

Long Island Nitrogen Action Plan (LINAP) - Monthly Newsletter

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Long Island Water Quality Challenge 2021 - 2022

STEAM competition invites middle and high school students to join the effort to tackle nitrogen pollution. Letters of interest due on **January 10, 2022**.

The Long Island Regional Planning Council (LIRPC) in coordination with the New York State Department of Environmental Conservation (NYSDEC) announces the third annual Science, Technology, Engineering, Art and Mathematics (STEAM) Challenge related to the Long Island Nitrogen Action Plan (LINAP).

The goal of this initiative is to connect students, teachers, and their communities to the overall LINAP initiative. And combining all five disciplines of STEAM is a way to have a more well rounded student.

The Challenge invites teams of students from Long Island middle and high schools to develop and design projects for their school grounds which will either reduce the use of fertilizers/pesticides and water consumption, or devise methods to collect and treat stormwater runoff from the school property and incorporate those projects into ongoing educational programs.

A panel of local and state experts assess the teams on originality, innovation, quality of ideas, visual design, technical merit, and team collaboration. Grants are awarded to the top proposals.

The 2021-2022 STEAM Challenge launched on October 12, 2021 with letters of interest due on **January 10, 2022**. To receive more information about the <u>Long Island Water Quality Challenge</u>, and to submit a Letter of Interest, visit <u>lirpc.org</u>, email <u>ecole@lirpc.org</u> or call 516-571-7613.

Past Winners

Accompsett Middle School and Cutchogue East Elementary School were the first schools to be awarded grants to be used for the implementation of their winning proposals.

At the Accompsett Middle School, students proposed a native plant and pollinator garden for the front entrance of the school, which will serve as an ongoing "classroom" for both middle school and elementary school students on how native plants and natural pollinators, such as birds and bats, can reduce the need for nitrogen fertilizer, pesticides or overwatering.



\$5000 grant awarded to the Accompsett Middle School, Winner of the 2019-2020 Long Island Water Quality Challenge (Photo Credit: LIRPC)

At Cutchogue East Elementary School, the students collaborated to research stormwater treatments to minimize pollution into the Peconic Bays. They created a design and plan for implementation for a biorentention area on the campus, which will use soil, plants and microbes to treat stormwater before it is infiltrated or discharged.



\$5000 grant awarded to the Cutchogue East Elementary School--Winner of the 2019-2020 Long Island Water Quality Challenge. (Photo Credit LIRPC)

The 2020-2021 STEAM Challenge top winners came from Sanford H. Calhoun, New Hyde Park Memorial, Sewanhaka and Commack High Schools. The proposals included plans to implement educational programming, the installation of rain gardens, permeable pavement, biosorbent filtration systems, rain barrels with filters, and low input agriculture. Each of the teams from these schools will receive \$2500 to implement part of their proposals. The teams are in the process of developing their designs, budgets, maintenance plans for the project and plans for how the projects will be incorporated into lesson plans and engagement with the larger community. Once the plans are approved, the grants will be awarded.



Sewanhaka Middle School Proposal: Sawdust and Biochar: The Implementation of Biosorbents in Wastewater Filters: This winning proposal will improve school storm drains by adding a filtration system, using two types of biosorbents: sawdust and biochar.



New Hyde Park Memorial High School proposal: An Enhanced Stormwater Treatment System at New Hyde Park Memorial High School. This winning plan directs rainwater to rain barrels with a Jellyfish Filter where contaminants including particulate-bound pollutants such as nitrogen and phosphorus are filtered out. Under the rain barrels, suction pumps will push the water from the rain barrels into pipes directed into dry wells. (Contech, Stormwater-Management, Treatment, Jellyfish-Filter)