementation of actions to reduce or limit loading will ultimately be the responsibility of the local communities

Comment 72: Section 2.4 and Section 3.0 should include characterization of water quality within the areas proximate to inlets and bays including the Atlantic Ocean immediately south of the barrier islands, the Long Island Sound, and Block Island Sound. These waterbodies comprise the areas that exchange water with the bays and harbors to be addressed by the LINAP, so understanding their water quality is an important component of the LINAP

Response to Comment 72: The groundwater modeling currently being conducted by USGS is expected to identify areas of groundwater discharge

Additionally, the Final Scope has been modified to specifically include a section on Boundary Conditions.

Comment 73: Environmental justice should be emphasized in developing and implementing the plan.

Response to Comment 73: Environmental justice is an important issue as suggested by the comment and, as such, Section 1.2 Goal Statement has been modified for prioritization to consider Environmental Justice areas

Comment 74: More emphasis on upland health is needed. None of the potential indicators listed include any biometrics for upland health.

Response to Comment 74: The focus of this effort is on water quality. Upland health and Open Space Preservations are acknowledged as significant contributors to water quality. Upland health and open space preservations will figure into LINAP as management options for improving/protecting water quality.

Comment 75: Comments indicated that the Draft LINAP was not broad enough in scope or specific enough in implementation to measure and mitigate the impacts of human land use on water quality.

Response to Comment 75: The Final Scope has been updated with input from many stakeholders and will serve as the basis for development of the LINAP.

Comment 76: Last year I saw a satellite photo of the NY Bight showing a large brown tide in the open sea. It's not just our bays we have to worry about. NJ has to do their part also.

Response to Comment 76: While LINAP is primarily focused on the near shore waters and groundwaters of Long Island, generally accepted practices for establishing boundary conditions for performing the surface water hydrodynamic modeling will be employed.

Comment 77: Nitrogen pollutes the Peconic Bays" (and that's why no seaweed or fish). Again, data show levels generally less than 0.3 mg/L in most areas. Marine water plants are absent because of high Nitrogen." In the Peconics we had much more eel grass and such in the fifties when we had huge duck populations. It has to be more complex than just N.

Response to Comment 77: There is a significant need to better understand the data that is available. Also, since everything works as a system, you cannot look at singular pieces of data. The intent of the LINAP is to understand acceptable loadings of nitrogen to the different systems of Long Island based on an understanding of the effect of nitrogen loading to ecological indicators. LINAP will evaluate management options for controlling nitrogen loads to waters of Long Island and will provide local communities with tools to help identify and implement management options to reduce nitrogen loads to waters of Long Island.

3.0 Develop New Water Quality Data

No additional comments were received.

3.1 Sub watershed Boundaries

No substantive comments were received on this aspect of the draft scope.

3.2 Nitrogen Endpoints

Comment 78: In addition to developing ecological endpoint goals, the Plan should also explicitly identify plausible pre-contamination nitrogen levels in our aquifers and surface water bodies, and an easily relatable "scale" of contamination in each of the aquifers and surface water bodies.

Response to Comment 78: Through the endpoint development process, it is expected that the ultimate goals will be to achieve pre-contamination conditions, or as close to those goals as is economically and socially acceptable.

Comment 79: Section 3.2 The NYSDEC is working to develop numeric nutrient standards for state surface waters. This section would ideally be used as the means to complete that effort for the subject waterbodies. This would prevent proliferation of varying water quality standards for surface waters in the LINAP study area.

Response to Comment 80: As noted in the comment, DEC is working to develop numeric nutrient standards for state surface waters. One of the goals of LINAP is to establish water quality endpoints to inform the necessary nitrogen load reduction targets to mitigate water quality problems caused by excess nutrients. These two processes will be done in collaboration with one another.

Comment 80: DEC should commit to adopting early action water quality endpoints as default standards during calendar year 2016

Response to Comment 81: The LINAP process will include the formation of a working group to identify and establish ecological endpoints in consideration of site specific factors, which will then be used to establish nitrogen loading reduction targets.

Comment 82: Consider mass loading per acre, not just flow parameters for nitrogen mitigation targets

Response to Comment 82: The models that will be used during both the early actions and the longer term actions will look to accurately identify nitrogen loading from all sources. Work groups will be established to assess items such as model inputs to ensure that the best data is being used for the modeling analyses.

3.2.1 Potential Indicators

Comment 83: Allow the list of secondary indicators to be improved as science advances. We are very close to having DNA barcodes available for indicator microorganisms. These signatures could serve as new means to quantify ecosystem functional status immediately and cost effectively

Response to Comment 83: The list of indicators is preliminary and will be revised as appropriate through the LINAP process.

3.2.2 Use of Indicators

No substantive comments were received on this aspect of the draft scope.

3.3 Modeling

Comment 84: **3.3 Modeling** – As part of its own, independent exploration of water quality issues in the Great South Bay, Seatuck was already planning to contract for hydrodynamic and water quality modeling of portions of the South Shore Estuary Reserve. We expect to contract the work to Dr. Gary Zarillo of the Florida Institute of Technology in early March 2016. Dr. Zarillo intends to use the EFDC/HEM3D model for the project, which Seatuck understands is the same platform used for the Peconic Estuary TMDL and is currently being used by consultants working with Stony Brook University and Southampton Town in Moriches and Shinnecock Bays. The EFDC hydrodynamic model will be setup on a grid that includes the morphologic details of the entire Great South Bay system. The model setup will include boundary conditions covering water level, freshwater inflows, salinity, temperature, air sea interaction, and ground water flux if available. Initial model runs will explore alternatives to improve flushing of GSB. Later, the coupled HEM3D water quality module could be used for simulation of nutrient driven water quality processes in Great South Bay. We are eager to partner with the DEC and Council to coordinate Seatuck's modeling efforts to ensure they are consistent with and contribute to the overall goals of the Plan

Response to Comment 84: Seatuck's ongoing efforts for hydrodynamic and water quality modeling of portions of the South Shore Estuary Reserve will be coordinated with LINAP.

Comment 85: Do not invest further in, or rely upon, complex ecosystem productivity/cycling model simulations of nitrogen assimilative capacity to derive waterbody TMDL assimilative capacities.

Response to Comment 85: LINAP had been proposed to be implemented in two parts: early action and long term action. Part of this strategy is because of the realization that there is too much nitrogen in the system as it is and reducing the load is evident. There

are however compelling reasons to use models to support decisions for actions, particularly when those actions will cost significant resources.

3.3.1 Model Development and Selection

Comment 86: Evaluate and resolve any conflicts between modeling conducted in concert with the LINAP and the modeling proposed by the Peconic Estuary Protection Committee

Response to Comment 86: The modeling efforts conducted by others needs to be identified and evaluated. It is anticipated that a designee from the Peconic Estuary Protection Committee would be asked to be a participant on a specific work group (e.g. modeling).

Comment 87: Evaluate the data and modeling methods that were used to derive existing TMDLs

Response to Comment 87: The LINAP process will evaluate relevant data and modeling efforts done in the past and build upon what is useful and learn from experience from the past.

Comment 88: The scope does not indicate the process for selecting, managing and evaluating the models or for determining spatial resolution or other factors. With a budget of $5,000,000 for the LINAP and given the diversity of watersheds, the modeling effort can eat up a substantial portion of the budget, if not carefully managed. According to the Gantt chart the modeling effort will take about 14 months. Is that realistic, especially for more complex models?

Response to Comment 88: Modeling will be done to support both short term and long term action items. The initial modeling will be to support “no regrets” action items. It is anticipated that more detailed modeling will be done for “long-term LINAP”. It is anticipated that work groups will be established on the various modeling components of LINAP.

3.3.2 Groundwater Model

Comment 89: Comments indicated that USGS should be utilized for the groundwater modeling work and for creation of a centralized database. This database needs to be integrated in an active, minute to minute, online available to the public database.

Response to Comment 89: The USGS is being funded to complete a ground watershed delineation model and under a separate contract to use the model to understand groundwater yields and contaminant movement. Additionally, it is the intent of LINAP to develop an interactive web based data mapped and ultimately a GIS based management tool similar to the tool that has been developed for Cape Cod. See discussion in Section 2.3 Displaying Information.

Comment 90: Provide historical references when characterizing individual watersheds and waterbodies

Response to Comment 90: It is expected that historical conditions will need to be understood to help understand the influence groundwater and the varying travels time will have on nutrient load to surface waters. This will be addressed in many of the modeling sections of LINAP.

Comment 91: Incorporate, prioritize, and/or distinguish groundwater drainage areas within the framework of macro-planning areas

Response to Comment 91: This is a critical component of LINAP, as such the USGS is developing a regional groundwater model with one of the tasks being the development of groundwatershed. For early action LINAP, since the USGS work will not be completed within the timeframe, alternative methods will be used.

Comment 92: In addition to MODFLOW, comments indicated it is imprudent to rely upon a single groundwater model as the basis for implementing the LINAP. It was recommend that the MODFLOW groundwater model be supplemented with vector based spatial analyses such as spatial interpolation

Response to Comment 92: The proposed approach to identifying groundwater loads will include a correlation between land use and nitrogen loading. A number of technical workgroups with various experts will also be employed to make recommendations on various aspects of LINAP including modeling. The intent is to develop a web based tool to allow end uses/planner/local community to better implement management practices.

Comment 93: In addition, water used for irrigation needs to be added to the calculation of wastewater volume

Response to Comment 93: It is the intent of LINAP to identify all sources of nitrogen loading to groundwater and surface waters.

3.3.3 Watershed Model

Comment 94: Nutrient load from increased impervious surfaces and increased fertilizer use should be evaluated.

Response to Comment 94: Stormwater and fertilizer are potentially signficant sources of nutrients, depending upon the watershed. Regarding stormwater, a new section has been added to the Final Scope on this topic.

3.3.4 Hydrodynamic Model

Comment 95: Comments expressed concern that the hydrologic connection between western Great South Bay and the Western Bays not be downplayed and that the "Early Action LINAP" include an analysis of the impacts to eastern Great South Bay from Bellport Inlet

Response to Comment 95: Hydrodynamic modeling will occur in both the early LINAP actions as in the more rigorous long term LINAP actions and is expected to consider the issues identified in the comment.

Comment 96: Comments indicated that LINAP should place more emphasis on hydrodynamic modeling of embayments and not forget to consider off-Island sources of nitrogen.

Response to Comment 96: The Final Scope has been modified to include a section on Boundary Conditions to address the issue identified in the comment. Additionally, hydrodynamic modeling will occur in both the early LINAP actions as in the more rigorous long term LINAP.

3.3.5 Water Quality Model

Comment 97: A thorough understanding of boundary conditions is needed. For example, while WWTPs in NYC are not within the geographic scope of this effort, nutrient loadings from these facilities likely impact water quality in waters of concern, particularly in the Western Long Island Sound and should be addressed.

Response to Comment 97: Understanding of boundary conditions is important as the comment suggests. As such, the final scope includes a new section on boundary conditions.

3.3.6 Considerations

Comment 98: Comments were received indicated that LINAP needs to assess the potential increase in nitrogen due to the continued dumping of dredge material in the Long Island Sound.

Response to Comment 98: The Army Corp of Engineers LIS Dredges Material Management Plan addresses dredge materials management. Additionally, the Final Scope has been revised to include an analysis of Benthic Conditions/Sediment Flux.

Comment 99: The LINAP needs to address the issue of Benthic Flux in priority rivers and waterways

Response to Comment 99: The Final Scope has been revised to include Benthic Conditions/Sediment Flux. Benthic flux will be evaluated as both a source of nitrogen

load in the long term actions and dredging of sediments could be evaluated as a load reduction management option as part of the management alternatives analysis to be performed as a long term action.

Comment 100: The Nitrogen Action Plan should recommend that Nassau and Suffolk Counties incorporate Dredging Plans for Navigation Purposes and Water Quality Improvements

Response to Comment 100: Dredging will be evaluated as part of section 4.5 hydro-modifications. These evaluations may include looking at maintenance dredging and possibilities for expanding the scope of these projects to include additional dredging if identified as a significant source of nitrogen and a viable management option.

3.3.7 Basic Tenet's

No substantive comments were received on this aspect of the draft scope.

3.4 Nitrogen Load Reduction Targets

Comment 101: A thorough understanding of boundary conditions is needed. For example, while WWTPs in NYC are not within the geographic scope of this effort, nutrient loadings from these facilities likely impact water quality in waters of concern, particularly in the Western Long Island Sound and should be addressed.

Response to Comment 101: Understanding of boundary conditions is important as the comment suggests. As such, the final scope includes a new section on boundary conditions.

Comment 102: Nutrient load reductions should be emphasized in stormwater control.

Response to Comment 102: The Final Scope has been modified to include a section on Stomwater to address the comment.

Comment 103: A number of comments indicated that the plan should ensure that sewering or innovative/alternative on-site disposal technology does not lead to increased density that leads to increased loadings to surface waters or groundwaters. Additionally, comments indicated that with a few small-scale and important exceptions, sewers are not desired in the East End communities of Long Island

Response to Comment 103: The intent of LINAP is to identify necessary nitrogen loading reductions necessary to achieve desired water quality goals and to work with the local communities to identify the best solutions for achieving those reductions. This ultimately will be a locally driven effort with LINAP helping to provide many of the tools necessary for local communities to implement plans for achieving the necessary reductions.

Comment 104: It is critical for the nitrogen action plan to develop specific formulas to project the nitrogen impacts from proposed mulit-unit and other residential development on a per-unit basis.

Response to Comment 104: Management scenarios from both existing loading scenarios and future loading scenarios will be as accurate of the existing and proposed conditions as possible. It is expected work groups will be formed with various experts on establishing nitrogen load/targets during LINAP.

Comment 105: What happens to the nitrogen once it is in the water column?

Response to Comment 105: The concept of using ecological endpoints for determining necessary nitrogen load reductions is based on the relationships between nitrogen in the system. It is expected that the modeling efforts associated with LINAP will address the issued identified in the comment.

Comment 106: How did the TMDL for the LIS get the NPS load so wrong?

Response to Comment 106: The major focus of the 2000 LIS N TMDL was on reducing the load from wastewater treatment plants, which were identified as being the largest load of nutrients to LIS. This effort has been successful in reducing the load from these sources and that is reflected in improved hypoxic conditions in LIS.

Comment 107: The Long Island Nitrogen Action Plan (LINAP) plan makes the assumption that we have too much nitrogen and that the only nitrogen management option is to reduce it. However, this unidirectional approach that only considers nitrogen reduction strategies has already caused major disruptions to our bays and living resources. These disruptions will likely continue until we learn to manage nitrogen rather than simply reduce it.

Response to Comment 107: The intent of the LINAP is to understand acceptable loadings of nitrogen to the different systems of Long Island based on an understanding of the effect of nitrogen loading to ecological indicators.

4.0 Management Options Feasibility and Cost Effective Analysis

Comment 108: The Conceptual Draft Scope make no reference to the DEC's permitting authority through the MS4 or SPDES permit programs.

Response to Comment 108: The Final Scope has been modified to include sections on Existing Sanitary Discharges and Stormwater to address the issues identified in the comment.

Comment 109: Encourage reducing nitrogen from all sources by using existing regulatory authority and in appropriate instances, developing new ones.

Response to Comment 109: The Final Scope has been modified to include a section on Regulatory and Policy Review to address the issues identified in the comment.
Comment 110: Evaluate the 10 State and county regulations for use of intermediate systems and introduce more flexibility and cost/benefit solutions

Response to Comment 110. The Final Scope has been modified to include a section on Regulatory and Policy Review to address the issue identified in the comment.

Comment 111: Many of the soils on Long Island are not considered suitable for onsite treatment, please consider approaches appropriate for varied percolation rates

Response to Comment 111: Soils are an important overlay in determining recommendations for future management actions. As such, soils will be considered in preparing such recommendations.

Comment 112: Alternative approaches to the design of sewage treatment facilities are needed. The traditional approach using gravity feeds to treatment sites adjacent to water bodies will not address new issues such as climate resiliency, environmental impacts of failures, and groundwater recharge addressing quantity issues. These three factors need to be part of the evaluation criteria for all solutions. Ocean outfalls should be phased-out not increased, as evidenced by the enlarged “dead” zone in the Atlantic Ocean off the coasts of New Jersey and Long Island. New systems, such as Septic Tank Effluent Pump (STEP) system, need to be piloted. Multi-faceted approaches to treatment should also look at opportunities for “mining” of products and energy generation

Response to Comment 112: STEP and cluster systems will be one of the alternatives considered going forward.

Comment 113: When considering cost-effective solutions, please include adding secondary and tertiary treatment to existing collective systems

Response to Comment 113: Agreed.

Comment 114: Discuss with NYCDEP and USGS whether the rising levels of aquifers in Brooklyn and Queens can be mitigated by pumping some of the volume to help dilute the nitrogen concentrations and increase the levels of Nassau’s lowered aquifers which are also threatened by saltwater intrusion

Response to Comment 114: The aquifer under Brooklyn and Queens is the same aquifer under Nassau and Suffolk County. The aquifer system is island wide.

Comment 115: Within the management options approach, adapt the X-Prize model to incentivize breakthroughs in moderate and small scale wastewater treatment

Response to Comment 115: The SBU Center for Clean Water Technology has been created and funded to undertake research and to offer grant money to others doing research on alternative wastewater treatment systems.

Comment 116: Reynolds Channel needs an ocean outfall pipe but that will lower the water table creating a problem for our lakes and streams

Response to Comment 116: Water that is discharged to Reynolds Channel or the ocean does not prevent a lowering of the groundwater table. Over use and lack of groundwater recharge affect the groundwater table and subsequently the base flow of lakes and streams.

Comment 117: Will the LINAP team make any effort to identify additional actions such as public education which is not a listed action (importance of pollution prevention, watershed protection efforts, and what citizens can do to reduce nitrogen)

Response to Comment 117: The Final Scope has been modified to include a section on Public Education to address such items as identified in the comment.

Comment 118: One no-regrets action might be for DEC to examine its own processes and rules/regulations so that the transactional costs and administrative burden of implementing and permitting pilot projects is reduced or at least fast-tracked.

Response to Comment 118: The Final Scope has been modified to include a section on Regulatory and Policy Review to address such items as identified in the comment.

4.1 Residential Wastewater

Comment 119: Section 4.1 does not mention Nassau County or the Nassau County Villages that oversee septic systems.

Response to Comment 119: Section 4.1 will be modified to include Nassau County and the various local entities throughout Long Island that are responsible for overseeing septic systems at the local level

Comment 120: Single family home cesspool/septic systems must be included in the plan.

Response to Comment 120: It is the intent of the Plan to look at all the various options for reducing nitrogen loading to the waters of Long Island, including addressing single family septic/cesspools through a multitude of various options from installing sewers to using advanced/innovative on-site septic systems to making simple code changes. All potential options will be identified.

Comment 121: The nitrogen action plan needs to recognize that water diversion to sewage treatment plants can lower the groundwater table, resulting in loss of viable

creeks and wetlands, and diminution of beneficial nitrogen/contaminant entrapment, filtration and breakdown roles provided by natural systems

Response to Comment 121: The comment raises an important issue. When evaluating various nitrogen management options the effects on the environment will be considered.

Comment 122: Identify the process of selecting priority areas for an existing cesspool inventory.

Response to Comment 122: The process of selecting priority area for an existing cesspool inventory has not been established. The Scope is simply identifying topics to be addressed, the actual Plan will then establish processes.

Comment 123: Indicate the target area for the cesspool inventory required in the Watershed Review Guidance

Response to Comment 123: The purpose of the scoping document was to outline the topics and analyses necessary for the development of the detailed draft LINAP and, as such, the target area for an existing cesspool inventory has not been established. During the actual plan development the process to establish the inventory and target area for addressing cesspools will be established.

Comment 124: Section 4.1 Residential Wastewater- use Suffolk County Water Authority water use data to identify properties that are likely to be used seasonally vs. all year, and to more closely identify high wastewater generation. Use this data to target efforts for the installation of alternative/innovative sanitary systems

Response to Comment 124: The reality of the seasonality of many areas of Long Island is a key consideration in LINAP. As such, careful consideration on this issue will be employed in the development of LINAP.

Comment 125: The Draft Scoping document includes a section on the Suffolk County Septic/Cesspool Upgrade Project. The LINAP needs to also include a proposal to address Nassau County's Septics and Cesspools

Response to Comment 125: DEC agrees that on-site wastewater systems in Nassau County be analyzed. As such, Section 4.1 Residential Wastewater has been modified to include analysis for Nassau County as well as suggested by the comment.

Comment 126: Develop a plan to approve the option of using alternative systems that are known and proved to work elsewhere without arduous Long Island trials as viable alternatives for on-site and cluster treatment systems in both counties.

Response to Comment 126: Alternative systems of all types will be evaluated for management scenarios as part of the LINAP process. Additionally the Center for Clean

Water Protection at Stony Brook University will be looking to develop more advanced alternatives that could be considered for use by the public in the future.

Comment 127: Comments indicated the need to address existing septic systems and cesspool concerns in the short term.

Response to Comment 127: DEC agrees that septic systems and cesspools are a potentially significant source of nitrogen. The Final Scope has been modified to include a section on Regulatory and Policy Review to address the issue identified in the comment.

Comment 128: Comments indicated that the current method of calculating wastewater discharge is based on the number of units in a development. A 124-unit condominium complex, The Heritage at Cutchogue, has been proposed for the heart of Cutchogue village; the current plan is to direct all wastewater into clustered septic systems, with no mitigation of Nitrogen loading. The number of units is just under (by one unit) the threshold requiring a sewage treatment plant, as calculated under current Suffolk County regulations

Response to Comment 128: The Final Scope has been modified to include a section on Regulatory and Policy Review to address such issues as identified in the comment.

Comment 129: Comments indicated that instead of calculating wastewater volume just by looking at the number of units, that either the number of residents or the square footage of the number of units should be used to calculate wastewater volume – with the maximum number used

Response to Comment 129: The Final Scope has been modified to include a section on Regulatory and Policy Review to address such issues as identified in the comment.

Comment 130: The tireless efforts of dozens of individuals over many years, has led to a dramatic resurgence in bay scallop populations and fisheries since 2008. This has generated more than $8 million of additional revenue for local baymen, and more than $80 million in economic benefits to local business over the last 8 years. This resurgence has also helped to preserve the maritime culture that is central to the East End of Long Island.

Comments indicated that the excess levels of Nitrogen that would be generated by the proposed Heritage at Cutchogue will pose a serious threat to Peconic bay scallop populations and fisheries, as well as other finfish and shellfish species.

Response to Comment 130: Individually proposed development projects may or may not be included in the subwatershed analysis during the early LINAP actions. Results from the early and long term LINAP actions will provide guidance on how much nitrogen load a system can handle. Local communities will need to implement management actions to achieve those goals.

Comment 131: Institute stricter regulations for nitrogen mitigation, especially for large residential developments, effective immediately

Response to Comment 131: The Final Scope has been modified to include a section on Regulatory and Policy Review to address such issues as identified in the comment.

Comment 132: Encourage people to install composting toilets. The modern composting toilets are attractive and efficient and they address the dual problems of water utilization and generation of waste nitrogen. The State and/or towns can provide financial incentives in the form of outright grants or tax rebates.

Response to Comment 132: The Final Scope has been modified to include a section on Other Alternative Systems which would include such items as identified in the comment.

Comment 133: Consideration should be given to designating special districts where particular emphasis would be made to increase the number of composting toilets especially those areas with high water tables or near the shoreline which are prone to septic tank failures and limited efficiency

Response to Comment 133: The Final Scope has been modified to include a section on Other Alternative Systems which would include such items as identified in the comment.

Comment 134: Expanding the Ocean Beach sewer district is an early action consistent with Section 4.1 objectives for residential wastewater systems. Similar local actions should be identified in other communities for potential fast tracking

Response to Comment 134: LINAP will evaluate management options for controlling nitrogen loads to waters of Long Island and will provide local communities with tools to help identify and implement management options to reduce nitrogen loads to waters of Long Island. Identifying high priority areas for sewering is an integral component of LINAP.

Comment 135: In addition to urine diverting systems, composting toilets using a foam flush or no water at all should be tested and reviewed as an alternate system

Response to Comment 135: The Final Scope has been modified to include a section on Other Alternative Systems which would include such items as identified in the comment.

4.2 Agricultural Best Management Practices

Comment 136: The impact on our farmers and fishing industries must be included, as well as the resulting impacts on our greater economy

Response to Comment 136: Agreed.

Comment 137: Section 4.2 Agricultural Best Management Practices - review potential to require BMPs, including the requirement for a Nutrient Management Plan (as is done in the NYC watersheds) as a condition of government purchase of farmland development rights.

Response to Comment 137: Section 4.2 Agricultural Best Management Practices acknowledges that farmlands and their contribution to the nitrogen problems in Long Island waters is something to consider. Additionally, a work group will be formed to help assess potential action items to mitigate nitrogen from farming activities if necessary.

Comment 138: Set Clear Nitrogen Reduction Targets for Agriculture

Response to Comment 138: Section 4.2 Agricultural Best Management Practices acknowledges that agriculture is a potential source of nitrogen to groundwater and surface waters that will be addressed as part of the LINAP process.

Specific reduction targets from agricultural sources to meet various endpoints as appropriate will be determined as part of both the early action and long term actions of the LINAP process. The early actions are expected to do a first order estimation of the contributions from the various nitrogen pollution sources and will establish immediate reduction goals which will be further refined as the more rigorous long term LINAP actions warranted. This process will establish the incremental reductions required from agricultural sources that will then, through the implementation plan require the sources to verify reductions needed are being met.

Section 4.4 Fertilizer Management identifies that fertilizer use at golf courses will be examined, with recommendations made for reductions per the early action and long term actions that will quantify the loading sources and identify reductions needed from all sources**.** To provide more detail, the Final Scope has been modified to include the following sections:

- 4.4.1 Residential Fertilizer
- 4.4.2 Commercial Fertilizer
- 4.4.3 Golf Courses
- 4.4.4 Existing Fertilizer Laws
- 4.4.5 Potential New Regulations regarding Fertilizer Use (eg. Establishment of buffer requirements, adding a fertilizer tax, etc)

Comment 139: Section 4.2 of the draft calls for the development and implementation of agricultural best management practices, which, in turn, will reduce agricultural inputs and limit their potential effects on the environment. In 2014, all nine NYS Superintendents associations collectively developed golf course best management practices, spending nearly $200,000 on BMP development and implementation

Response to Comment 139: This work will be taken into consideration. The Final Scope has been modified to specifically Reference the 2014 BMP document identified in the comment.

Comment 140: Section 4.2 and 4.4 are weak on addressing data collection and studies that will be done with regard to agricultural contributions to nitrogen. Considering that agriculture is a greater source of nitrogen than homes, businesses and so on, more attention should be paid to it and more should be done to alleviate the nitrogen load caused by farming and nursery operations

Response to Comment 140: During the LINAP process, all sources of nitrogen loading will be evaluated. Specific reductions required from agricultural sources to meet various endpoints as appropriate will be determined as part of both the early action and long term actions of the LINAP process. The early actions are expected to do a first order estimation of the contributions from the various nitrogen pollution sources and will establish immediate reduction goals which will be further refined as the more rigorous long term LINAP actions warranted. This process will establish the incremental reductions required from agricultural sources that will then, through the implementation plan require the sources to verify reductions needed are being met.

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- 4.4.3 Golf Courses
- 4.4.4 Existing Fertilizer Laws
- 4.4.5 Potential New Regulations regarding Fertilizer Use (eg. Establishment of buffer requirements, adding a fertilizer tax, etc)

4.3 Density and Land Use Planning

Comment 141: Comments were received that emphasized the need to properly manage development as the plan to reduce nitrogen moves forward.

Response to Comment 141: Section 4.3 Density and Land Use Planning acknowledges that potential impacts associated with development must be considered as part of the Plan.

Comment 142: Section 4.3 Density and Land Use Planning - include a review of state and local wetland permitting requirements that can be used to decrease nitrogen loading. Consider how increased enforcement might reduce nitrogen loading, or lead to requirements to install innovative/alternative sanitary systems

Response to Comment 142: The role of open space preservation (Section 4.9) and coastal wetlands restoration projects (Section 4.10) identifies that the issues described in the comment will be addressed in LINAP.

Additionally, the Final Scope has been modified to include a new section on Riparian Buffers.

Comment 143: A regulatory study and gap analysis is warranted. The plan will need a regulatory study to identify gaps in regulations and zoning, which could potentially lead to the introduction of nitrogen. There are large regulatory differences between the two counties and this is certainly also so among other municipalities.

Response to Comment 143: The Final Scope has been modified to include a section on Regulatory and Policy Review.

Comment 144: Recommendations for density limitations and land use planning should also consider innovative solutions and alternative approaches, such as mass loading, credit for reuse, and code issues, such as equating load to the number of bedrooms/acre

Response to *Comment 144:* The analysis of Land Use Planning alternatives will include such approaches.

Comment 145: The plan does not provide any details regarding how the LINAP will build local capacity to achieve sustainable land use

Response to Comment 145: LINAP is not expected to build local capacity to achieve sustainable land use, rather to present alternatives for land use planning Island and provide local communities with tools to help identify and implement management options to reduce nitrogen loads to waters of Long Island.

Comment 146: There need to be serious discussions about whether Long Island has exceeded the population limits for having a sustainable environment. There is too much pressure from developers and politicians to increase our suburban sprawl and add high-density housing on every bit of open space. Nature needs a place to live also.

Response to Comment 146: The intent of the LINAP is to understand acceptable loadings of nitrogen to the different systems of Long Island based on an understanding of the effect of nitrogen loading to ecological indicators. LINAP will evaluate management options for controlling nitrogen loads to waters of Long Island and will provide local communities with tools to help identify and implement management options to reduce nitrogen loads to waters of Long Island

4.4 Fertilizer Management

Comment 147: The plan should adequately address and aggressively pursue low cost load reductions that can be achieved by eliminating or reducing fertilizer use and promoting green infrastructure.

Response to Comment 147: The Final Scope identifies fertilizer and green infrastructure per Sections 4.4 Fertilizer Management and 4.8 Green Infrastructure

Comment 148: Inclusion in this process and education of commercial providers of secondary sources of nitrates such as fertilizers, phosphates and other contributory chemicals and particulates from residential and commercial sources to further reduce contribution should also be considered

Response to Comment 148: The Final Scope has been modified to include a section on Public Education.

Comment 149: Section 4.4 Fertilizer Management. Consider requiring farmland that is owned by government, or from which the development rights are being purchased to implement a Nutrient Management Plan.

Response to Comment 149: Section 4.4 Fertilizer Management acknowledges fertilizer will be assessed as a management option. Additionally, a work group will be formed to help assess potential action items to mitigate nitrogen from activities which use fertilizer.

Comment 150: Regarding fertilizer management they recommend developing and implementing a targeted behavior change campaign.

Response to Comment 150: The Final Scope has been modified to include a section on Public Education to address the issued identified in the comment.

Comment 151: Comments were received encouraging LINAP to include an investigation of spent grain as a potential source of material for soil enrichment**.**

Response to Comment 151: It is expected that a workgroup will be formed to assess various fertilizer management options such as those identified in the comment.

Comment 152: Comments were received indicating that an evaluation of the effectiveness of the fertilizer laws be included in the Plan and recommendations be made to improve or strengthen the law and enact it in both Suffolk and Nassau Counties

Response to Comment 152: The Final Scope has been modified to include a section on Regulatory and Policy Review to address the issues identified in the comment.

Comment 153: Comments were received suggesting the use of the Suffolk County Environmental Center as a demonstration site for the potential of organic, native landscaping.

Response to Comment 153: It is expected that a workgroup will be formed to assess various fertilizer management options, including the concept of a demonstration site, such as identified in the comment.

Comment 154: Incorporate state agriculture department's great statistics on fertilizer sales by county.

Response to Comment 154: It is expected that a workgroup will be formed to assess various fertilizer management options and to help identify quality sources of data such as identified in the comment.

Comment 155: If fertilizers are to be a focus of the Action Plan, it is important that we closely examine fertilizer data. We recommend this closer look at all available fertilizer data. A cursory look at the fertilizer tonnage data may be inadequate as it shows a dramatic increase in non-farm fertilizer use, which can be misleading to some, as nitrogen is only one component of the overall tonnage number. The State tonnage reporting overseen by the Department of Agriculture and Markets incorporates reporting of non-turf products, including soils and garden fertilizers, as well as products used indoors. These non-turf products vary in size and nutrient content. The State tonnage reporting also incorporates uses on athletic fields, golf courses, and other non-home areas in the non-farm use category. While the State tonnage reporting shows an increase in non-farm fertilizer use, there may not be a corresponding increase in nitrogen use. For example, after a closer review of consumer data, it is clear that the consumer market has seen an increase in soil use, which likely has caused the majority of the reported non-farm tonnage use to increase without a corollary increase in nitrogen. In fact, our internal examination showed nitrogen use from our consumer products has decreased.

Response to Comment 155: DEC believes that a close examination and understanding of fertilizer data is prudent. As the comment was generated from Scotts Miracle-Gro, note that Scotts is included in the LINAP working group.

Comment 156: Comments were received encouraging the Action Plan to focus on the promotion of green infrastructure in both the public and private sectors based on data that demonstrates important role turf and gardens play economically.

Response to Comment 156: Understanding the economic importance of turf and gardens will be considered as the comment suggests, during the LINAP process.

Comment 157: Comments recommended LINAP recognize the role of healthy and well maintained turf in reducing runoff, filtering groundwater and sequestering carbon dioxide

Response to Comment 157: Understanding the economic importance of turf will be considered as the comment suggests, during the LINAP process.

Comment 158: Section 4.4 of the draft implicates golf courses as sources of nitrogen pollution to waterways, asserting they greatly contribute to the total nitrogen loading of impacted estuary. Contradictory to this claim, in the mid-2000s, Marty Petrovic and Bob Portmess from Cornell University found in the Peconic Bay estuaries that golf courses do not significantly contribute to fertilizer pollution.

Response to Comment 158: The Final Scope has been modified to indicate the is a *potential* source of nitrogen that needs to be evaluated. During the LINAP process updated data will be utilized during all evaluations.

Comment 159: The draft conceptual plan seem to suggest that applicators needlessly apply turf grass fertilizers without regard to the law, as statement that is simply not true

Response to Comment 159: The Final Scope has been modified to indicate the fertilizer is a *potential* source of nitrogen that needs to be evaluated.

Comment 160: Golf courses are a vital part of Long Island's economy and our (Long Island Golf Course Superintendent's Association) roles as environmental stewards is just as important as the turfgrass we manage. With best management practices, we have put environmental sustainability at the forefront of our decision-making and however we can help to uphold and better demonstrate our roles, we stand ready

Response to Comment 160: Comment noted.

Comment 161: Comments received encouraged LINAP to proceed with caution as it considers other potential action strategies such as specification of topsoil requirements, fertilizer application rates, use of native species, and use of composted seaweed, to ensure that any recommended strategies are consistent with the recommendations of the Cornell Cooperative Extension Service and the best management practices that are already being employed by golf courses, lawn care professionals and homeowners

Response to Comment 161: It is expected that the LINAP process will identify and consider the existing recommendations and practices identified in the comment.

Comment 162: During the past two years, CCE of SC has worked very closely with the Bureau of Pest Management on the Long Island Pesticide Pollution Prevention Strategy (LIPPPS). CCE of SC has developed pesticide profiles for three pesticides which are of concern in LI groundwater and also have developed factsheets in collaboration with the Bureau and see their role with LINAP being similar to that of our role with the LIPPPS. We at Cornell Cooperative Extension of Suffolk County look forward to working with DEC on developing strategies as part of the LINAP to minimize the nitrate contamination from fertilizers

Response to Comment 162: The Final Scope has been modified to include Cornell Cooperative Extension of Suffolk County to the work group.

Comment 163: Absent any verifiable data on the local impact of fertilizer use on private residences and Golf Courses contributing to the total nitrogen load, we question your immediate assertion in the Conceptual Draft Scope for the Long Island Nitrogen Action Plan. "Depending on the watershed, golf courses can contribute significantly to the total nitrogen loading of an impacted estuary". Please look at the Best Management

Practices Document promulgated with the help of the Long Island Golf Course Superintendents

Response to Comment 163: The Final Scope has been modified to include a reference to the 2014 BMP document identified in the comment.

Comment 164: Contained in the "action plan" on page 25 as other potential additional strategies: "Specification of topsoil requirements, fertilizer application rates, use of native species, use of composted seaweed"; these should be subject to scientific evaluation and expediency studies to determine their relevancy and potential for a significant reduction in the total nitrogen load.

Response to Comment 164: The purpose of the scoping document was to outline the topics and analyses necessary for the development of the detailed draft LINAP as such the Final Scope is only identifying concepts. During the development of the plan the evaluation of potential management actions will be conducted including those identified in the comment.

Comment 165: Any fee structure to discourage fertilizer use would be regressive and arbitrary.

Response to Comment 165: LINAP will evaluate management options for controlling nitrogen loads to waters of Long Island and will provide local communities with tools to help identify and implement management options to reduce nitrogen loads to waters of Long Island.

Comment 166: Perhaps there should be restrictions on fertilizer use in proximity to water bodies so the surface vegetation could absorb some of the nitrogen in the runoff before it gets to the water

Response to Comment 166: LINAP will evaluate management options for controlling nitrogen loads to waters of Long Island and will provide local communities with tools to help identify and implement management options to reduce nitrogen loads to waters of Long Island.

Comment 167: The National Wildlife Federation has a program where you can certify your yard as a Wildlife Preserve. The point is to grow native species so you won't need pesticides or fertilizer or irrigation to have a good looking yard

Response to Comment 167: Comment noted.

Comment 168: Comments indicted that another problem is the use of water, fertilizer and pesticides on home lawns. Encouraging the use of xerotrophic landscaping which would require less maintenance should be encouraged.

Response to Comment 168: LINAP will evaluate management options for controlling nitrogen loads to waters of Long Island and will provide local communities with tools to help identify and implement management options to reduce nitrogen loads to waters of Long Island. It is expected that options associated with the items identified in the comment will be evaluated.

Comment 169: The LINAP should assess whether the growing sales of soil and compost products already amended with fertilizer should be regulated in locations where nitrogen reduction is needed, as those products contains excessive and unnecessarily high nitrogen content than may be needed.

Response to Comment 169: The impacts of fertilizer and fertilizer containing products will be evaluated during LINAP.

Comment 170: Eliminate the use of nitrogen fertilizers on Long Island.

Response to Comment 170: The intent of the LINAP is to understand acceptable loadings of nitrogen to the different systems of Long Island based on an understanding of the effect of nitrogen loading to ecological indicators. LINAP will evaluate management options for controlling nitrogen loads to waters of Long Island and will provide local communities with tools to help identify and implement management options to reduce nitrogen loads to waters of Long Island. Individuals are free to not use fertilizer. Additionally, the Final Scope has been modified to include a section on Public Education.

4.5 Hydro-Modifications

Comment 171: Consideration should be given to developing means of immediate reduction of total nitrate loading remediation as legacy loading is dealt with and phased in over contamination travel times form upland sources. This should include consideration of establishing engineered inlets, tide gates, current controls and tidal exchange controls and flow redirection and other means that increase the ocean-bay water exchange.

Response to Comment 171: Section 4.5 acknowledges that hydro-modifications are a management tool that will be evaluated through the LINAP process.

Comment 172: Related to policy on barrier island breaches is navigational dredging policy. Navigational dredging projects should be evaluated not just for navigation but also for the potential to improve water quality in our bays and harbors

Response to Comment 172: It is the intent of the plan to evaluate all options for mitigating water quality issues due to excess nitrogen and how that relates to flushing time. It is also the intent of this plan to coordinate with other programs and work being done either routine or special project, to ensure efficiencies can be capitalized on.

Comment 173: Section 4.5 Hydro-modifications - this section should include a discussion of the new inlet/breach in the barrier island in Bellport Bay and the water quality benefits that have resulted. Both natural and artificial means for increasing circulation should be examined. Work from other estuaries, such as the Indian River Lagoon in Florida, may provide useful data, concepts and cost information.

Response to Comment 173: The purpose of the scoping document was to outline the topics and analyses necessary for the development of the detailed draft LINAP. The impacts of residence time on all embayments health will be assessed and hydro-modifications as a mitigation plan will be evaluated as part of the management options feasibility and cost effective analysis process during the development of LINAP.

Comment 174: Comments were received indicating that the new inlet should be kept open and an update to the NYS Breach Contingency Plan based on new Science be conducted.

Response to Comment 174: DEC agrees that existing regulations and policy be reviewed during the LINAP process. As such, the Final Scope includes a new section on Existing Regulation and Policy Review to address such issues as the existing Barrier Island Breach Policy and how it could impact management options like hydrodynamic modifications. Hydrodynamic modifications will be evaluated as potential management options in both the early and long term LINAP actions. The effects of the new inlet formed as the result of Superstorm Sandy will be evaluated.

Comment 175: Improve water quality through increased ocean exchange would give the estuaries a head start in recovering in the years and decades before the spigots of pollution could be turned off

Response to Comment 175: The Final Scope includes a section on Hydrodynamic Modification to address the issue identified in the comment. It is acknowledged that system flushing and residence time play significant factors in the health of Long Island embayments.

Comment 176: There is reason to conclude that even with nitrogen pollution under control the Great South Bay and other portions of the South Shore Estuary Reserve will continue to suffer water quality problems resulting from stagnation

Response to Comment 176: The Final Scope includes a section on Hydrodynamic Modification to address issues such as those identified in the comment. It is acknowledged that system flushing and residence time play significant factors in the health of Long Island embayments.

Comment 177: Comments suggested that the State to conduct a comprehensive assessment of options for increasing ocean exchange and tidal flushing in the Great South Bay and other estuaries around Long Island.

Response to Comment 177: The Final Scope includes a section on Hydrodynamic Modification to address issues such as those identified in the comment. It is acknowledged that system flushing and residence time play significant factors in the health of Long Island embayments.

Comment 178: Comments suggest that the Barrier Island Breach Policy be improved. Current state policy requires any breaches that form in the barrier island system to be closed as soon as possible. Yet, as evidenced by the water quality benefits to the eastern reaches of Great South Bay resulting from Bellport Inlet, breaches can mitigate nitrogen impacts and improving coastal water quality in estuaries, even over short-term periods. Recognizing this we urge that the Plan discuss the potential value of barrier island breaches to Long Island's south shore estuaries and recommend the adoption of state legislation which creates a science-based decision making framework for assessing whether or not, and when, a breach should be closed.

Response to Comment 178: The Final Scope has been modified to include a section on Regulatory and Policy Review to address the issue identified in the comment.

Comment 179: Augment Ocean Input – In lieu of new inlets in the South Shore Estuary Reserve, it may be possible to employ engineered solutions to increase the influence of ocean water throughout the estuary. The benefits of the Bellport Inlet might be replicated, perhaps on a smaller scale, in other areas. A recent Newsday article made it clear that others are thinking about such approaches – the paper reported that the Town of Southampton was exploring the possibility of piping ocean water into Shinnecock Bay to improve water quality. We recommend that the LINAP include an exploration of potential of engineered solutions to increase the influence of ocean water in the Great South Bay, perhaps including the implementation of a pilot project to assess possible approaches and to study effects

Response to Comment 179: The Final Scope includes a section on Hydrodynamic Modification to address issues such as those identified in the comment. It is acknowledged that system flushing and residence time play significant factors in the health of Long Island embayments.

4.6 Ecosystem Based Management

Comment 180: The role of shellfish seeding in water quality improvement needs to be discussed.

Response to Comment 180: As suggested by the comment, Section 4.6 Ecosystem Based Management will be modified to include subsections identifying the types of actions to be considers such as shellfish seeding and seaweed farming as examples

Comment 181: Section 4.6 Ecosystem Based Management - It is not clear whether or not this section is intended to include shellfish culture programs. Within this or another section existing efforts to spawn, seed, grow and otherwise return the wild shellfish

population to former levels of abundance, and the effects of those efforts on water quality, should be considered and a program that increases the culture and restoration of shellfish in area waters should be implemented in the near term.

Response to Comment 181: To address the concerns conveyed in the comment, Section 4.6 Ecosystem Based Management will be modified to include subsections identifying the types of actions to be considers such as shellfish seeding and seaweed farming as examples

Comment 182: Restoring habitat is a goal of many different programs and offers a no regret, early action item, especially since many municipalities likely have projects already identified. Additionally, restored habitat offers natural filtration of pollutants from water that travels through them before reaching surface waters

Response to Comment 182: DEC agrees that habitat restoration in an important issue and as such, habitat restoration is covered in many sections of the Final Scope. Additionally, the Final Scope has been modified to include a section on Riparian Buffers.

Comment 183: Riparian buffer area legislation should be considered – further to the point above and as a point to potentially be considered under “simple/broad land use planning regulations” is legislation to protect and/or restore riparian buffer areas along surface waters.

Response to Comment 183: The Final Scope has been modified to include a section on Riparian Buffers to address the issue identified in the comment.

Comment 184: Will the evaluation contemplated under Ecosystem-based management include the impacts of fish, oyster and seaweed farming?

Response to Comment 184: Section 4.6 - Ecosystem Based Management – has been modified in the Final Scope to include subsections identifying the types of actions to be considers such as shellfish seeding and seaweed farming as examples.

Comment 185: Comments indicated that ecosystem-based management, open space preservation, and coastal wetland restoration also be a primary focus of the plan.

Response to Comment 185: All management options will be integrated into finding solutions to the water quality problems and the damage to the ecosystems these problems cause, as well as the problems mis-management of ecosystems, open space and coastal wetlands causes.

Comment 186: Is shellfish bio-extraction being considered as a cost effective management option for nutrient mitigation? Stimulating this industry and putting idle boats and local people to work may be one of the most cost effective methods to work on this problem while we wait for land based infrastructure to catch up.

Response to Comment 186: The Final Scope in Section 4.6 Ecosystem Based Management has been modified to include subsections identifying the types of actions to be considers such as shellfish seeding and seaweed farming as examples as suggested by the comment.

Comment 187: Encourage the use of zoysia grass. Long Island is within the range of this very resistant grass. It requires little to no additional watering except during excessive dry periods. It also will also flourish with little pesticide or fertilizer. The only downside is that it has a shorter period of lush green growth.

Response to Comment 187: LINAP will evaluate management options for controlling nitrogen loads to waters of Long Island and will provide local communities with tools to help identify and implement management options to reduce nitrogen loads to waters of Long Island.

Comment 188: With reference to the use of sea grasses to reduce the nitrogen load in our waters, kelp farming and other grass farming should be included. In addition to reducing Nitrogen, this provides jobs and brings in money from off island through sales of the product

Response to Comment 188: Section 4.6 Ecosystem Based Management has been modified in the Final Scope to include subsections identifying the types of actions to be considers such as shellfish seeding and seaweed farming as examples to address the issues identified in the comment.

4.7 Groundwater Intercept Technologies

Comment 189: The use of PRB's (Protective Reactive Barriers), particularly in areas with both shallow runoff and shallow ground water areas as well as higher population densities may offer an opportunity to reduce the total number of residential advanced septic systems required to reduce total loading and should be part of any reduction plan through watershed nitrate management

Response to Comment 189: DEC agrees that PRB's should be examined. Section 4.7 Groundwater Intercept Technologies does indicate that PBRs will be evaluated as a management option
Comment 190: Include Specific Areas to pilot Groundwater Intercept Technologies, such as the Forge River

Response to Comment 191: Section 4.7 Groundwater Interception Technologies of the Final Scope identifies that these types of technologies, including permeable reactive barriers (PRB), that will be evaluated as a potential management option. The development of a system to prioritize where such technologies could be appropriate will come out of the larger sub-watershed analysis and prioritization process during the development of the LINAP. It is beyond the intent of this scoping document to identify

specific areas to install such technologies. Additionally, there are a number of PRB's being funded and installed through existing programs that will be evaluated as part of the expected work to be done as part of this task.

It is acknowledged that there is expected to be a time lag between management actions like sewering or installation of I/A OSWT systems and "flushing" of contaminated groundwater to embayments and that alternative management actions to more immediately reduce the nitrogen load to the embaymants, or within the water column should be considered.

Comment 192: The discussion in the Draft Scope seems limited to the vertical permeable reactive barriers, but soil-based treatment under a shallow disposal system acts the same way and captures contaminants closer to the source as well as treating for contaminants of emerging concern (pharmaceuticals, etc.) before they hit groundwater

Response to Comment 192: It is the intent of LINAP to look at all viable management options. Horizontal permeable reactive barriers are being evaluated at the SBU Center for Clean Water Protection and will be considered during the LINAP process.

4.8 Green Infrastructure

Comment 193: LINAP should encourage and incentivize Green Infrastructure projects, as well as require projects to quantify and report nitrogen reductions

Response to Comment 193: The Final Scope Section 4.8 Green Infrastructure identifies that green infrastructure as a management option for reducing nitrogen loads will be evaluated. The extent to which allocating funds for incentivizing the use of green infrastructure would be determined as part of the cost effectiveness analysis which will take many factors into account including the relative contribution of a specific loading source and the relative cost of controlling that sources versus controlling other sources.

In places where stormwater is identified as an important source, the control of that source may be considered under the MS4 SPDES General Permit. Additionally, the Final Scope has been modified to include a section on stormwater.

The DEC's Stormwater Design Manual outlines practices that are acceptable for stomwater control. This document is updated periodically to capture new technologies. New technologies not yet incorporated may still be used upon request and review.

4.9 Open Space Preservation and Restoration

Comment 194: Preservation of open space should be part of the plan

Response to Comment 194: The Final Scope includes preservation of open space per Section 4.9 Open Space Preservation and Restoration

Comment 195: Recognizing the challenge of dwindling open space, acquisition and restoration of key large tracts of both undeveloped and developed land needs to be the thrust of such effort

Response to Comment 195: Section 4.9 of the Final Scope will address open space preservation and restoration.

Comment 196: 4.9 Open Space Preservation and Restoration - The potential to restore previously developed properties that are vulnerable to flooding, and that are contributing to the nitrogen problem should be examined. Long term planning should use all available tools, including recommendations for real estate transfer taxes to fund purchases, and the potential to purchase properties at a discount by allowing current owners to reside on and use the property for a period of time after purchase. This tool was successfully used to create the Fire Island Wilderness Area - properties were purchased but the owners were granted 30 years of use before the property reverted to the National Park Service.

Response to Comment 196: The Final Scope identifies that work groups can potentially be formed to address issues (such as those identified in the comment) and help identify what options there are and what has been done by others.

Comment 197: Preserved open space furthers water resource protection by 1) preventing additional development that could contribute contamination to ground and surface waters, 2) providing buffers to reduce pollution impacts to streams and embayments, and 3) in the case of near-shore uplands, by providing room for salt marshes to migrate inland as sea levels rise. In addition, vegetated open space also plays a valuable role in protecting water quality by assimilating atmospheric nitrogen, a significant source of nitrogen to fresh and tidal waters. Given these important functions we urge that an effort be made, as part of the proposed land use analysis that is to be undertaken for each watershed and sub-watershed, to prioritize undeveloped properties for preservation, identifying those along stream corridors and coastlines and overlying important recharge zones, that will help reduce inputs of nitrogen and other pollutants and protect Long Island's overall water quality

Response to Comment 197: The Final Scope has been modified to include a section on Riparian Buffers to address the issues identified in the comment.

4.10 Coastal Wetland Restoration Projects

No substantive comments were received on this aspect of the draft scope.

4.11 Water Re-use

Comment 198: Water reuse is another important area of concern. The infrastructure located at Bergen Point and Bay Park sewage treatment plants is vulnerable to sea

level rise and increased storm intensity. These locations may become untenable for the continued use as sewage treatment plant locations. Water reuse is an important component of an overall wastewater strategy, and offers the benefits of replenishing the aquifers, and preventing saltwater intrusion

Response to Comment 198: Section 4.11 Water Reuse in the Final Scope identifies a task that will update the state water reuse regulations.

Comment 199: Comments were received that indicated that DEC use caution and be realistic when crafting draft regulations and programs regarding water re-use.

Response to Comment 199: DEC will follow the regulatory process for creating new water reuse regulations which include a formal public review and comment period. The creation of new regulation requires a rigorous evaluation of all aspect that the regulations will affect including scientific, economic and social considerations.

It should also be noted that the Final Scope has been modified to include a section on "Other Alternatives for Wastewater Management" which will include various technologies' like grey water separation, composting toilets, etc.

Comment 200: While this feasibility study may be envisioned to be a component of a "draft wastewater plan" that is proposed, we urge that the Department and Council make the commitment to a water reuse feasibility study and make that commitment explicit and clear.

Response to Comment 200: Section 4.11 has identified that Water Re-Use will be evaluated during the LINAP process.

Comment 201: Evaluate the use of pasteurized urine for fertilizer application

Response to Comment 201: The Final Scope has been modified to include an "Other Alternatives" section to evaluate various options for water reuse and technologies such as suggested in the comment.

Comment 202: The Plan talks about water reuse and a study of feasible areas, however, throughout the island, where flush toilets are still in use, greywater can be used instead of fresh water for that purpose

Response to Comment 202: The Final Scope has been modified to include an "Other Alternatives" section to address issues such as identified in the comment.

5 Implementation

Comment 203. A Responsible Management Entity (RME) is needed as a permanent solution to our Long Island water devastation

Response to Comment 203: The intent of the plan is to address water quality issues in the waters of Long Island being impaired by excess nitrogen. Note that, under Suffolk County's Septic/Cesspool Upgrade Program, the County is developing a county-wide RME. The process will help shape the future of what they system will look like.

Comment 204: Need an integrated approach to managing water and wastewater.

Response to Comment 204: The intent of the plan is to address nitrogen pollution by identifying all potential mitigation options available and to give the local governments and citizens the tools to make the most informed management decisions to address this pollution issue.

Comment 205: Abandon sewers totally on a long-term basis. End the approval of cesspools immediately.

Response to Comment 205: We are unsure of the intent of the comment "abandon sewers". The continued (or discontinued) use of cesspools and their effect on waters of Long Island are a significant component to LINAP

Comment 206: Evaluate waterless, composting, urea capture and other alternative systems

Response to Comment 206: The Final Scope has been modified to include an "Other Alternatives" section to evaluate such options as suggested by the comment.

Comment 207: Don't ignore lower cost near term management options like eliminating the use of cesspools, ensuring proper maintenance of onsite systems and replacing deep leaching pits with shallow drain fields (changing policy, codes, practice and enforcement)

Response to Comment 207: The Final Scope has been modified to include a section on Regulatory and Policy Review to address the issues identified in the comment.

Comment 208: In an effort to give the public a sense of the progress being made towards nitrogen reduction, we urge that the scope include a timeline for completion of the short and long-term plans, and that the Final Plan include an implementation schedule, as highlighted in pages 43 and 44 of the Conceptual Draft, containing the expected delivery dates and timeframes for the implementation of various numerous work plan elements and tasks.

Response to Comment 208: The purpose of the scoping document was to outline the topics and analyses necessary for the development of the detailed draft LINAP. Transparency is an important aspect of LINAP and, as such, it is envisioned that a number of work groups and opportunities for further public input throughout the LINAP process will be established.

Comment 209: Consider how mandates that come out of this process will affect municipalities already struggling to meet the requirements of other programs. It appears there may be implications for MS4 communities (specifically called out in Section 2.2) who are already faced with burdensome permit and regulatory changes.

Response to Comment 209: The Final Scope has been modified to include a section on Regulatory and Policy Review and a section on stormwater to address the issues identified in the comment.

Comment 210: Consider evaluating and encouraging the use of the soon to be introduced Green Plumbing Code.

Response to Comment 210: The Final Scope has been modified to include a section on Regulatory and Policy Review to address the issue identified in the comment.

Comment 211: Prioritization should value highest the efforts which avoid nitrogen load, not just remove it after its flowing.

Response to Comment 211: It is the intent of LINAP to identify a variety of management options and allow for local communities to have input into the plans that will work best for them

Comment 212: Prioritization should incorporate value of preserving and protecting existing ecosystem services relative to restoring areas with diminished services

Response to Comment 212: It is the intent of LINAP to identify a variety of management options and allow for local communities to have input into the plans that will work best for them

Comment 213: We need to stop using public funds that encourage developers to build in environmentally sensitive areas. Don't allow utilities and roads to be built in flood zones subject to storm surges. Use zoning laws to keep developers away from the waterfront along rivers, lakes, dunes, and bays. Buy up storm damaged property and return it to public use for parks and wetlands restoration. Change the flood insurance program so it doesn't encourage people to build in flood zones

Response to Comment 213: The Final Scope has been modified to include a section on Regulatory and Policy Review to address issues such as those identified in the comment.

Comment 214: Any serious effort to reduce nitrogen must first address and evaluate past practices including performance of small package stps, grandfathering of density that allow excessive development using conventional systems, clustering developments that produce a point source of nitrogen instead of a manageable input associated with one acre zoning. Without truly evaluating current practices and correcting inefficiencies there can be no net improvement

Response to Comment 214: The Final Scope has been modified to include a section on Regulatory and Policy Review to address issues such as those identified in the comment.

Comment 215: The effectiveness of this plan will require changes to some existing laws (especially where water reuse is concerned), new regulations, changes to health department policies and regulations, and more.

Response to Comment 215: The Final Scope has been modified to include a section on Existing Regulation and Policy Review to address such issues as identified in the comment.

Comment 216: There is a need for regulations and enforcement of existing and new laws and regulations that govern the operation of old and new water treatment plants

Response to Comment 216: The Final Scope has been modified to include a section on Existing Wastewater Treatment Plants to address such issues as identified in the comment.

Comment 217: The plan needs to address mechanisms that will avoid the effects of development on nitrogen in our waterways and groundwater - possibly a moratorium on approval of projects - until the Nitrogen action plan and its related studies are completed

Response to Comment 217: The Final Scope has been modified to include a section on Regulatory and Policy Review to address such issues as identified in the comment.

Comment 218: In the category of land use, there is no building code addressing non-permeable surfaces such as parking lots, rooftops, roadways, and the like. Something should address the run off problem.

Response to Comment 218: The Final Scope has been modified to include a section on Regulatory and Policy Review to address such issues as identified in the comment.

Comment 219: Dredging is an unnatural process that should be looked at. While dredging normally helps to reduce the nitrogen load on a smaller body of water by flushing it, when it is used solely for the purpose of allowing boat access, it should be discontinued

Response to Comment 219: The Final Scope has been modified to include a section on Regulatory and Policy Review to address such issues as identified in the comment.

5.1 Public/Private Partnerships

Comment 220: Regarding the Center for Clean Water Technology - it would be appropriate to include the potential to reduce nitrogen impacts by siting innovative

alternative systems at public facilities such as Jones Beach State Park and Smith Point County Park. This area of review could be part of the mission of the Center for Clean Water Technology

Response to Comment 220: It is anticipated that during the process of developing LINAP, sites will be identified for site specific pilot projects. The overall LINAP process will identity nitrogen loads needed to all of the embayments and plans to reduce the loads will be developed.

5.2 Nitrogen Smart Communities

Comment 221: Recommend using the existing estuary programs to help promote and provide technical guidance on how to be a Nitrogen Smart Community

Response to Comment 221: LINAP is relying on the existing estuary programs to make all of the LINAP activities successful. It is expected that a working group for developing a Nitrogen Smart Community program will be formed.

Comment 222: A number of comments received indicated support for the development of Nitrogen Smart Communities.

Response to Comment 222: The positive comment in support of LINAPs efforts is noted.

5.3 Financing Options

Comment 223: Statewide, dedicated funding must be identified for implementation of remediation under LINAP. Stricter regulations without state funding assistance will create hardship for local communities in the district.

Response to Comment 223: Section 5.3 Financing Options identifies that LINAP will include an evaluation of existing funding sources as well as any other programs with the potential to fund projects that reduce nitrogen.

Comment 224: Funding generated from real estate transactions has proved to be highly effective as a means for accomplishing open space preservation goals on the East End. The Community Preservation Fund should be considered for extension to western Long Island

Response to Comment 224: Section 5.1 Public/Private Partnerships and Section 5.3 Financing Options of the Final Scope are expected to evaluate funding needs and potential sources of funding such as the one suggested in the comment.

Comment 225: Nitrogen action funding needs to be sought from private individuals, corporations and foundations, to supplement public monies

Response to Comment 225: Section 5.1 Public/Private Partnerships and Section 5.3 Financing Options of the Final Scope are expected to evaluate funding needs and potential sources of funding.

Comment 226: Section 5.3 Financing Options should include the potential to add a "clean water" fee to SCWA customer bills

Response to Comment 226: It is anticipated that during the development of LINAP, a workgroup will be formed to help identity traditional and innovative financing opportunities.

Comment 227: Need a more detailed budget projection in the response to the scoping comments

Response to Comment 227: See response to comment 51.

Comment 228: The vast array of incentive programs that can be created must be considered in the context of a change mandate

Response to Comment 228: Potentials for incentive programs will be incorporated into all management options.

Comment 229: Consider the financial burden on municipalities. With municipal tax caps and more regulations, municipalities are already faced with choosing which important programs will be funded and which will be cut

Response to Comment 229: The Final Scope has been modified to include a section on Regulatory and Policy Review to address the issues identified in the comment.

Comment 230: The availability of funding is a pre-requisite for success. The following options are suggested:

- Exempting water quality infrastructure improvements from municipal tax caps
- Creating a dedicated fund through small assessments on water bills or a small increase in sales taxes
- Pushing for a state-wide Clean Water Bond Act

Response to Comment 230: Section 5.3 of the Final Scope indicates that all existing and recommend potential options for funding will be evaluated. It is expected that the suggested options noted in the comment will be evaluated during the LINAP process.

Comment 231: Each homeowner has to be made responsible for their nitrogen contribution to the system this can be achieved through a nitrogen tax. High nitrogen = high tax. Rebates for compostable toilets and conventional lawn removal replaced by native grasses.

Response to Comment 231: LINAP will evaluate management options for controlling nitrogen loads to waters of Long Island and will provide local communities with tools to help identify and implement management options to reduce nitrogen loads to waters of Long Island

Additionally, the Final Scope has been modified to include a section on Public Education to address such issues as identified in the comment.

Comment 232: Fund adequate sewage treatment plants.

Response to Comment 232: Identifying steady streams of funding for all infrastructure projects identified under this process is a component of LINAP. Section 5.3 of the Final Scope indicates that all existing and recommend potential options for funding will be evaluated.

Comment 233: Adequately fund the Region 1 DEC so it can do its job

Response to Comment 233: Funding for DEC is beyond the scope of LINAP

Comment 234: Funds for outfall pipes should be instead used to further upgrade sewer systems. Our waterways and the sea have enough dead spots and some fishermen tell me the fish population is falling and they are going further and further out to sea to catch enough fish

Response to Comment 234: The Final Scope has been modified to include a section on Existing Wastewater Treatment Plants and a section on Regulatory and Policy Review to address such issues as identified in the comment.

5.4 Legal and Governmental Relations

Comment 235: Consideration should be given to assisting local government with modernizing information management and streamlining and clarifying interrelated roles of various actors and agencies.

Response to Comment 235: It is anticipated that an action taken under LINAP will be the development of a GIS/WEB based information management and interactive tool for helping local communities with decision making for implementing LINAP actions.

Comment 236: Regulatory approaches should be considered, such as low density zoning; watershed clearing restrictions; reduction of residential and commercial herbicide spraying and fertilizer application within designated zones;, mandated naturally vegetated buffers; clearing restrictions; native re-vegetation; limitations on landscape irrigation; natural shoreline restoration; and incentives for de-nitrification in critical areas

Response to Comment 236: The Final Scope has been modified to include a section on Regulatory and Policy Review to address the issues identified in the comment.

Comment 237: DEC Needs to Explore Septic Waste Hauler Tracking Regulations

Response to Comment 237: LINAP management actions will focus on legal activities. Illegal activities are an enforcement situation. There are activities currently planned in Suffolk County for training waste haulers and implementing a septic inspection program to be conducted by waste haulers. Nassau County has expressed an interested in adopting many activities Suffolk County is currently in the process of adopting

Comment 238: It is critical that the concerns, suggestions, resources and inherent limitations of local governments be given the utmost consideration in the development of any actions required of them.

Response to Comment 238: DEC agrees that coordination with local governments is critical. To address this issue, the Final Scope has been modified to include a section on Regulatory and Policy Review.

Comment 239: Individual projects compliant with state regulations should be allowed. Currently the County does not allow systems that are approved for installation at the state level

Response to Comment 239: Suffolk County has been delegated authority to implement regulations for all sanitary wastewater treatment systems less than 30,000 gpd. Nassau County is delegated authority to implement regulations for all sanitary wastewater treatment system less than 1000 gpd. The Final Scope has been modified to include a section on Regulatory and Policy Review to address the issues identified in the comment.

Comment 240: Evaluate code issues that counter or obstruct beneficial action

Response to Comment 240: The Final Scope has been modified to include a section on Regulatory and Policy Review to address the issues identified in the comment.

Comment 241: There needs to be an evaluation of the regulatory requirements and processes for the establishment of districts, for these have a huge impact on costs

Response to Comment 241: The Final Scope has been modified to include a section on Regulatory and Policy Review to address the issue identified in the comment.

Comment 242: Clarify the extent to which regulatory enforcement mechanisms will be needed for Plan implementation.

Response to Comment 242: The Final Scope has been modified to include a section on Existing Wastewater Treatment Plants and a section on Regulatory and Policy Review to address the issues identified in the comment.

5.5 Monitoring and Assessment

Comment 243: The nitrogen action plan needs to include a review and discussion of water quality monitoring collected from the Great South Bay, since the opening of the New Fire Island Inlet during Super Storm Sandy, in the interest of exploring opportunities for managed barrier island breaches, as a means of improving bay water quality

Response to Comment 243: The LINAP process will use all relevant data available throughout the LINAP process. Section 2.0 Compile Existing Data also includes a discussion on data collection and use.

Comment 244: LINAP needs a clear tracking and monitoring component

Response to Comment 244: There was a mistake in the numbering in the draft scope with 5.4 being used twice. Monitoring and Assessment has been renumbered 5.5 in the Final Scope. This section specifically addresses the development of a plan and framework for monitoring the success of implementation of LINAP management actions. The format of that plan will most likely be established through the workgroup process.

Comment 245: Efforts must be made to collaborate with existing smaller NGO and municipal programs and provide funding vehicles to help these programs carry out whatever new monitoring is required

Response to Comment 245: The intent of LINAP is to work with local communities and NGOs to help implement LINAP. Additionally, the Final Scope has been modified to include a section on Citizen Science

Comment 246: Friends of the Bay indicated they have an EPA approved QAPP and would like to contribute to a broader, coordinated program of data collection (with added funding)

Response to Comment 246: LINAP is expecting to work collaboratively with all existing groups.
Additionally, the Final Scope has been modified to include a section on Citizen Science.

Comment 247: Consistency across water quality monitoring programs will be a large, but worthwhile undertaking.

Response to Comment 247: The Final Scope has been modified to include a section on Citizen Science to address the issue identified in the comment.

Comment 248: Lots of people have boats. NOAA has a program for collecting data from vessels of opportunity. People with yachts help them out as well as merchant ships. You could do that on a smaller scale here

Response to Comment 248: The Final Scope has been modified to include a section on Citizen Science to address the issue identified in the comment.

6.0 Stakeholder Engagement

Comment 249: Simple consultation with relevant officials in the four towns that constitute the Second Legislative District will provide access to useful and important GIS analysis and other relevant data that will direct attention to specific locations that merit attention as near term action items and provide guidance for prioritization of long-term solutions

Response to Comment 249: The LINAP process will be done in collaboration with local communities. Additionally the Peconic Estuary Program is expected to play a key role in LINAP activities. The working groups will be actively reaching out to local communities for input into the various work tasks that will be undertaken as part of the LINAP process.

Comment 250: The LINAP effort must be accompanied by a comprehensive and aggressive educational campaign regarding threats to drinking water was well as surface water, and the need for funding solutions.

Response to Comment 250: DEC agrees as the comment suggests that an educational campaign is valuable and, as such, the Final Scope has been modified to include a section on Public Education.

Comment 251: The Town of Southampton GIS Dept can provide Land Use and Water bodies, or for that matter any other data necessary to compete this project

Response to Comment 251: As noted in the Final Scope, work groups will be established during the process to identify specific skills/interests with specific tasks. The Town of Southampton (designee) will be invited to participate in various work groups as needed.

Comment 252: Indicate the participants in the Planning Symposium.

Response to Comment 252: The Final Scope indicates that LINAPs development would be guided by a structure that includes and Executive Council, a Project Management and various work groups to be formed to complete specific tasks. The DEC and LIRPC have held a number of public meetings to engage the public in the LINAP process, and will continue to hold public meeting.

Comment 253: Further define "tailored stakeholder engagement programs"

Response to Comment 253: Work groups will be formed to address specific tasks. As an example, a modeling workgroup will be formed to help inform modeling to be used as well as to help disseminate information to keep the public informed of how the Plan is progressing.

Comment 254: Comments were received in support of LINAPs approach to integrate related estuary program efforts into the plan

Response to Comment 255: The positive comment is noted and DEC recognizes the value of the various estuary programs which will be integral to the success of LINAP.

Comment 256: Engage local residents in water quality improvements

Response to Comment 256: The Final Scope has been modified to include sections on Public Education and Citizen Science to address the issue identified in the comment.

Comment 257: Assure that the DEC, SCDHS and the Towns are working together

Response to Comment 257: The LINAP process will be done in collaboration with local communities including both Nassau and Suffolk Counties. The working groups will be actively reaching out to local communities for input into the various work tasks that will be undertaken as part of the LINAP process.

Comment 258: Comments received indicated the need to identify a way for the public to have input to the plan as it develops and to keep informed of developments and progress of LINAP.

Response to Comment 258: Transparency is an important aspect of LINAP and, as such, it is envisioned that a number of work groups and opportunities for further public input throughout the LINAP process will be established. To stay informed on LINAP activities, please visit http://www.dec.ny.gov/lands/103654.html

7.0 Leveraging Related Projects

Comment 259: Mapping of watershed and high nitrate contributing areas has been or is currently underway in Southampton. We would suggest that the mapping efforts by the DEC and other relevant entities be coordinated with our GIS Department in order to establish a current data set and to avoid overlapping efforts and duplicate expenditures

Response to Comment 259: Work groups will be established during the process to identify specific skills/interests with specific tasks. The Town of Southampton (designee) will be invited to participate in various work groups

Comment 260: Section 7.0 Leveraging Related Projects - This section should include water quality benefits of barrier island breaches, and the potential to artificially create those benefits through engineered solutions that may also provide flood protection

Response to Comment 260: The purpose of the scoping document was to outline the topics and analyses necessary for the development of the detailed draft LINAP. The impacts of residence time on all embayments health will be assessed and hydro-modifications as a mitigation plan will be evaluated as part of the management options feasibility and cost effective analysis process during the LINAP process. Additionally, Section 4.5 Hydro-Modifications includes a discussion on this topic generally.

Comment 261: LINAP should integrate the Plan with the EPAs LI N Strategy by seeking clear, early regulatory endpoints and the ultimate use of authority under the federal CWA to further reduce nitrogen loads from sewer treatment plants discharging to embayment's and harbors.

Response to Comment 261: DEC agrees that LINAP should be coordinated with EPAs LI N Strategy. Regarding WWTFs, the Final Scope has been modified to to include a section on Existing Wastewater Treatment Plants

Comment 262: Follow the EPA's integrated planning approach to setting priorities for investments in nitrogen reductions among wastewater treatment facilities, storm water areas and combined sewer overflows

Response to Comment 262: DEC agrees that LINAP should be coordinated with EPAs LI N Strategy. The intent of LINAP is to evaluate all management options and help local governments and communities with developing, or providing the tools for them to develop management plans that will meet the necessary reduction targets.

Comment 263: Comments received indicated that there may be opportunities to combine efforts.

Response to Comment 263: The intent of LINAP is to work collaboratively with existing organizations and to compliment, rather than duplicate, efforts. Throughout the LINAP process there will be engagement with existing organizations through work groups as appropriate.

Comment 264: The Scope provides no insight into how the LINAP will leverage related projects, which is a substantial gap in the document.

Response to Comment 264: One of the first tasks is to gather information on related projects that have been done or are underway to maximize LINAP. Furthermore, the intent of LINAP is to work collaboratively with existing organizations and to compliment, rather than duplicate, efforts. Throughout the LINAP process there will be engagement with existing organizations through work groups as appropriate.

7.1 Plan Preparation

No substantive comments were received on this section

Appendices

Comment 265: The GANNT Chart in the appendices does not appear to include an island-wide evaluation of onsite wastewater treatment practices in its “No Regrets management tools section”

Response to Comment 266: The Final Scope has been modified to include a section on the Stony Brook University Center for Clean Water Technology.

Comment 267: The Gantt chart and schedule is already out of date, and seems on its face not to be achievable. For example, one of the first tasks (Section 2.0) that appears to be scheduled over a 4 month period is to compile existing and what I know to be a substantive amount of data including spatial data. But the discussion (2.1.1) suggests that there is not yet even a framework for sharing information nor is the data seemingly mounted in a manner that will allow a wide range of users to start utilizing the data in the first quarter of the project

Response to Comment 267: The Final Scope includes an updated Gantt chart. Moving forward, the Gantt chart will be modified as the process evolves.

Comment 268: It is hard to discern from the Gantt chart or the text, what the specific milestones or deliverables are for this planning effort.

Response to Comment 268: The Final Scope includes an updated Gantt chart. Moving forward, the Gantt chart will be modified as the process evolves.