



Cultivating Clean Water:

Leveraging Farm Bill Funding To Aid Suffolk County Farmers in Protecting Water Quality



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Over 30 years ago, a group of people committed to farming and conservation from across America came together to establish American Farmland Trust - the first and only national organization dedicated to saving America's farmland. American Farmland Trust's mission is to protect farmland, promote sound farming practices and keep farmers on the land.

American Farmland Trust has united farmers and environmentalists in developing practical solutions to save farmland and protect the environment. We work from the 'kitchen table to the Congress' – tailoring solutions that are effective for farmers and communities and can be magnified to have bigger impact. Since our founding, American Farmland Trust has helped save over five million acres of farmland and led the way for adoption of conservation practices on millions more.

American Farmland Trust's national office is in Washington, D.C. with a network of field offices across America where farmland is under threat. American Farmland Trust established its New York Field Office in 1990 as the state was home to some of the most threatened farming regions in America.

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Executive Summary

Farming in Suffolk County is a critical component of the region's identity and economy. Farmers are also an ally in addressing critical concerns about protecting drinking water as well as Long Island Sound and the Peconic Estuary from high levels of nitrogen. While there are many sources of nitrogen – including sewage treatment plants, septic systems, fertilizer applications by homeowners and other sources – there are opportunities to engage farmers in taking further steps to address their share of these important environmental concerns.

For decades, Suffolk County has been a national leader in working with farmers in the protection of land and other natural resources. The recently adopted Agricultural Act of 2014, also known as the Farm Bill, authorizes a new Regional Conservation Partnership Program (RCPP) that could provide new federal resources to engage Suffolk County farmers in doing their part to address regional water quality problems.

RCPP was created to address environmental problems through partnerships operating on a regional or watershed scale to aid groups of farmers in adopting conservation practices. RCPP is authorized to receive almost \$1.3 billion through the United States Department of Agriculture's Natural Resources Conservation Service (NRCS) over the next 5 years. Funding received through RCPP is expected to be matched with non-federal funds to provide technical and financial assistance to farmers in adopting conservation practices.

There are three avenues available to access RCPP funding: 1) projects of state significance, 2) projects of national significance, and 3) projects in critical conservation areas as determined by USDA. An application for RCPP funding from Suffolk County or the broader Long Island Sound watershed could be highly competitive if appropriate steps are taken.

One approach to an RCPP initiative in Suffolk County and the broader Long Island Sound watershed would be to aid farmers in 'conserving the soil to protect the water'. Such an approach would prioritize aiding farmers in adopting soil health practices and the permanent protect of farmland from real estate development as a means to reduce nitrogen losses from farmland and protect water quality. Such an integrated initiative would: 1) draw on Suffolk County's national leadership in permanently protecting farmland and ongoing needs for additional resources to purchase agricultural conservation easements, 2) incorporate soil health practices that are a national priority for NRCS and are valuable to Suffolk County farmers to enhance soil fertility and aid in adaptation to severe weather patterns and 3) address concerns regarding high nitrogen levels in ground and surface water.

This report describes the proposed RCPP program, including RCPP funding and funding categories, and makes 9 recommendations for action to improve the region's competitiveness in securing RCPP funds to aid farmers in doing their part to address regional water quality concerns while sustaining a viable agricultural economy in Suffolk County.

Introduction

Agriculture has been, and continues to be a major component of the identity and economy of Suffolk County. Suffolk County is ranked first in New York for its annual sales of more than \$255 million in farm products from 34,000 acres of farmland - one of the smallest concentrations of farmland in the state. The county's more than 50 wineries, farm stands and scenic views provided by farmland are closely connected with the region's \$4 billion tourism industry.ⁱ

Suffolk County also has a unique environment as it is surrounded on three sides by water, including major waterbodies such as the Long Island Sound and Peconic Estuary. Drinking water for the county's roughly 1.5 million residents is generated from a sole source aquifer. These waterbodies have experienced or are vulnerable to high levels of nitrogen that threaten the health of humans, plants and animals.ⁱⁱ

In 1994, the Long Island Sound Study indicated that roughly 53,700 tons of nitrogen were entering Long Island Sound each year as a result of human activity, leading directly to hypoxia that threatened plant and animal species. More than 80% of nitrogen is generated by point sources, such as sewage treatment facilities.ⁱⁱⁱ However, the updated Long Island Sound Study of 2010 also states,

"Nonpoint sources of pollution also contribute nutrients to Long Island Sound via land and river runoff... Present inorganic fertilizer application practices and poor distribution of animal wastes on croplands may result in over-fertilization of some fields. The excess fertilizers may run off the land into the surface waters or be transported in the groundwater to nearby streams. Eventually the streams will transport the nutrients to Long Island Sound. Fertilizer added to soil already containing enough nutrients to support the crop to be grown may wash away with runoff or leach into the groundwater."

By contrast, over 80% of the total nitrogen load in the Peconic Estuary comes from non-point sources and is primarily attributable to residential fertilizer and sanitary systems, coupled with agricultural fertilizers.^{iv}

Suffolk County and farmers on Long Island have long been national leaders in the protection and stewardship of farmland. In 1974, Suffolk County became the first government in America to pay farmers to permanently protect their land from real estate development. Today, approximately 15,000 acres of the remaining 34,000 acres of farmland in Suffolk County have been permanently protected by Suffolk County, towns such as Southold, Riverhead, Brookhaven, Southampton and East Hampton as well as the Peconic Land Trust.^v

In 2004, the Suffolk County Legislature adopted legislation to provide funding through the Suffolk County Water Quality Protection Fund for Cornell Cooperative Extension of Suffolk County to develop and implement a voluntary program to address the leaching of nitrogen fertilizer and pesticides into groundwater. Since then, Cornell Cooperative Extension's

Agricultural Stewardship Program has provided farmers with research, education and on-farm demonstration projects to address environmental issues related to agriculture's use of nitrogen fertilizer and pesticides. Suffolk County's Soil and Water Conservation District and USDA NRCS also play critical roles in leveraging state and federal resources to assist farmers in planning and implementing conservation practices to protect water quality and address other natural resource concerns.

In 2012, Cornell Cooperative Extension of Suffolk County and American Farmland Trust launched a partnership to help Suffolk County farmers accelerate their use of conservation practices to reduce nitrogen entering ground and surface water. In its first phase, this partnership has accelerated sweet corn and potato farmers' use of Controlled Release Nitrogen Fertilizer, a new technique that allows farmers to reduce their use of nitrogen by at least 20%. Through this project, American Farmland Trust and its private partner, Agflex, have adapted our national *BMP Challenge* program to eliminate financial risk as a barrier to farmers' adoption of controlled release nitrogen fertilizer.^{vi}

Achieving substantial reductions in nitrogen use presents challenges for farmers. While adoption of conservation practices can lead to reductions in nitrogen entering groundwater and surface water, conservation practices can have high installation and/or maintenance costs for farmers, as well as risk (or perceived risk) of losses in yield or crop quality. These concerns are particularly acute for Suffolk County farmers producing high value specialty crops that may generate thousands of dollars per acre in gross revenue. Barriers cited by farmers in adoption of conservation practices include:

- Capital cost of adoption
- Risk of adoption
- Ongoing operating cost of adoption
- Lack of information
- Regulatory compliance
- Labor costs
- Inability to finance
- Bureaucratic obstacles
- Land ownership issues
- Lack of interest^{vii}

On December 19, 2013, Cornell Cooperative Extension of Suffolk County and other partners organized a Nitrogen Stewardship Meeting with farmers. Participating farmers identified other barriers to adoption of conservation practices aimed at addressing nitrogen concerns, including:

- Need more information/research
- Practices are not practical/feasible
- Practices are too expensive

This report explores strategies to leverage federal resources from the Regional Conservation Partnership Program (RCPP) to address such concerns by Suffolk County farmers and help them take further steps to safeguard the region's water while sustaining a strong and viable agricultural sector. Included in this analysis are an analysis of the proposed RCPP in the recently passed Farm Bill, description of two primary strategies for securing RCPP funding and

recommendations for possible action by farmers, conservation organizations, public agencies and others to pro-actively take steps to tap into these new federal resources.

New National Program – Regional Conservation Partnership Program

The Agricultural Act of 2014, also known as the 2014 Farm Bill, authorizes federal spending of \$956 billion over 10 years through a broad suite of nutrition, farm, conservation and rural development programs. Total conservation spending authorized in the Agricultural Act of 2014 is \$57.6 billion over 10 years.^{viii}

Included in this conservation funding are resources for the Regional Conservation Partnership Program (RCPP), a fresh approach for addressing conservation challenges through partnerships that can design and implement projects that include multiple agricultural operations on a regional or watershed scale.

Through RCPP, partner organizations bring together groups of farmers to address priority resource concerns through specific conservation practices. Participating producers can receive cost share assistance for those practices through NRCS. In this manner, assistance can be targeted by partners at the most pressing resource concerns and where assistance can have the greatest benefit.

RCPP aims to achieve the conservation, restoration, and sustainable use of soil, water, wildlife, and related natural resources on suitable land on a regional or watershed scale. It encourages partners to work with producers to satisfy or avoid the need for natural resource regulations related to agricultural production. This would be accomplished by implementing projects that engage multiple operations on a local, regional, state, or multi-state basis.

The kinds of projects envisioned in this program are diverse. They include water quality improvements (such as nutrient management and sediment reduction), the conservation of surface and groundwater (including improvements to irrigation systems or conversion of irrigated cropland to less intensive water use), drought mitigation, flood prevention, water retention, habitat conservation, erosion control, and forest restoration (including recovery of threatened and endangered species, improving biodiversity, and carbon sequestration).

Specific conservation practices that may be applicable to Suffolk County farmers and could be funded through RCPP include:

- Purchase of agricultural conservation easements
- Nutrient management
- Cover crops
- Conservation tillage
- Pest management
- Well water testing
- Riparian buffers and filter strip

USDA would work with partners on RCPP projects. Partners could be units of state or local governments, soil and water conservation districts, an association of producers (including

farming or forestry producer groups), tribes, farmer coops, higher education institutions, municipal water or wastewater authority, or an organization with a history of working with producers on conservation issues on farmland.

Using a competitive process, USDA would select projects proposed by these partners and then enter into partnership agreements with selected organizations for up to five years in length in order to implement a regional or watershed based conservation project. Partners would submit the application with information about the project (scope, activities to be implemented, operations affected, geographical area, and project plan) and conduct outreach and education to producers concerning the project.

Partners would also contribute funds and other resources to the project and do an assessment of the project's effects, and finally report to USDA on the results of the project. The partner is expected to contribute a significant portion of the overall costs of the scope of the project. Together, USDA and the partners hope to best address priority resource concerns in an effective manner.

Farmers Protect Clean Drinking Water for Millions of New Yorkers

For more than a century, New York City residents have obtained more than 90% of their drinking water from reservoirs and streams in the Catskill region. Much of this water flows through farmland, and area farmers have long had to accommodate downstate demands for water.

In 1989, the federal Safe Drinking Water Act was going to force New York City to filter its water to reduce the possibility of contamination. A filtration plant for city water could cost between \$3 billion and \$8 billion to build and hundreds of millions of dollars per year to operate.

To avoid these costs, New York City initially proposed a draft watershed management plan that would have banned such practices as applying manure or fertilizer within 100 feet of a water way. A survey found that such regulations would have forced farmers to retire as much as 35% of their land to comply with the regulations and would have resulted in farmers selling their land to developers. Watershed farmers contended that the proposed regulations were too stringent and that it was to the city's advantage to keep farmland in farming rather than being converted to development that generated more pollutants.

Subsequently, a task force established by the Department of Agriculture and Markets recommended the development of a voluntary local program to help farmers design and implement 'whole farm plans'. These plans would address farm environmental stewardship holistically, keeping farmers' economic objectives in mind.^{ix}

"I never thought that farmers would be working with the environmental community to make the environment better. This has taken me totally by surprise. But, I think it is important, timely and a benefit to everyone."
– Fred Huneke, former Catskill dairy farmer and Chair of the WAC Council of Directors, 1998.

New York City and the EPA agreed that the whole-farm program could effectively meet the criteria of watershed regulations and the Watershed Agricultural Council (WAC) was formed in 1991 to implement the program. The original goal was to achieve an 85% participation rate among watershed farmers, which has been surpassed with 96% of large farms having whole farm plans as of 2009.

Between 1992 and 2012, New York City invested \$116 million and leveraged an additional \$23 million in state, federal and private funds to aid farmers in the development and implementation of whole farm plans. Through 2009, the implementation of whole farm plans has resulted in the construction and installation of more than 5,000 Best Management Practices on farms across the watershed.^x

As an extension of the whole farm program, WAC worked with American Farmland Trust to develop an agricultural conservation easement program to permanently protect farmland from development. In 1998, New York City's Department of Environmental Protection provided the first funding for this program. By 2012, the program had permanently protected 114 farms encompassing 22,000 acres at a cost of \$30 million.^{xi}

In 2013, the Watershed Agricultural Council celebrated its 20th Anniversary and the partnership between farmers and New York City residents to sustain agriculture and clean drinking water for 9 million people. The impact has been clear: New York City residents have received 1.1 billion gallons of clean water a day, 365 days a year, for 20 years...a total of 8-quadrillion gallons of clean drinking water or enough to fill over 12 million Olympic-sized swimming pools!

RCPP Funding^{xii}

A significant amount of Federal funding has been authorized for use in RCPP projects by the Agricultural Act of 2014. RCPP funding includes a base level of funding as well as an allocation from USDA NRCS for RCPP projects of seven percent of funding or acreage provided for in certain conservation programs. These include:

- Environmental Quality Incentive Program (EQIP)
- Conservation Stewardship Program (CSP)^{xii}
- Agricultural Conservation Easement Program (ACE)
- Healthy Forest Reserve Program (HFRP)

Below is a summary of average RCPP allocations per year from 2014-2018 and total allocations for RCPP from 2014-2018:

	2014	2015	2016	2017	2018	Total 2014-18
RCPP	\$100 Million	\$100 Million	\$100 Million	\$100 Million	\$100 Million	\$500 Million
EQIP	\$94.5 Million	\$112 Million	\$115.5 Million	\$115.5 Million	\$122.5 Million	\$560 Million
ACEP	\$28 Million	\$29.75 Million	\$31.5 Million	\$35 Million	\$17.5 Million	\$141.75 Million
CSP	\$12.6 Million	\$12.6 Million	\$12.6 Million	\$12.6 Million	\$12.6 Million	\$63 Million
HFRP	\$.84 Million	\$.84 Million	\$.84 Million	\$.84 Million	\$.84 Million	\$4.2 Million
Total	\$235.94 Million	\$255.19 Million	\$260.44 Million	\$263.94 Million	\$253.44 Million	\$1.269 Billion

There are three avenues available to access RCPP funding: 1) projects of state significance, 2) projects of national significance, and 3) projects in critical conservation areas as determined by USDA. Collectively, considerable funding would be available for worthwhile projects that are selected through the competitive process established by USDA.

Project Category	% of Total Funding	Key Decision-Makers
8 Critical Conservation Areas	35%	Secretary of Agriculture, USDA
Nationally Significant	40%	Secretary of Agriculture, USDA
State Significant	25%	State Conservationist/ State Technical Committee

Funds from USDA for approved RCPP projects are paid directly from USDA to participating producers for the application of conservation practices on their land consistent with the project design and as determined in a conservation plan for the operation. USDA expects to leverage Federal funding with funding from partners and other sources in order to best address resource concerns. Project partners with the ability to leverage resources from interested constituencies and organizations will be more competitive in securing RCPP funds.

Process for RCPP Funding and Projects

Partners would be responsible for developing and submitting to NRCS an application for RCPP funding. It would convey to NRCS in a narrative form the priority resource concerns, objectives, and expected outcomes for the project. The application would need to include the following^{xiii}:

- A statement concerning scope of the project, including the area covered, the practices to be implemented, the kind and amount of agricultural operations affected, and the work activities to be conducted;^{xiv}
- A plan for monitoring, evaluating, and reporting on progress made towards achieving the project's objectives;^{xv}
- The program resources requested for the project, including the covered programs to be used and estimated funding needed from USDA (see p. 5 for covered programs);
- The partners collaborating to achieve project objectives, including their roles, responsibilities, capabilities, and financial contribution to the project;
- An identification and description of partners and their capabilities.

USDA would review and rate each project application following a set of criteria that would help indicate the possible ranking of the application compared to others. It can be expected that USDA will give higher scores to applications that provide the following:

- Assist producers in meeting or avoiding the need for a natural resource regulation;
- Significantly leverage non-Federal financial and technical resources and coordinate with other local, State, regional, or national efforts;
- Deliver high percentages of applied conservation to address conservation priorities or local, State, regional, or national conservation initiatives;
- Provide innovation in conservation methods and delivery, including outcome-based performance measures and methods;
- Provide innovation in the improvement and delivery of water quality or quantity, including outcome-based performance measures and methods.
- Have a high percentage of producers in the area to be covered by the agreement;
- Complete the application of conservation practices or activities on all of the covered program contracts or cost-share agreements in five years or less;
- Provide for monitoring and evaluation of conservation practices and enhancements;
- Include benefits for energy conservation or mitigating effects of climate change;
- Provide outreach to beginning farmers or ranchers, socially disadvantaged farmers or ranchers, and Indian Tribes within the project area; and
- Other factors important for achieving the purposes of the program.

RCPP is designed as a two-pronged approach to addressing a priority resource concern: First, a project agreement is developed and executed between NRCS and the project partners at the local level. The partners develop the project, carry out the outreach to producers, identify and rank producers that agree to participate in the project and apply the proposed conservation treatments on their land, and undertake the monitoring and evaluation of the project's effectiveness.

Working together, partners can develop plans to carry out an effective outreach, education, and implementation project that can capitalize on financial and technical assistance from NRCS. Help is available from NRCS for information on alternative solutions to identified resource problems. Practices found to be most helpful can be identified together with fact sheets and technical standards and specifications for effective implementation.

Second, NRCS would enter into contracts with participating producers to share in the cost of implementing the designated conservation practices on the producer's land. In this manner, the partner(s) facilitate and coordinate the targeting of conservation assistance to the places and agricultural operations that can be the most effective to addressing the natural resources concern—in this case the nitrogen entering surface water such as Long Island Sound or leaching into the ground waters that are an important water supply aquifer serving Suffolk County.

USDA has authority to adjust selected program rules where needed to better achieve the conservation purposes of the program. This adjustment authority does not apply to appeals, payment limitations, and conservation compliance.

Relevance for Suffolk County and Long Island Sound Watershed

Groups in Suffolk County and the broader Long Island Sound watershed could look to partner with USDA to leverage significant RCPP funding to address nitrogen concerns in groundwater and surface water bodies such as Long Island Sound and the Peconic Estuary. It also offers an opportunity to address related resource concerns such as improving soil health and protecting farmland from real estate development to improve farm productivity and resiliency in the face of severe weather and a changing climate through applied conservation systems. Pursuing a broad suite of soil health practices that reduce nitrogen losses from farmland would likely improve the viability of a project in pursuing NRCS funds given the agency's emphasis on soil health.^{xvi}

There are a number of factors that could make an RCPP application from Suffolk County and/or the broader Long Island Sound competitive. First, more than 9 million people live in the Long Island Sound watershed and millions more visit the region each year for recreation and tourism. Similarly, concerns about high nitrogen levels in drinking water have the potential to impact the health of Suffolk County's roughly 1.5 million citizens, roughly 8% of the state's population. Thus, the benefits of farmers' efforts to protect water quality in the region would be enjoyed by significant numbers of people.

Second, Long Island Sound and the Peconic Estuary have been designated as estuaries of national significance and the region has been identified by NRCS as being worthy of designation as a focused Regional Partnership. Therefore, farmers efforts would help protect critical ecosystems that are under threat.

Third, it is possible to leverage technical and financial assistance from local, regional and state organizations operating in Suffolk County with an interest in water quality. These include partners such as Cornell Cooperative Extension of Suffolk County's Agricultural Stewardship Program, Suffolk County Soil and Water Conservation District, Long Island Farm Bureau, National Fish and Wildlife Foundation, Suffolk County Water Authority, Stony Brook University, Suffolk County Department of Health and others. The capacity of partner organizations to conduct monitoring of wells and other field research systems may also be helpful for the monitoring and evaluation of outcomes of a RCPP project.

Additionally, Suffolk County, as well as towns including Brookhaven, Southold, Riverhead and Southampton and the Peconic Land Trust, as well as neighboring states in the Long Island Sound watershed, such as Connecticut, have well-established farmland protection programs that ensure that farmland under permanent agricultural conservation easements will remain available for agricultural use in perpetuity. This would mean that practices implemented under a RCPP project would continue over a long time frame—much more so than if the land were subject to conversion to non-agricultural use. Further, since the land will continue in agricultural use, it makes it especially important that suitable conservation systems be applied in order to protect surface and ground waters. These programs could also offer matching funds for an RCPP project with an agricultural conservation easement component.

Fourth, Suffolk County ranks number one in New York in total value of agricultural products sold. The county also ranks first statewide in the value of sales for aquaculture and for nursery, greenhouse, floriculture and sod. It ranks third in the value of vegetables, melons, potatoes, and sweet potatoes. These and the other areas of agriculture in the county indicate a vibrant sector that can flourish in this setting, but will need to address water quality issues or risk regulatory requirements.

Fifth, legislation pending in the New York State Assembly and Senate demonstrates the potential for further local or state regulation to protect groundwater that could have a significant impact on Suffolk County farmers. One of RCPP's funding considerations is to assist producers in meeting or avoiding the need for a natural resource regulatory requirement.

Finally, Suffolk County has a slightly higher proportion of women, Asian, and Hispanic-speaking farmers than other counties in New York. These producers may be considered socially disadvantaged and therefore, if key to achieving project objectives, may merit priority consideration for the project agreement proposal. The relatively high proportion of small farms in the area may also qualify.

It is anticipated that there will be strong competition for RCPP funds, including from other regions of New York. New York is home to several large watersheds of regional or national significance that have received focused attention from NRCS in the past. These high visibility regions often have multiple states and partners and could be significant competition for Suffolk County and Long Island Sound, including:

- Chesapeake Bay watershed, including the Chesapeake Bay Watershed Initiative^{xvii}
- Great Lakes watershed, including the Great Lakes Restoration Initiative^{xviii}
- Lake Champlain watershed, including the America's Great Outdoors Initiative pilot in the Lake Champlain Watershed^{xix}

Given the potential for strong state or national competition, it is important that consideration be given to the most viable strategy for leveraging RCPP funding – designation as a project of state significance or national significance.

1. Projects of State Significance

Twenty-five percent of RCPP funds will be available for projects selected by state conservationists with the advice of their State Technical Committee (STC). STCs serve in an advisory capacity to the NRCS and other USDA agencies. They are chaired by NRCS State Conservationists in each state and are composed of representatives from Federal and State natural resource agencies, American Indian Tribes, agricultural and environmental organizations, and agricultural producers.^{xx}

New York's State Conservationist is Don Pettit, who is based in NRCS's State Office in Syracuse, and oversees the New York STC that includes representatives of the USDA Farm Service Agency, US National Fish and Wildlife Service, New York State Department of Agriculture and Markets, New York State Department of Environmental Conservation, Cornell University College of Agriculture and Life Sciences, New York Farm Bureau, New York Association of Conservation Districts, American Farmland Trust and others.

2. Projects of National Significance and Projects in Critical Conservation Areas

The second path of opportunity for RCPP funding is designation as a project of national significance or USDA Critical Conservation Area. Such a designation for a single county is unlikely given the national scale of competition but is possible for the broader Long Island Sound Watershed and Peconic Estuary.

In 1987, Congress designated Long Island Sound (LIS) as an estuary of national significance. The LIS Watershed begins at the headwaters of the Connecticut River on the Quebec border and encompasses 17,814 square miles in six states (CT, MA, VT, NH, NY, RI) and Quebec and is home to more than 9 million people. An estimated \$8.5 billion in economic activity is annually generated in relation to water transportation, recreation, aquaculture and other businesses associated with LIS.^{xxi}

In 2012, NRCS announced the creation of the Long Island Sound (LIS) Watershed Partnership to improve water quality in the Sound and its tributaries and restore and protect fish and wildlife habitats through conservation on private agricultural lands.^{xxii} The priorities of this multi-state partnership include:

- improving conservation opportunities for private agricultural and forest landowners,
- ensuring more sustainable agriculture,
- creating healthy aquatic environments for shellfish and finfish production,
- restoring and protecting wildlife habitat, and
- maintaining and restoring hydrologic and ecological functions within the watershed.^{xxiii}

Similarly, the National Fish and Wildlife Foundation's (NFWF) Long Island Sound Futures Fund supports projects in local communities that aim to protect and restore the Long Island Sound. It unites federal and state agencies, foundations and corporations to achieve high-priority conservation objectives. Since 2005, NFWF's Long Island Sound Futures Fund has invested \$10.5 million in 262 projects in communities surrounding the Sound. NFWF manages the Long Island Sound Futures Fund in partnership with the Long Island Sound Study through U.S. EPA's Long Island Sound Office. Major funding for the program is provided by the U.S. Environmental Protection Agency, Long Island Sound Study, U.S. Fish and Wildlife Service, and USDA Natural Resources Conservation Service.^{xxiv} Funding priorities for this program include:

- Urban Waters: assist communities, especially underserved communities, to access, improve, and benefit from their urban waters and the surrounding land
- Clean Waters and Healthy Watersheds: plan and implement Low Impact Development (LID) and green infrastructure or green street projects
- Restore and Protect Habitat, and Conserve Wildlife
- Engage People and Communities Around the Sound: foster sustainable behaviors through social marketing
- Improve Conservation on Private Lands: work with landowners to increase the number of best conservation practices.

Recommendations for Action

Below are recommendations for consideration by the agricultural community, conservation organizations, public leaders and others interested in aiding Suffolk County farmers in playing a strong role in addressing regional water quality concerns while sustaining a viable agricultural economy in the region:

Recommendation 1: Engage Suffolk County Farmers to Assess Needs that could be Addressed in Partnership with RCPP.

Farmers are critical allies in addressing regional water quality concerns and there must be a strong base of interest and support among the agricultural community for such a conservation project to succeed. Cornell Cooperative Extension of Suffolk County led a successful Nitrogen Stewardship Meeting for farmers and the agricultural community on December 19th, 2013 that included farmer presentations and discussion groups that highlighted farmer perspectives on current challenges and opportunities for the future.^{xxv} Such dialogue must be continued to

encourage farmer support for a regional conservation initiative and ensure that such an initiative reflects farmers' priorities and interests.

Recommendation 2: Secure Participation from Key Agricultural and Conservation Partners.

Suffolk County is home to an important network of partners that could play a role in an RCPP project, including Suffolk County Soil and Water Conservation District, NRCS, Cornell Cooperative Extension of Suffolk County, Long Island Farm Bureau, Suffolk County Department of Planning and Environment, Peconic Land Trust and others.

It is important that organizational roles in a regional conservation initiative be clearly defined, including the entity or individuals that will be providing direct technical assistance to farmers in developing nutrient management plans, pest management plans and overseeing other aspects in conservation practice adoption. The availability of qualified staff or consultants that can provide technical assistance has historically been a barrier for farmers look to leverage state and federal funding to design and implement conservation practices in Suffolk County.

Recommendation 3: Clearly Identify Regional Resource Concerns and Targeted Practices.

To be competitive, it is important a clear set of resource concerns be identified that will be the target for the RCPP project. One approach would be to 'conserve the soil to protect the water'. Such an approach would prioritize improved soil health and the permanent protect of farmland from real estate development as a means to reduce nitrogen losses from farmland and protect water quality. Such an integrated initiative would: 1) draw on Suffolk County's national leadership in permanently protecting farmland and ongoing needs for additional resources to purchase agricultural conservation easements, 2) incorporate soil health practices that are a national priority for NRCS and are valuable to Suffolk County farmers to enhance soil fertility and aid in adaptation to severe weather patterns and 3) target urgent concerns regarding high nitrogen levels in ground and surface water.

Partners should work with NRCS to determine practices eligible to address identified resource concerns. These avenues should include identifying the conservation practices most effective and likely to be adopted by producers in Suffolk County. It should also include information on the NRCS conservation programs, of those included in the RCPP authority, most suitable to draw upon for financial and technical assistance, as needed.

Recommendation 4: Inventory Possible Resources Available Among the Project Partners to Satisfy the Non-Federal Portion of Project Implementation Activities and Costs.

NRCS expects that RCPP projects will leverage funding and in-kind support from other sources – including state and local governments, nonprofit organizations, farmers and agricultural industry groups and other sources. Project partners should clearly identify funds, personnel, and technical expertise for addressing the natural resource concerns that have been identified.

Recommendation 5: Engage Researchers to Develop a Plan to Monitor and Evaluate the Effectiveness of the Proposed Actions to Address Resource Concerns.

NRCS is highly interested in evaluating and documenting the impact of conservation practice adoption by farmers on identified resources concerns, such as soil health, farmland protection and water quality. Suffolk County has multiple organizations with expertise in water quality research and monitoring that could be integrated into an RCPP project, including Stony Brook University^{xxvi}, Suffolk County Department of Health Services^{xxvii}, Suffolk County Water Authority^{xxviii} and Cornell Cooperative Extension of Suffolk County.

Recommendation 6: Educate Local, State and Federal Leaders About the Opportunity to Aid Farmers in Addressing Regional Water Quality Concerns.

It is important that public officials at all levels of government understand the challenges facing Suffolk County farmers and the opportunity to work with these producers to improve soil health, protect farmland from development and address water quality concerns. These activities could include meetings and farm tours for state leaders, such as Governor Cuomo, the New York State Commissioner of Agriculture and Commissioner of the Department of Environmental Conservation, New York State Soil and Water Conservation Committee, New York State Senate and Assembly Representatives from the region, as well as federal officials, such as Senators Gillibrand and Schumer, Congressman Bishop, Regional and National NRCS Leadership, NRCS' New York State Conservationist and New York State Technical Committee, Environmental Protection Agency Region 2 Leadership, National Fish and Wildlife Foundation, and others. Additionally, it is important that public media coverage be generated to communicate about Suffolk County farmers' efforts to address nitrogen concerns and the potential to do more with RCPP support.

Recommendation 7: Engage Partners in the Long Island Sound Watershed to Discuss Regional Resource Concerns and Assess Interest in a Multi-State RCPP Project. Such partners could include Soil and Water Conservation Districts and state Associations of Conservation Districts, local and state Farm Bureaus, Cooperative Extension educators, Long Island Sound Study, state Departments of Agriculture and Environmental Conservation, NRCS State Conservationists and others from New York and Connecticut and potentially other states in the Long Island Sound watershed.

Recommendation 8: Integrate Gathered Information Into an RCPP Project Plan.

Partners should organize gathered information from farmers and other interests into an RCPP project plan to guide a successful application for RCPP funding. Such a plan would identify:

- priority resource concerns, such as water quality, soil health and farmland protection,
- practices that could be adopted by farmers to address these challenges,
- sources of technical and financial assistance that could be leveraged to aid farmers in practice adoption as well as monitoring and evaluation of project results,
- farmer interest in participating in the project,
- strategies for outreach and education to engage farmers, including Beginning Farmers, Limited Resource or Socially Disadvantaged Farmers and others that could be important project stakeholders.

Recommendation 9: Pursue Federal Funds Pursuant to RCPP Project Plan

The RCPP Project Plan should identify the appropriate level – state or federal – for pursuing RCPP funds. Partners should use the RCPP Project Plan as the foundation for a compelling proposal to NRCS and pursue multi-year funding to aid Suffolk County farmers in improving soil health, protecting farmland and improving water quality in the region.

Conclusion

The new RCPP offers significant potential to leverage federal funding to aid farmers in addressing nitrogen concerns in Suffolk County and broader region, including Long Island Sound and the Peconic Estuary.

RCPP is authorized to receive almost \$1.3 billion through the United States Department of Agriculture’s Natural Resources Conservation Service (NRCS) over the next 5 years. This report outlines 9 recommendations for action to successfully compete with other regions of the country for these funds.

One approach to an RCPP initiative in Suffolk County and the broader Long Island Sound watershed would be to aid farmers in ‘conserving the soil to protect the water’. Such an approach would prioritize aiding farmers in adopting soil health practices and the permanent protect of farmland from real estate development as a means to reduce nitrogen losses from farmland and protect water quality.

If successful, a regional initiative with RCPP funding could provide important new resources to aid farmers in doing their part to address regional water quality concerns while sustaining a viable agricultural economy in Suffolk County.

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- ^{vi} American Farmland Trust, <http://newyork.farmland.org/suffolkcounty/>, February 27, 2014.
- ^{vii} Shaffer, Steve and Ed Thompson, *Encouraging California Specialty Crop Growers to Adopt Environmentally Beneficial Management Practices for Efficient Irrigation and Nutrient Management*. April 2013.
- ^{viii} Elmendorf, Douglas W. *January 28, 2014 Letter to the Honorable Frank D. Lucas*. Congressional Budget Office, United States Congress. Washington, DC.
- ^{ix} Ferguson, Kirsten, Jeremiah P. Cosgrove and Teri Ptacek, American Farmland Trust, *Call To Action: Farmland Protection Success Stories in the Empire State*, 1998.
- ^x New York City Department of Environmental Protection Bureau of Water Supply, *Watershed Agricultural Program Evaluation of Current Evaluation Criteria*, December 31, 2010
- ^{xi} Farmland Information Center, *Status of Local PACE Programs Factsheet*, January, 2012.
- ^{xii} Agricultural Act of 2014. January 27, 2014. Conference Report to Accompany H.R. 2642. Washington, DC.
- ^{xiii} The Conservation Stewardship Program allocation of resources is based on acreage rather than a specific dollar amount. The figure cited here is based on converting the 7 percent of acres to an approximate dollar value based on the Congressional Budget Office estimate.
- ^{xiv} A detailed listing of the required content for the application is included in the Appendix
- ^{xv} This could include a map of the project area, data on the nature and severity of the resource problems to be addressed, the kinds of crops or livestock being produced, the practices that can be effective in treating the resource concerns.
- ^{xvi} The plan should allow for monitoring and assessment of outcomes rather than simply activities.
- ^{xvii} USDA NRCS, *Unlock the Secrets in Soil*, <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/soils/health/>, November 27, 2013.
- ^{xviii} USDA NRCS, *Chesapeake Bay Restoration Initiative*, <http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/farmland/?cid=stelprdb1047323>, November 27, 2013
- ^{xix} USDA NRCS, *Great Lakes Restoration Initiative*, http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/?&cid=nrcsdev11_023903, November 27, 2013.
- ^{xx} USDA NRCS, *America's Great Outdoors Initiative*, http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ny/programs/?cid=nrcs144p2_027055, November 27, 2013.
- ^{xxi} USDA NRCS, *State Technical Committees*, <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/technical/stc/>, November 27, 2013
- ^{xxii} Long Island Sound Study, *What Makes Long Island Sound Special?*, <http://longislandsoundstudy.net/about-the-sound/what-makes-it-special/>, November 27, 2013.
- ^{xxiii} http://ftp-fc.sc.egov.usda.gov/NH/WWW/Programs/Initiatives/LIS_AT-A-GLANCE-8-15-2012.pdf, November 11, 2013
- ^{xxiv} <http://www.nrcs.usda.gov/wps/portal/nrcs/main/ct/programs/financial/eqip/>, November 11, 2013.
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- ^{xxvi} <http://ccesuffolk.org/nitrogen-stewardship-meeting/2013-12-19>, February 5, 2014.
- ^{xxvii} <http://www.somas.stonybrook.edu/>, February 5, 2014.
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- ^{xxix} <http://www.scwa.com/>, February 5, 2014.

APPENDIX A

RCPP Proposal Requirements

Each project proposal would need to include the following:

1. Cover and Summary (likely limited to two pages)
 - Project title
 - Project director or manager and contact information
 - Identity of lead partner (organization) and contact information
 - Brief description of the project, including the natural resource concerns to be addressed
 - Conservation practices and activities to address the resource concerns
 - Specific geographical location (including state, county(s), congressional districts, and indication if multi-state or intra-state).
 - Proposed start and end dates for the project, but it cannot exceed five years (but could be limited to fewer years)
 - Amount of financial assistance being requested
2. Project Natural Resource Concerns, Objectives and Actions, including the specific natural resource concerns that NRCS has approved for each announcement. (The announcement being the formal notice of fund availability for RCPP projects)
 - Identify and provide details about the project objectives—being specific, measurable, achievable, and results-oriented, and including a timeline for completion
 - For each project objective, identify the actions to be completed to achieve the objective and address the natural resource concern. This could include those objectives to be addressed through NRCS financial assistance and those objectives addressed through non-Federal resources.
3. Detailed Project Description
 - A detailed description of the geographic areas covered by the proposal, including types of land to be treated, and the locations and size of the proposed project area
 - A detailed map showing the project area that includes the areas to be treated and their priority order for treatment
 - Description of the project timeline, including
 - Duration of the project, not to exceed five years (but could be less, depending on the specific announcement)
 - Project implementation schedule or action plan
 - Expected dates for project completion and submission of final report
 - The amount of Federal financial assistance for producer contracts from each available program for each fiscal year. And by state if the project is multi-state. An indication of the non-Federal resources leveraged by Federal assistance should be specified.
 - Description of the plan for monitoring, evaluating, and reporting on progress made toward achieving the objectives in the project agreement

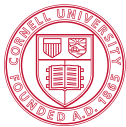
- The criteria to be used by NRCS to prioritize and rank agricultural producers applications in the project area. Potential partners should collaborate with NRCS to develop meaningful criteria to evaluate and rank producer applications.
- An estimate of the percentage of producers in the project area that may participate in the project along with an estimate of the total number of producers located in the project area. A description of how partners will encourage producer participation. An identification of any targeted groups of producers (e.g. tribal producers, beginning farmers or ranchers, limited resource producers, or socially disadvantaged farmers or ranchers) that will participate, or other groups of producers that may submit joint applications to address resource issues of common interest and need.
- A listing and description of the conservation practices, conservation activity plans, enhancements, and partner activities to be implemented during the project timeframe and the general sequence of implementation. Only approved conservation practices in the NRCS Field Office Technical Guide (FOTG) are eligible for assistance. For each practice estimate the amount of practice extent (feet, acres, number, etc.) the partner expects producers to implement and the amount of financial assistance requested to support implementation of each practice through producer contracts. Indicate whether the project will address regulatory compliance and other outcomes the partner expects to complete during the project period.
- Indicate the technical assistance to be provided by the partner or requested of NRCS to be provided to participating producers
- A description and explanation of any requested adjustments to program requirements or policies and explanation of why it is needed to achieve the project objectives. Adjustments cannot be made concerning appeals, payment limitations, and conservation compliance.
- A description of how the proposal's objectives may provide additional benefits by addressing other natural resource concerns, specifically energy conservation, mitigating the effects of climate change, or facilitating climate change adaptation.

4. Partner description

- A description of the partners history of working with agricultural producers to address conservation priorities
- If multiple partners, a description of how the partners will collaborate to achieve the objectives, including:
 - Roles, responsibilities, and capabilities of each partner
 - The financial or technical commitments of each partner and how it will be leveraged by Federal assistance through covered NRCS programs
- A description, by project objective, of how the requested resources (technical and financial assistance) from the applicable NRCS programs are leveraged by partner resources. The contribution of time and funding by agricultural producers for implementing conservation practices and enhancements are not acceptable as a partner match.

APPENDIX B

Profiles of Suffolk County Farmers Protecting Water Quality



RORY MCNISH

IMPROVING WATER QUALITY ON LONG ISLAND: ENGAGING FARMERS IN LAND AND WATER STEWARDSHIP

Between Land and Water

THE DEEP ROOTS OF FOSTER FAMILY FARM

Dean Foster's deep ties to the land and water is evident from the ocean view surrounding his potato fields—believed to be the only farm from Maine to Delaware that's set on the ocean. Dean considers himself a sixth-generation farmer, though his family arrived as whalers to Long Island's South Fork in the 1650s. The Fosters traded their life on the water for one working the land. They raised dairy and beef cattle until the late 1800s, when the farm transitioned to potatoes.

Like his family history, the roots of Dean's love of the land run deep. "Working the land for generations, you get a feeling for what to do and what not to do," says Dean.

"It's a living organism that needs constant attention."

In recent years, Dean has started to rotate his acres of potatoes with plantings of field corn. Changing crops helps build healthy soils by retaining nutrients and water and reducing the amount of fertilizers needed to keep plants healthy. Leaving corn stubble in the field also replenishes the soil and slows water runoff.

"We've found corn to be a fantastic biomass crop and rest crop for potatoes," explains Dean, adding that it is good for the land, and for the farm's economic viability. "By being a good

steward of the land and resting the property with the right crops, we're finding that it's bumping up our yield for the following year."

Dean has an eye to the future for his family's farmland. Where not bordering the shoreline, his fields are surrounded by large homes—evidence of development pressure that is among the highest in the nation. He sold the development rights on more than 100 acres of his land in partnership with a local farmland preservation program to protect it as farmland forever and reinvested the funds by purchasing additional farm acres in the community. For Dean, it is not a matter of preserving the farm for his family alone. "To me, that's not what counts," he explains. "It's that this natural resource is being used to feed good food to the American public."

I constantly think of the stewardship techniques and the farming techniques of doing a better job and growing a better product because of it.

— DEAN FOSTER



RORY MCNISH—CCE-SUFFOLK

"The soil is a living organism," explains Dean Foster. "You do your best at making sure what you're doing is right."

Stewardship in Action

ACRES IN FARMING: About 490, equivalent to 245 New York City blocks

FARM PRODUCTS: Potatoes, field corn

CONSERVATION PRACTICES: Crop Rotation, Controlled Release Nitrogen Fertilizer, Cover Crops, Soil Testing

Suffolk County Farm Facts

- Suffolk County is ranked first in New York for the dollar value of farm products sold each year.
- Agriculture generates \$288 million in annual sales and directly employs more than 2,200 people.

Farming in Suffolk County

Agriculture has been the backbone of Suffolk County's identity for centuries and continues to be a foundation of the region's economy. Suffolk County ranks first in New York in annual farm sales with more than \$300 million in farm products sold in 2010. The county's 50 winery tasting rooms, farm stands and scenic vistas provided by farmland are also closely connected with the region's \$4 billion tourism industry.

Many of Suffolk County's farms produce vegetables, fruits, flowers, plants and trees. There are far fewer farm animals in Suffolk County today than years ago, with the exception of horses. Farming in Suffolk County has changed substantially in recent decades. Since 1950, there has been a 90 percent reduction in the land in farming in Suffolk County, due largely to competition for land between farmers and real estate developers. Such demand has made farmland values in Suffolk County among the highest in the nation. When high farmland values are combined with significant costs of labor, fuel and other expenses, sustaining economically viable farms is a critical issue for the future of farming in the region.

A Commitment to Environmental Stewardship

Part of the success of farming in Suffolk County is due to the region's productive soils and unique climate, as it is surrounded on three sides by water. Farmers in the region have a significant history of environmental stewardship and commitment to protecting these valuable soils and clean water. In 2004, Suffolk County Cornell Cooperative Extension established the Agricultural Stewardship Program to work with farmers to promote use of environmentally sound practices to control pests and diseases as well as to reduce nutrients entering groundwater.

In 2012, Cornell Cooperative Extension of Suffolk County and American Farmland Trust launched a partnership to help Suffolk County farmers accelerate their use of conservation practices to reduce nitrogen entering groundwater and surface water, including Long Island Sound. Cornell Cooperative Extension is working with farmers to conduct on-farm demonstrations to provide practical experience with new techniques, such as the use of Controlled Release Nitrogen Fertilizer. This new practice enables farmers to reduce their use of nitrogen by an average of 20 percent, lessening the risk of nitrogen runoff and leaching without affecting yields. However, this practice has a perceived higher cost than traditional fertilizers and has had limited previous use on Long Island. American Farmland Trust has adapted its national Best Management Practices Challenge program to eliminate financial risk for farmers participating in these demonstration projects.

The project partners are working with farmers growing sweet corn and potatoes in using this new practice. Already, the partnership has dramatically increased the number of farmers utilizing Controlled Release Nitrogen Fertilizer to a majority of farmers growing sweet corn and potatoes.



Foster Family Farm has permanently protected more than 100 acres of farmland in Suffolk County, New York

Project Partners

This project to aid farmers in protecting water quality in Suffolk County has been made possible by financial support from the Long Island Community Foundation, Rauch Foundation, Suffolk County Water Quality Protection and Restoration Program and the William E. & Maude S. Pritchard Charitable Trust.

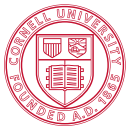


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RORY MCNISH

IMPROVING WATER QUALITY ON LONG ISLAND: ENGAGING FARMERS IN LAND AND WATER STEWARDSHIP

The Halsey Family Tree

A LEGACY OF INNOVATION AND CONSERVATION

The Halsey family has lived and farmed on the South Fork of Long Island's Suffolk County since the 1640s. The food they have produced has changed over time—from self-sustaining farmstead to potatoes and dairy to retail orchards—but their commitment to sound farming practices has remained constant.

Today, Jennifer Halsey Dupree is the 12th generation to manage the family's pumpkin farm and their apple and peach orchards. She grows 26 different varieties of apples and a large selection of squash and pumpkins for their u-pick operation and for the retail market. The Halsey farm sells fruit to nearby schools and other farm stands,

but most of its business results from customers at their farm stand, The Milk Pail Country Store in Water Mill.

For Jennifer and her father John, using conservation practices makes economic and environmental sense. One approach that the Halseys use is Integrated Pest Management (IPM). IPM requires careful monitoring of pests, disease and weather patterns to determine the most effective crop protectant and the proper timing of application. Wanting to ensure that crop protectants reach their intended targets and do not drift, John built an over the row sprayer with drift reducing nozzles,

resulting in all crop protectants reaching their intended target. The Halsey farm was able to reduce pesticide application on the farm's apple orchard by 30 percent.

The Halseys also store their crop protectants, fertilizer and equipment in a barn specially structured to keep any spill from leaching into the soil below. "Everyone knows that the water table here is our drinking water. And it's very close," explains John. "We feel this facility is a very important part of our farm operation."

Keeping the land and water healthy is critical to Jennifer as she looks to the future of the farm. The next generation of farmers "is going to have so many opportunities," she says. "Technology in itself is going to be amazing. And with all these new things, it'll just make it easier and safer." She adds, "No one should be afraid to get into agriculture because it's a wonderful, wonderful way of life."

Everybody has to do their part as far as nitrogen is concerned. We rely on this water source to drink, so anything you put in the soil is going to end up in the water if there is too much of it... We all have to take care of it.

— JENNIFER HALSEY



RORY MCNISH—CCE-SUFFOLK

Jennifer Halsey Dupree, and daughter, Kay, at their family peach orchard

Stewardship in Action

ACRES IN FARMING: About 70, equivalent to 35 New York City blocks

FARM PRODUCTS: Apples, peaches, pumpkins

CONSERVATION PRACTICES: Integrated Pest Management, Crop Rotation, Cover Crops, Reduced Tillage, Soil Health Testing, Controlled Release Nitrogen Fertilizer, and Agricultural Handling Facility

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RORY MCNISH—CCE-SUFFOLK

John Halsey, Jennifer's father, has been leading the way in conservation on the family's farm.

Project Partners

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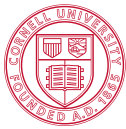


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IMPROVING WATER QUALITY ON LONG ISLAND: ENGAGING FARMERS IN LAND AND WATER STEWARDSHIP

A Salad Bowl of Conservation Practices

SCHMITT FAMILY FARM

Phil Schmitt's family has farmed at locations across Long Island for the past 150 years—from Queens to Farmingdale to Riverhead. Today, Schmitt Family Farm produces leafy greens like lettuce and spinach, as well as beets, cabbage and even horseradish that are sold to grocery stores and restaurants, as well as direct to the public at their farm stand.

I really think [reduce till] has helped a lot with soil quality. And in the long run, I think it will save some time and money, too.

— PHIL SCHMITT

"We practice very intensive agriculture," explains Phil. "We started to see that the land was getting a little tired." To regenerate the farm's soils, Phil utilizes cover crops, such as rye, employs Integrated Pest Management (IPM) technique to reduce use of pesticides, and spreads compost to lessen the need for synthetic fertilizers.

Several years ago, Phil began growing sweet corn, which he found as a good rotation crop to integrate into the farm's planting cycle to improve the health of the soil. He invested in new planting equipment to reduce soil disturbance and leave more plant material in the ground. He uses this technique for both his sweet corn and his sunflower crops. The debris that remains from reduced tillage decreases the runoff of water and of vital nutrients from the soil.

"You can really see the difference in the soil," Phil explains. "It comes up nice and fluffy and lush." Phil also uses controlled release nitrogen fertilizer on all of his sweet corn to further reduce the likelihood of nitrogen entering Long Island Sound and other area waterways.

With each new conservation investment, Schmitt Family Farm is investing in the family, too. "It is a business and we have to make a living to be able to keep farming," explains Debbie, whose son Matthew works full-time on the farm.



Phil Schmitt includes composting in his farm management and conservation plans.

Stewardship in Action

ACRES IN FARMING: About 200, equivalent to 100 New York City blocks

FARM PRODUCTS: Leafy greens (lettuce, spinach), beets, herbs, sweet corn, flowers

CONSERVATION PRACTICES: Cover Crops, Reduced Tillage, Soil Health Testing, Controlled Release Nitrogen Fertilizer, Integrated Pest Management, Crop Rotations, Composting

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The project partners are working with farmers growing sweet corn and potatoes in using this new practice. Already, the partnership has dramatically increased the number of farmers utilizing Controlled Release Nitrogen Fertilizer to a majority of farmers growing sweet corn and potatoes.



SCHMITT FAMILY FARM

For the past ten years, Schmitt's Farmstand has provided a place for the local community to connect with the place where their food is produced.

Project Partners

This project to aid farmers in protecting water quality in Suffolk County has been made possible by financial support from the Environmental Protection Agency, Long Island Community Foundation, National Fish and Wildlife Foundation, Rauch Foundation, Suffolk County Water Quality Protection and Restoration Program, USDA Natural Resources Conservation Service and the William E. & Maude S. Pritchard Charitable Trust.



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IMPROVING WATER QUALITY ON LONG ISLAND: ENGAGING FARMERS IN LAND AND WATER STEWARDSHIP

Preserving the Past, Adapting for the Future

MARTY SIDOR AND NORTH FORK POTATO CHIPS

At Marty Sidor's potato farm in Mattiuck, business decisions are made around the kitchen table. Marty is the grandson of Polish immigrants; his family has farmed potatoes on the North Fork of Long Island since 1908. His grandparents, whose photo hangs on the wall near that kitchen table, provided Marty's first lessons on conservation. "They lived it, they understood it, and they farmed with balance," he explains.

The more you are looking to produce, being on the island and sitting over the groundwater aquifer, you have to be accountable for that.

— MARTY SIDOR

Marty has taken the family tradition of land and water stewardship into the 21st Century with new marketing techniques and conservation practices, including Controlled Release Nitrogen Fertilizer. This fertilizer is designed to break down over time according to the plant's need for nutrients, making it less likely to end up in the local drinking water. Conventional fertilizer is water-soluble and can dissolve from heavy rain and leach into groundwater.

After first testing the new fertilizer several years ago, Marty noticed it fit well into his planting and fertilizing plan. "It's very user-friendly," he explains. "I've seen crops that store better, and I haven't seen one deficiency in the field through all this time."

It was also around the kitchen table where Marty and his wife decided to diversify their business by opening an on-farm potato chip processing facility. North Fork Potato Chips has given Marty a new market to sell his potatoes, while at the same time connecting local community members to the farm and its rich history. Even more, the sunflower oil used in the chip-making process is repurposed as biofuel in Marty's fleet of trucks, tractors and other equipment.

In all of his business endeavors, Marty is carrying on his family's common-sense approach to land and water stewardship. "What you are doing is building your own history," he says. "As far as what we are doing today, I think we are as much on top of things as we've ever been."

The farmer, there's something that's built within that farmer, within his heart, and his soul, that he is going to persist.

— MARTY SIDOR



Marty Sidor and his family have farmed potatoes in Mattiuck for more than 100 years.

Stewardship in Action

ACRES IN FARMING: About 120, equivalent to 60 New York City blocks

FARM PRODUCTS: Table potatoes, North Fork Potato Chips

CONSERVATION PRACTICES: Controlled Release Nitrogen Fertilizer, Cover Crops, Biofuel Facility

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Farming in Suffolk County

Agriculture has been the backbone of Suffolk County's identity for centuries and continues to be a foundation of the region's economy. Suffolk County ranks first in New York in annual farm sales with more than \$300 million in farm products sold in 2010. The county's 50 winery tasting rooms, farm stands and scenic vistas provided by farmland are also closely connected with the region's \$4 billion tourism industry.

Many of Suffolk County's farms produce vegetables, fruits, flowers, plants and trees. There are far fewer farm animals in Suffolk County today than years ago, with the exception of horses. Farming in Suffolk County has changed substantially in recent decades. Since 1950, there has been a 90 percent reduction in the land in farming in Suffolk County, due largely to competition for land between farmers and real estate developers. Such demand has made farmland values in Suffolk County among the highest in the nation. When high farmland values are combined with significant costs of labor, fuel and other expenses, sustaining economically viable farms is a critical issue for the future of farming in the region.

A Commitment to Environmental Stewardship

Part of the success of farming in Suffolk County is due to the region's productive soils and unique climate, as it is surrounded on three sides by water. Farmers in the region have a significant history of environmental stewardship and commitment to protecting these valuable soils and clean water. In 2004, Suffolk County Cornell Cooperative Extension established the Agricultural Stewardship Program to work with farmers to promote use of environmentally sound practices to control pests and diseases as well as to reduce nutrients entering groundwater.

In 2012, Cornell Cooperative Extension of Suffolk County and American Farmland Trust launched a partnership to help Suffolk County farmers accelerate their use of conservation practices to reduce nitrogen entering groundwater and surface water, including Long Island Sound. Cornell Cooperative Extension is working with farmers to conduct on-farm demonstrations to provide practical experience with new techniques, such as the use of Controlled Release Nitrogen Fertilizer. This new practice enables farmers to reduce their use of nitrogen by an average of 20 percent, lessening the risk of nitrogen runoff and leaching without affecting yields. However, this practice has a perceived higher cost than traditional fertilizers and has had limited previous use on Long Island. American Farmland Trust has adapted its national Best Management Practices Challenge program to eliminate financial risk for farmers participating in these demonstration projects.

The project partners are working with farmers growing sweet corn and potatoes in using this new practice. Already, the partnership has dramatically increased the number of farmers utilizing Controlled Release Nitrogen Fertilizer to a majority of farmers growing sweet corn and potatoes.



With the introduction of a chip processing facility, Marty Sidor is connecting local consumers to the farm.

Project Partners

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