Nitrogen Smart Communities Activity List

Nitrogen Smart Communities (NSC) is a Long Island Nitrogen Action Plan (LINAP) program that encourages municipalities in Nassau and Suffolk counties to take meaningful and effective actions to reduce, prevent or eliminate nitrogen pollution in Long Island's waters through community-specific plans of action.

Below is a list of activities that can be utilized to effectively reduce, prevent, or eliminate nitrogen pollution within a municipality.

The activities are suggestions to be discussed within the municipality by the coordinator and the NSC Advisory Taskforce to determine which would be best to implement. The list includes best management practices and protection methods organized by source of nitrogen pollution – wastewater, fertilizer, stormwater, agriculture, atmospheric deposition, and other. Each activity has a designated point reward to be earned by the municipality upon completion. Activities implemented up to five years prior to adopting the NSC pledge can also be used to earn points.

This is not a comprehensive list and a municipality may conduct other activities that are appropriate to their unique nitrogen sources. If an activity that the municipality would like to implement is not included on the below list, please email liwaterquality@dec.ny.gov and include on the subject line **"[Municipality Name] Additional Activity"** to determine the point rewards to be earned on an individual basis.

Municipalities are encouraged to implement as many activities across priority sources of nitrogen as possible, as well as execute two or more categories of strategies - Education/Outreach, Projects, and Regulation. The municipality cannot earn additional points for the same Education/Outreach activity being implemented more than one time (i.e., a monthly educational workshop focusing on the same topic will only earn 1 point in total).

In addition to municipality-lead activities, partnership activities/programs with other municipalities or groups within the municipality are encouraged. A municipality must demonstrate substantial involvement in the activity in order to earn points (participation on a board, a resolution of support, staff resources, etc.).

Wastewater Activities

It has already been determined which homes are connected to a public sewer, served by a decentralized cluster system, or on septic systems. The nitrogen inventory detailed in the Step 3 Worksheet and the GIS map can be used as a reference when planning wastewater activities.

Septic Systems	Points
Develop and distribute outreach and educational materials that explain nitrogen pollution linked to sanitary waste (from conventional cesspools and septic systems) and actions to reduce its impacts. Template outreach and educational materials will be provided by DEC and LIRPC.	1
Conduct outreach and education for **residential properties** about Innovative/Alternative (I/A) Onsite Wastewater Treatment Systems (OWTS) grant program and the need to replace cesspools and conventional septic systems. Template outreach and educational materials will be provided by DEC and LIRPC.	1
Conduct outreach and education for **businesses and commercial properties** about I/A OWTS grant program and the need to replace their conventional septic system. Template outreach and educational materials will be provided by DEC and LIRPC. Note - it is important to be informed about grant limitations when planning outreach.	1
Replace cesspools and conventional septic systems on **municipal properties**, including parks, with I/A OWTS. • *Point rewards for this activity will be determined on an individual basis and will be based on project details (I.e., size of municipality, number of septic systems replaced, etc.). Please email* liwaterquality@dec.ny.gov *and include on the subject line* ***"[Municipality Name]" Point Rewards*** *to have your activity reviewed and designated a point reward.*	1-4
In coordination with your county's septic system grant program, create a local grant program to encourage residents to replace cesspools and conventional septic systems with I/A OWTS.	4
For Nassau County only, policy change requiring the replacement of conventional septic/cesspool systems with a I/A OWTS systems at the time of new construction or major reconstruction.	4
Policy change requiring the replacement of conventional septic/cesspool systems with a I/A OWTS systems at time of system failure.	4
Policy change requiring the replacement of conventional septic/cesspool systems with an I/A OWTS systems at the time of property transfer.	4

Public Sewers	Points
Feasibility study to determine if there is extra capacity at the wastewater treatment facility that would allow for additional parcels to be connected to the sewer system. It may be necessary to determine the total effluent and average amount of nitrogen the plant discharges annually.	3

• *Suffolk County has conducted feasibility studies for some facilities in the county. Points will only be awarded if the study is municipality led.*	
Connect homes and businesses in priority areas which are currently on septic systems and/or cesspools to the existing public sewer system. • *Point rewards for this activity will be determined on an individual basis and will be based on project details. Please email* liwaterquality@dec.ny.gov *and include on the subject line* ***"[Municipality Name]" Point Rewards*** *to have your activity reviewed and designated a point reward.*	2-4
Inspect sewer collection systems for leaks.	2
Perform repairs after identifying leaks on sewer collection system to prevent untreated wastewater from entering groundwater.	4
To help address wastewater operations and future repairs, prepare an asset management plan for municipal wastewater treatment facilities and the municipal sewage system. For more information, see NYSDEC's resources on Municipal Sewage System Asset Management at: https://www.dec.ny.gov/chemical/101412.html	4
Update or construct wastewater treatment facilities to enhance nitrogen removal.	4

Decentralized Cluster Systems or Appendix A Systems	Points
Connect homes and businesses which are currently on septic systems and/or cesspools to decentralized cluster systems. • *Point rewards for this activity will be determined on an individual basis and will be based on project details. Please email* liwaterquality@dec.ny.gov *and include on the subject line* ***"[Municipality Name]" Point Rewards*** *to have your activity reviewed and designated a point reward.*	2-4

Marine Pumpout Services	Points
Assess (or reassess) the need for marine pumpout services in the municipality.	2
Install new onshore pumpout stations where they are most needed. Or, if need be, relocate existing onshore pumpout stations.	2
Make upgrades (repairs or renovations) to existing pumpout stations.	2
Offer mobile pumpout service where it is most needed. Operate during peak boating times and adjust hours of services, as needed, throughout the boating season. • *The municipality cannot earn additional points for providing the same service more than once.*	2

Water Reuse	Points
Feasibility study to explore water reuse options, e.g., using treated effluent to irrigate golf course turf. For more information, visit DEC's water reuse webpage: https://www.dec.ny.gov/lands/120987.html	3

Implement water reuse options, e.g., using treated effluent to irrigate golf course turf. For more information, visit DEC's water reuse webpage: https://www.dec.ny.gov/lands/120987.html	4
Collaborate with local businesses on other water reuse-related actions, i.e., other irrigation projects or urine diverting systems.	2

Note: Funding for wastewater treatment activities is typically available through the Water Quality Improvement Project (WQIP) Program or through the Environmental Facilities Corporation (EFC). For more information, visit DEC's WQIP (https://www.dec.ny.gov/pubs/4774.html) and EFC's Grant Program webpage (https://www.efc.ny.gov/grant-programs).

Fertilizer Activities

The Step 3 Worksheet documenting the fertilizer source analysis can be used as a guide when planning activities. The municipality can also become familiar with LINAP's *Recommendations for Fertilizer Nitrogen Applications for Residential and Commercial Turfgrass*. The LINAP recommendations are the most comprehensive in the nation and call for the lowest nitrogen application rates and a high percent of slowly available nitrogen in the fertilizer. The recommendations will minimize the amount of nitrogen leaching to groundwater. Implementing these recommendations will prevent hundreds of thousands of pounds of nitrogen from entering Long Island's waters.

Fertilizer	Points
Provide education and outreach about fertilizer use for **residential properties**, following LINAP's *Recommendations for Fertilizer Nitrogen Applications on Residential and Commercial Turfgrass*. Template educational materials will be provided by DEC and LIRPC. See the NYSDEC NSC webpage for additional information.	1
Provide education and outreach about fertilizer use for **commercial and institutional properties**, following LINAP's *Recommendations for Fertilizer Nitrogen Applications on Residential and Commercial Turfgrass*. Template educational materials will be provided by DEC and LIRPC. See the NYSDEC NSC webpage for additional information.	1
A community outreach and education campaign designed to encourage reducing fertilizer use. Ideas could include educational materials available at community events, educational workshops, customized mailings for residents or businesses, mass emails, promotional flyers, participation in local fairs and farmers markets, and leveraging the municipality's social media and website. Template educational materials will be provided by DEC and LIRPC.	1
Reduce or eliminate fertilizer use on **municipal-owned properties**. Follow LINAP's *Recommendations for Fertilizer Nitrogen Applications on Residential and Commercial Turfgrass*.	2
Enact a fertilizer law restricting fertilizer usage and quantity applied on **municipal-owned properties**. Follow LINAP's *Recommendations for Fertilizer Nitrogen Applications on Residential and Commercial Turfgrass*.	4
Enact a fertilizer law restricting fertilizer usage and quantity applied on residential and commercial properties. Follow LINAP's *Recommendations for Fertilizer Nitrogen Applications on Residential and Commercial Turfgrass*.	4

Enact recommended list of best management practices for landscaping industry. Follow LINAP's *Recommendations for Fertilizer Nitrogen Applications on Residential and Commercial Turfgrass*.	4
Enact water-friendly irrigation practices. Using less water on residential, commercial, and municipal lawns can help to reduce runoff which can carry fertilizer into streams, lakes and bays. Follow LINAP's *Recommendations for Fertilizer Nitrogen Applications on Residential and Commercial Turfgrass*.	4
Create a "no pick-up of grass clippings" policy or ordinance. Keeping grass clippings on the lawn helps to replenish the nutrients in the soil and therefore lessen the need for fertilizer. Without the option of curbside pick-up, homeowners and landscapers will be encouraged to leave clippings on their property (as mulch on the lawn or for the compost pile).	4
Provide education and outreach about low input landscaping and promoting its benefit to residential and commercial sectors. Low-input lawn care practices involve reducing or eliminating fertilizer and pesticides (mainly weed and insect killers) that are applied to lawns. Template outreach and education materials will be provided by DEC and LIRPC.	1
Require low-input landscaping/lawn care practices on **municipal-owned properties.** These low-input practices are a natural fit with native plants that are already adapted to the local environment.	2

Stormwater Activities

Many Long Island municipalities are required to manage their stormwater because they have a municipal separate stormwater sewer system or MS4 permit. They have a state stormwater discharge permit commonly referred to as the MS4 permit. Therefore, in addition to utilizing the information detailed in the Step 3 Worksheet, it may be helpful to review the municipality's MS4 permit which requires development of a Stormwater Management Program (SWMP). The six required program components of a SWMP, or the six minimum control measures (MCMs) are listed below. For more information about the MCMs, visit the DEC's MS4 Toolbox webpage.

1. Public Education and Outreach
2. Public Participation/Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-construction Runoff Control
6. Pollution Prevention/Good Housekeeping

Stormwater	Points
Educate commercial property owners on the need to reduce stormwater flow and encourage them to install retrofits to infiltrate the stormwater on their property, e.g., rain gardens (bioswales), riparian buffers, detention basins, and other green infrastructure. Template education and outreach materials will be provided by DEC and LIRPC.	1-4
Enact policies to preserve and protect riparian buffers on municipal properties. For more information about riparian buffers, visit Riparian Buffers - NYS Dept. of Environmental Conservation.	4

Enact ordinance requiring pet owners to pick up after their animals. Post signage and provide bags and waste receptacles at dog parks and other areas where people frequently walk their dogs.	4
Provide education and outreach about stormwater pollution and municipal management of stormwater for **residential properties**. Template education and outreach materials will be provided by DEC and LIRPC. For more information, visit the NYSDEC MS4 Toolbox (https://www.dec.ny.gov/chemical/8695.html).	1
Provide education and outreach about stormwater pollution and municipal management of stormwater for commercial and institutional properties. Template education and outreach materials will be provided by DEC and LIRPC. For more information, visit the NYSDEC MS4 Toolbox (https://www.dec.ny.gov/chemical/8695.html).	1
A community outreach and education campaign designed to encourage community action through speaking engagements or workshops to help the residential and/or commercial sectors take advantage of resources to better manage stormwater runoff and reduce stormwater pollution.	1
Develop stormwater practices and prioritizing those that are efficient in capturing nitrogen.	1-4
Hire a full-time stormwater coordinator	4
Create municipality-specific educational materials (printed hand-outs or social media presence) related to fertilizer runoff. Printed template educational materials will be provided by DEC and LIRPC.	1
Label storm drains to educate and remind people not to dump pollutants or other materials into storm drains which channel into local water bodies. For example, labels could read "Don't Dump, Drains to Bay".	1

Agriculture Activities

Agriculture	Points
Municipality to work with select farms, in conjunction with Soil and Water Conservation Districts and Natural Resources Conservation Service (NRCS), to create a comprehensive conservation plan for their farm or at a minimum, adopt best management practices on their farm using planning and design resources from Agricultural Environmental Management (AEM) program.	2
Municipality to provide financial incentives to local farmers to implement their AEM Plan. For information about state-level funding opportunities, visit this NYS webpage: https://certified.ny.gov/funding-opportunities	3
For Nassau County only, municipalities to pay for soil testing for farms in order to evaluate, monitor, and educate farmers about soil health on their farm to facilitate adoption of healthy soil practices. Suffolk County SWCD is currently offering free soil health testing and may be a resource.	2
Conduct an outreach and education campaign to inform and encourage farmers to participate in the Soil Health Equipment Loan Program (Soil HELP). The goal of the	1

program is to assist farmers in conserving and improving soil health long-term by offering conservation-oriented agriculture equipment.	
Host events for farmers to encourage the adoption of best management practices on their farms.	1

Atmospheric Deposition Activities

Municipal governments can choose from a variety of actions that can decrease emissions of nitrogen oxides, a greenhouse gas, that contribute to atmospheric nitrogen deposition, a source of the nitrogen that is polluting our coastal waterbodies.

Climate Smart Communities (CSC) is a NYS program that can be used as a resource which supports local governments in leading their communities to reduce greenhouse gas emissions, adapt to the effects of climate change, and thrive in a green economy. For a comprehensive list of actions that reduce greenhouse gas emissions and help communities adapt to the effects of climate change, please visit (https://climatesmart.ny.gov/actions-certification/actions/).

The following activities are from the Climate Smart Communities program. A municipality can get credits in both programs by completing the Atmospheric Deposition activities.

Atmospheric Deposition	Points
Clean Energy Upgrades: Clean Energy Upgrades are defined as energy efficiency and renewable energy projects in local government facilities, according to the CSC Certification Program. Facilities are one of the largest sources of greenhouse gas (GHG) emissions, including nitrogen oxides which contribute to atmospheric nitrogen deposition, in government operations inventories. Integrating energy efficiency and renewable energy into government facilities can reduce GHG emissions and save taxpayer money. State programs can help get these projects accomplished with no or low up-front cost. For more information, visit: Actions (ny.gov). • *Point rewards for this activity will be determined on an individual basis and will be based on project details (I.e., size of municipality, number of septic systems replaced, etc.). Please email* liwaterquality@dec.ny.gov *and include on the subject line* ***"[Municipality Name]" Point Rewards*** *to have your activity reviewed and designated a point reward.*	2-4
Solar Energy Installation: By displacing energy from fossil fuel sources, the use of solar energy reduces air pollution and greenhouse gas emissions, including nitrogen oxides which contribute to atmospheric nitrogen deposition. Solar photovoltaic panels transform solar radiation into electricity and are appropriate for many types of public facilities, including schools and public buildings. Solar hot water systems (also known as solar thermal systems) use roof-mounted solar collectors that rely on the sun's energy to produce hot water in buildings. When local governments install solar technologies, they increase the demand for renewable energy and set a positive example for residents	2-4

and businesses in the community. For more information, visit: https://climatesmart.ny.gov/actions-certification/actions/#open/action/49 • *Point rewards for this activity will be determined on an individual basis and will be based on project details (I.e., size of municipality, number of septic systems replaced, etc.). Please email* liwaterquality@dec.ny.gov *and include on the subject line* ***"[Municipality Name]" Point Rewards*** *to have your activity reviewed and designated a point reward.*	
Fleet Inventory: It is important for local governments to have complete, accurate information about the vehicles they own and operate, according to the CSC Certification Program. Such information provides a basis for making informed choices about municipal fleet management. By creating a fleet inventory and updating it on a regular basis, local governments can identify, for example, which vehicles are the least fuel-efficient and develop a plan to replace them with vehicles that serve the same function but are more efficient. In general, good fleet management improves efficiency, reduces greenhouse gas emissions (including nitrogen oxides which contribute to atmospheric nitrogen deposition), and saves taxpayer money. For more information, visit: https://climatesmart.ny.gov/actions-certification/actions/#open/action/147 • *Point rewards for this activity will be determined on an individual basis and will be based on project details (I.e., size of municipality, number of septic systems replaced, etc.). Please email* liwaterquality@dec.ny.gov *and include on the subject line* ***"[Municipality Name]" Point Rewards*** *to have your activity reviewed and designated a point reward.*	2-4

Other Activities

Other	Points
Bioextraction: Nutrient bioextraction utilizes shellfish and seaweed aquaculture to remove excess nutrients that could lead to water quality impairments that harm marine life. The coordinator of the Nutrient Bioextraction Initiative should be contacted if the municipality chooses to implement a bioextraction-related project. For information about the Nutrient Bioextraction Initiative, visit: http://longislandsoundstudy.net/our-vision-and-plan/clean-waters-and-healthy-watersheds/nutrient-bioextraction-overview/. • *Point rewards for this activity will be determined on an individual basis and will be based on project details. Please email* liwaterquality@dec.ny.gov *and include on the subject line* ***"[Municipality Name]" Point Rewards*** *to have your activity reviewed and designated a point reward.*	2-4

Open Space Protection: Municipal governments can make use of local planning and land use controls to protect and preserve open space which can play an important role in protecting and improving water quality. The following are examples of open space protection actions: • State legislation, enacted in 1989, authorizes cities, towns, and villages to establish transfer-of-development rights programs specialized form of zoning that can help to conserve open space. • Cluster developments. • Planned unit development, in conjunction with subdivision approvals. • Purchase land or place a conservation easement on property to prevent future contamination or to target restoration actions. Conservation easements can be used as a tool to implement best management practices to control runoff from existing land uses.	4

Once awarded Gold Status Certification, the municipality must re-certify bi-annually on the date originally certified by submitting an updated Plan and Schedule (Step 4, Action 4.4 Worksheet). This list should include both completed, on-going, and newly planned nitrogen reduction activities.