Long Island Nitrogen Action Plan (LINAP) Newsletter

Spotlight on Stormwater Management: Town of East Hampton and Village of Sag Harbor

In this edition of the LINAP newsletter, we highlight the impressive work being done in the Town of East Hampton and Village of Sag Harbor to address stormwater runoff. Click here to read yesterday's newsletter on how stormwater runoff effects Long Island's water quality.

Stormwater Projects Revolutionize the Town of East Hampton's Environmental Future

Kimberly Shaw, Environmental Protection Director, and Mellissa Winslow, Principal Environmental Analyst, from the Town of East Hampton shared insights into their ongoing stormwater projects, reflecting the Town's dedicated efforts to manage runoff and foster community engagement.

One of the standout initiatives highlighted by Kimberly and Mellissa is the ambitious project at South Lake Montauk, an area facing severe water quality issues which led to the permanent closure of the lake's beach in 2005. The project aims to revitalize the area by employing multifaceted stormwater reduction strategies and infrastructure improvements. These include minimizing impervious surfaces and implementing a dry stream bed to improve stormwater infiltration and reduce runoff from entering the lake. Invasive species have overrun this area and will be removed and replaced with native plants. Additionally, grant money was extended to homeowners on the eastern side of the lake and a neighboring restaurant to facilitate their shift to Innovative/Alternative Onsite Wastewater Treatment Systems- nitrogen reducing septic systems- showcasing the Town's multilayered approach to water quality improvement.

"The goal is not just remediation; it's revitalization," Kimberly stressed. "In our approach to stormwater projects, it's just not a singular action. Our primary aim is to maximize our efforts. We really wanted to target this entire area to try to do as much as we can to improve water quality."

Proposed Lake Montauk Revitalization Plan. The restoration efforts include reducing impervious parking, utilizing permeable pavement and a dry stream bed to limit runoff, removing invasive species, introducing native plants, and extending grant money for IA OWTS implementation in nearby properties. Photo Credit: Town of East Hampton.

Another revitalization project, the Louse Point Road Stormwater Abatement Project, reflects the Town's dedication to environmental care and community well-being. Severe erosion near the inlet had damaged the north sand dune affecting parking and walking areas. Through careful redesign, excess pavement was removed, and native plantings were introduced, preserving scenic views of Accabonac Harbor and Gardiner's Bay. The parking area was restructured with a berm to redirect stormwater to a permeable section created with crushed quartz gravel, ensuring both improved water quality and the area's aesthetic appeal.

Louse Point Road Parking Area before and after. Impermeable asphalt was replaced with crushed quartz gravel to drain and filter stormwater. Photo Credit: Town of East Hampton

A significant project in the works involves stormwater mitigation at the Route 27 Rest Stop. "There's a huge volume of stormwater coming down Route 27 and it enters directly right into Talmage Creek and Georgica Pond," explained Mellissa.

The project site is situated on Department of Transportation (DOT) property and involves a broad collaboration consisting of DOT, the Village of East Hampton, Friends of Georgica Pond, and the Peconic Land Trust. The plan involves implementing rain gardens, permeable pavement, a boat launch restoration, and inlet structures to manage stormwater runoff.

"We're also planning an 'end-of-pipe' constructed wetland to treat stormwater that flows into Georgica Pond, through a stormwater pipe installed in the 1930s," explained Mellissa. "We assessed the pipe's condition using internal cameras and found that the pipe's in decent shape. Our assessment also pinpointed areas where stormwater accumulates, suggesting ways to reduce pressure on the pipe by capturing runoff in the upland and treating it before it reaches the pond."

The proposed constructed wetland will serve as a final defense to improve stormwater quality before it enters Georgica Pond. This system will feature micro pools for settling and native plants to absorb nutrients. Construction is anticipated to start in 2025.

Community engagement has emerged as a cornerstone for many of the ongoing projects. Kim acknowledged the pivotal role played by organizations like the Peconic Estuary Protection Committee and Surfrider Foundation. "We collaborated with Surfrider on two significant bioswale retention areas at Methodist Lane and James Lane. These bioswales are not only functional but visually stunning year-round," Kim emphasized.

To ensure the long-term success of these projects, maintenance and rigorous monitoring are key. "Our approach involves comprehensive monitoring protocols and maintenance plans designed to continually evaluate and enhance the impact of each of our initiatives. And it's in our outreach model to get students involved," stressed Mellissa. At Methodist Lane,

maintenance extended to the schools, engaging students in hands-on activities like pruning and debris removal while educating them about the project's significance.

Despite the triumphs, Mellissa acknowledges the challenges posed by rising groundwater levels and intensified storms, necessitating adaptive strategies to effectively manage stormwater and combat flooding. "These challenges reinforce our resolve to continue to find robust, effective solutions. Adapting to these shifts remains a priority," said Mellissa.

The comprehensive approach adopted by the Town East Hampton toward stormwater management underscores the town's dedication to environmental restoration, community involvement, and sustainable practices. These projects serve as models of innovation and progress in environmental stewardship shaping a more resilient and eco-friendly future.

Sag Harbor Water Quality Improvement Project Plan: A Blueprint for Sustainable Stormwater Management

Uniquely located within the Towns of East Hampton and South Hampton, the Village of Sag Harbor has made stormwater management a priority to protect and revitalize its waterbodies and ecosystems at the local level. We sat down with Mary Ann Eddy, a member of the Sag Harbor Water Quality Initiative and the Harbor Committee, to learn about the ongoing efforts reshaping the waterfront landscape and offering a blueprint for effective stormwater management, and fostering a community deeply committed to preserving their natural surroundings.

Reflecting on pivotal moments, Mary Ann recalls Sag Harbor's call to action. "In 2015, the Village adopted a stringent code to protect our waterfront, working to ensure that water remains on-site and preventing runoff into the bay and coves." The Village of Sag Harbor Chapter 285 aims to reduce harm to wetlands and bluffs using land-use regulations that focus on preserving natural vegetation and buffer zones. It requires property owners to obtain permits for any construction on properties within 150 feet of natural areas like wetlands, water and beaches.

Furthering its commitment, the Village hired a consultant in 2016 to design a Water Quality Improvement Project Plan to identify and rank by effectiveness, water quality improvement projects within the Village of Sag Harbor. The plan provided locations, feasibility, and cost estimates of potential projects to address non-point source pollution with the use of green infrastructure improvements. These projects were then subsequently modeled and ranked by the cost per pound of nitrogen removed. The result was a "blueprint" with roughly 20 projects addressing stormwater runoff.

The Village's initial strides from this "blueprint" involved creating two rain gardens at Havens Beach through a Peconic Estuary Partnership grant. Mary Ann shares the common wisdom about rain gardens, "At first, they sleep, then they creep, then they leap. Now in their fourth year, these gardens have flourished."

Similar initiatives have begun across Sag Harbor. One project Mary Ann highlights is the community-centric effort in the historic neighborhood of Azurest on the Easthampton side of the Village. Rain gardens are going to be installed in the 'right of ways,' which are typically unused areas between the street and the homeowners' properties. Contractors have been hired to install the rain gardens. After an initial upkeep period by the contractors, homeowners will take responsibility for maintaining these gardens, promoting community involvement.

"Rain gardens aren't just flower beds; they're powerful solutions," Mary Ann emphasizes. "One of the challenges is to really have people understand that rain gardens work. They are simple. They are beautiful, and they don't cost a ton of money. People think of them as just a garden, but they are really workhorses. We need to change the perception of what rain gardens are and what they do."

In addition to installing rain gardens, the Village of Sag Harbor in collaboration with the Town of Southhampton has set in motion a long-envisioned project of revitalizing Round Pond. Round Pond is nestled within the Long Pond Green Belt, an expansive area of coastal plains, wetlands, and woodlands, covering over 800 protected acres. The initiative removed a dilapidated bulkhead and over 100 feet of roadway. In place of the roadway, 1,500 native plants were planted. The plantings function as a filter and act as a barrier capturing larger particles in the stormwater runoff. A regraded slope drops from the new edge of the pavement to the pond and a 12-foot-wide path of permeable pavers provides access for visitors.

The revitalization also includes an innovative stormwater capture and filter system, utilizing native plantings with rock rubble, a retention area, and a bioswale. The system is designed to handle both a light and heavy rainfall. For example, a quarter-inch rainfall would stay in the retention area that is full of native plants. In heavier rain, that retention area will overflow into a second retention area also filled with native plantings. In much heavier rain, the retention areas will overflow into the channeled depression of a bioswale. The stormwater in the bioswale would eventually discharge into the pond, but it has been filtered and is substantially cleaner than it would have been without the plantings.

Round Pond before and after. This undertaking, a triumph for the Village, Town, and Pond will curtail erosion issues while contributing positively to stormwater management. Photo Credit: Mary Ann Eddy.

Even with the advancements made, Mary Ann recognizes the challenges presented by the impact of climate change and the increased frequency of severe storms. Adapting to these changing conditions remains a focus for the Village. “The torrents of January stormwater unfortunately swept away numerous late fall plantings at Round Pond. They will be replaced,” said Mary Ann.

As Sag Harbor navigates its path toward sustainability, the aspiration remains—to champion pragmatic solutions, and unite the community in safeguarding the environment.

The stormwater management initiatives in East Hampton and Sag Harbor epitomize the power of community-driven environmental action. Insights from Kimberly Shaw, Mellissa Winslow, and Mary Ann Eddy highlight how innovation and collaboration can reshape the connection between communities and their environment. These ongoing projects serve as examples of sustainable stormwater practices, offering a blueprint for other communities aiming to embark on a similar path toward a greener and more sustainable future.