



PECONIC LAND TRUST



Cornell University
Cooperative Extension
of Suffolk County

Media Advisory

For Release 3/9/2015

Noank Aquaculture Cooperative, Peconic Land Trust, National Grid Foundation And Cornell Cooperative Extension of Suffolk County Partner on Research Initiative to Improve Water Quality in the Peconic Estuary

Noank Aquaculture Cooperative (Noank), a cooperative of shellfish farmers working in the waters of the Peconic Estuary, has been generating funding through a unique marketing program to support research efforts to identify specific causes of algae blooms that are having negative impacts on shellfish in the Peconic Estuary. Funds raised by Noank, in partnership with the Peconic Land Trust, and the National Grid Foundation, enabled Cornell Cooperative Extension researchers to conduct a demonstration project of equipment used to identify and quantify nitrogen entering into Peconic Bay via groundwater seepage. If widely applied, information gained could aid in making management decisions regarding how best to address water quality issues threatening the shellfish industry. Findings will be presented in Summer 2015.

The shellfish farming industry has grown in leaps and bounds in recent years. Most of the growth has taken place in the Peconic Estuary (“Peconics”) thanks to the Suffolk County Aquaculture Lease Program, which provides commercial aquaculture operations access to publicly owned underwater lands to conduct shellfish cultivation. This growth has been good for the local economy and helps uphold our local maritime heritage, but the industry relies heavily on adequate water quality conditions in order to ensure shellfish thrive and can eventually be brought to market. The Peconics, where many shellfish farms exist, have recently and historically been plagued by algae blooms, which are harmful to shellfish. Nitrogen from non-point sources is a major concern when it comes to degraded water quality conditions and the prevalence of harmful algal blooms, and has been identified as an issue that needs to be addressed. For this reason, Suffolk County Executive Steve Bellone has focused on reducing nitrogen in our bays – but this is a costly endeavor. As a way to help focus efforts and resources to address this issue, the Noank Aquaculture Cooperative has been working with the Peconic Land Trust to collect money from the sales of their “Peconic Pearls” oysters for projects that benefit the Peconic Estuary. This past fall the National Grid Foundation matched the funds Noank was able to generate through premiums on oysters sold, tours, and donations. These resources were directed to Cornell Cooperative Extension on Suffolk County researchers to conduct a study to determine where nitrogen is entering the bay, and in what quantity.

Until now, no one has been sampling the groundwater where it enters the bay to determine both the concentration of nitrogen through flow rate. Using patented technology, Cornell Cooperative Extension of Suffolk County’s Marine Program was able to locate where the groundwater was entering the bay at three different sites throughout the Peconic Estuary. Then, a specialized funnel-like device was deployed offshore and left for a complete tidal cycle to take water samples and measure the flow of fresh water as it entered the bay. The sampling will be completed at the end of the month, and findings will be presented in a study to be released in Summer 2015.

Through the study, the hope is to determine the rate at which nitrogen is entering the bay at various sites and determine which areas contribute the most pollution from groundwater. These could be the areas we first concentrate on when working to reduce the impact of land use on the estuary. This technology, if proven successful in this application, could be used in all of our estuaries to determine where the hot spots are for groundwater impacts on our surface waters. The results will be presented in detail in the months ahead. For more information about the project, please contact Kimberly Barbour at 631-727-7850 ext. 329 or kp237@cornell.edu.

About Noank Aquaculture Cooperative: The Southold Branch of the Noank Aquaculture Co-Op began operating out of the Peconic Land Trust's Shellfisher Preserve in Southold, New York in 2003. The members grow oysters, hard clams and bay scallops in the pristine waters of the Peconic Bay Estuary. Proceeds from the sale of their "Peconic Pearls" has been dedicated to projects that benefit the estuary. More information at peconicpearls.com

About Peconic Land Trust: The Peconic Land Trust, a 501(c)(3) nonprofit organization, was established in 1983 by John v.H. Halsey and a small group of local residents to ensure the protection of Long Island's working farms, natural lands, and heritage. More information at www.peconiclandtrust.org

About The National Grid Foundation: The National Grid Foundation is a non-profit charitable organization dedicated to enhancing the quality of life, economic strength and environmental stewardship in National Grid's service territory. More information at nationalgridfoundation.com

About Cornell Cooperative Extension of Suffolk County's Marine Program: The Marine Program, which became part of Cornell Cooperative Extension of Suffolk County in 1985, is known and respected nationally and internationally. Its mission is to protect our waters, providing a clean environment for our fish, fowl and plants. More information at www.ccesuffolk.org/marine

Cornell Cooperative Extension is funded in part by Suffolk County through the office of the County Executive and the County Legislature. Cornell Cooperative Extension in Suffolk County provides equal program and employment opportunities.

Photo Credit: Cornell Cooperative Extension of Suffolk County

Caption: Cornell Cooperative Extension Marine Program Researchers deploy monitoring equipment in efforts to collect samples of groundwater seepage for analysis.

