Warren County Agricultural Environmental Management Plan (AEM) Strategic Plan 2026-2030

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WARREN COUNTY
Soil & Water
Conservation District

AGRICULTURAL
ENVIRONMENTAL
MANAGEMENT
AEM

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Introduction

Warren County is split between the Lake Champlain and Upper Hudson Watersheds. The northern part of the county lies in the southeastern section of the Adirondack Park, drawing visitors from across the region. The southern portion of the county, which is more developed, is home to most of the population and serves as a center for residential, commercial, and industrial activity.

Over the past several years, Warren County has seen more diversity in its farms, especially those focused on specialty crops and value-added products. This growth has been driven not only by increased interest from visitors in local goods, but also by the support and promotion of organizations like Adirondack Harvest, local farmers' markets, NYS Department of Agriculture & Markets, USDA Natural Resources Conservation Service (NRCS), SUNY Adirondack, the New York State Soil and Water Conservation Committee, and our office. Thanks to these efforts, farming opportunities continue to expand throughout the county. While Warren County is 867.2 square miles of land area, only 0.2% - 5.8% of that land is considered farmland (U.S. Department of Agriculture's 2022 Censes of Agricultural data).

Our Agricultural Environmental Management (AEM) Program has been running for 20 years, and this voluntary program helps farms adopt practices to better protect natural resources. AEM has steadily grown, with more farms joining each year and landowners who are interested in beginning a farm. It offers technical assistance and recommendations to help farmers protect soil and water resources. The program has gained traction not only here in Warren County but across New York State.
Because of that growth, in 2023, Warren County became eligible for up to $200,000 in implementation funding every two years. This funding is available to AEM-participating farms and helps support projects that protect natural resources—such as cover cropping, irrigation water management, and soil conservation practices.
To continue growing the AEM program in a way that truly reflects the needs of Warren County's agricultural community, we've put together the following updated strategic plan for 2025–2030.

Strategic Plan Background Information

Vision

The vision of the AEM program for Warren County is to sustain the high quality of our agricultural lands and natural resources. Included are the health and productivity of our soils, integrity of the lakes and streams, and the health of the over and understory vegetation. The District and farms have the goal of growing Warren County agriculture, while protecting our natural resources.

Mission

The mission of the Warren County AEM Program is to promote stewardship that improves the quality of natural resources, agricultural production, and access to agricultural land in rural/urban areas within the County. Through education, outreach, and the implementation of best management practices for soil and water quality, our goal is to enhance both traditional and emerging forms of agriculture in Warren County.

Advisory Committee

In 2025, the Warren County SWCD Board of Directors approved the AEM 2026-2030 strategic plan put forth by the Warren County Soil & Water Conservation District on behalf of the Warren County agricultural community. A designated subcommittee acts as the Agricultural Coordinating Committee (ACC), initiated in 2025 for the AEM Strategic Plan update.

Advisory members include:

NYS Department of Agriculture & Markets
SUNY Adirondack
Adirondack Harvest
Farmers markets representatives
Agricultural producers involved in the AEM Program
Water Quality Strategy Committee
Upper Hudson River Watershed Improvement Coalition
USDA Natural Resource Conservation Service
Warren County Planning Department
Champlain Watershed Improvement Coalition of NY
Warren County Soil & Water Conservation District
Warren County Office of Emergency Services
Community Garden members and coordinators

The District thanks the partnering agencies, organizations, and individuals for providing input for year 2026-2030 AEM Strategic Plan for Warren County.

Historical Prospective and Current Status

Warren County likely reached its peak in traditional agriculture during the mid to late 1800's and from that point, agriculture continued to decline within the county. According to the most recent USDA Census of Agriculture data, the capital region lost 10 percent of its farms overall, but Warren, Rensselaer, and Saratoga counties had an increase in farm numbers. Most farms in the capital region have a large percentage of farm sales from milk products; however, Warren County has top commodity sales in the nursery, greenhouse, and floriculture industry. This information is a shift from the 2017 census data that showed cattle, poultry, and pork products making up most of the agricultural market in Warren County, totaling 49% in livestock products.
The census data also states Warren County had a 16% increase in the number of farms, but did not have an increase in farmland. Farms in Warren County experienced a net negative income, while many other areas of the state experienced an increase in commodity sales and net farm income.

In addition to the growth in agricultural acres, there has been an increase in the demand for locally grown produce. Seasonal agricultural markets are still a popular way to purchase produce from local farms, and recently the City of Glens Falls supported the construction of a new farmers market building on South Street to attract farmers. While overall the county is seeing fewer larger farms, we have seen a growth in the number of specialty agricultural producers. Market farms, hobby farms, farms offering community supported agriculture (CSAs), mushrooms, specialty goat cheese, pumpkin patches, and homesteads have been popping up all over and asking for technical assistance from the District. This was especially apparent through the start of the 2020 COVID pandemic. Our market farms had excellent sales throughout the year, leading to farm expansion

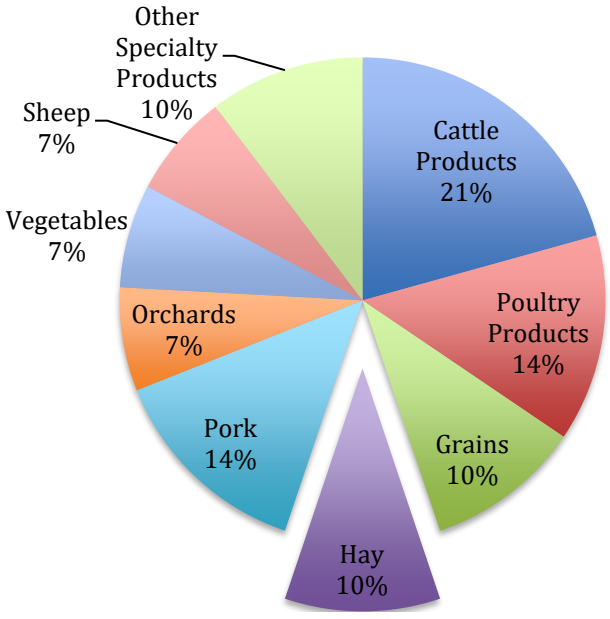


Figure 2 Warren County agricultural market value based on the 2017 census

and more and more people are attracted to visiting and living in the Adirondack Park. Having locally produced agriculture is a valuable resource for our consumers and community.

Surveys and reports collected by the United States Department of Agriculture are a voluntary based program. The information provided is based on the data farmers provide and therefore may not be an accurate representation of the Warren County Agriculture as a whole.

AEM Tier System

Below is an overview of the basic components of the Agricultural Environmental Management (AEM) Program and what is covered in each tier system. The information is provided by the NYS Department of Agriculture and Markets:

"AEM is a voluntary, incentive-based program that helps farmers make common-sense, cost-effective, and science-based decisions to meet business objectives while protecting and conserving New York State's natural resources. By participating in AEM, farmers can document their environmental stewardship and further advance their positive contributions to their communities, our food systems, the economy, and the environment."

"Farmers work with local AEM resource professionals to develop comprehensive farm plans using a tiered process:

Tier 1 – Inventory current activities, future plans, and potential environmental concerns.
Tier 2 – Document current land stewardship; assess and prioritize areas of concern.
Tier 3 – Develop conservation plans addressing concerns and opportunities tailored to farm goals.
Tier 4 – Implement plans utilizing available financial, educational, and technical assistance.
Tier 5 – Evaluate to ensure the protection of the environment and farm viability."

For more information about the AEM Program,
visit https://agriculture.ny.gov/soil-and-water/agricultural-environmental-management
or contact your local Soil and Water Conservation District

Agricultural Accomplishments

During the last strategic plan update, the District successfully launched and expanded the Warren County Urban Garden Initiative, extending its agricultural support to community gardens countywide. Originally focused on gardens within the City of Glens Falls, the program grew significantly due to increased interest and state aid funding. Within five years, over 15 different community gardens have participated, receiving education, technical support, soil nutrient and trace metal testing, and financial assistance. These gardens ranged from small educational projects to entirely new municipal community garden spaces, demonstrating the program's adaptability and community need.

A standout achievement was the collaboration with the Murray Street Community Garden, City of Glens Falls, and USDA-NRCS, where the garden was converted from being an in-ground vegetable garden to a raised bed system following the NRCS practice code for lands that have unsuitable growing medium. Over the course of four years, this community garden underwent a major transformation, installing 32-inch raised beds, a soil barrier layer, and installation of a 7-foot-tall deer exclusion fencing.

Over the years, the District staff have supported the community gardens with revamping raised beds, trace metal testing, supplying vital soil amendments, purchasing supplies and equipment, garden storage sheds, plants, and many hours of staff time to support projects and provide technical assistance. To end the year on a high note, the District began distributing cover crops and mulch, further enhancing soil health across all participating gardens.

Farm Access Road Project - Before

Tier 4 cost-share funds also opened new opportunities for the District to work with farmers on projects to address resource concerns identified in their tier 3a farm plan. Projects completed were an agricultural chemical storage building for a Christmas tree operation and a farm access road stabilization project for a farmstead operation. These projects would not have been able to be accomplished without the support of neighboring Districts and Agricultural Environmental Analysts (AEAs) from the NYS Soil and Water Conservation Committee. Neighboring Districts took the time to invite District staff and farmers

from Warren County to see similar projects completed. This was an invaluable exercise that we will continue to utilize for future projects.

Farm Access Road Project - After

The District worked under the funding of the Champlain Watershed Improvement Coalition of New York for cover crops and soil health implementation. This funding led to the implementation of practices on both small-scale and large-scale agricultural operations to enhance soil health.

The District completed an Education on Agroforestry grant in partnership with SUNY Adirondack. This grant was funded by the Lake Champlain Basin Program and included developing an agroforestry plan for the college, building a tree nursery to support implementation, and installing a section of a productive riparian buffer. We worked directly with the students and college staff on all aspects of the grant and held three agroforestry workshops that included farmers and the public.

Agricultural Chemical Storage Building for a Christmas Tree Farm - After

In 2021, Nick Rowell completed the NYS Soil Health Specialist Training. This included online work and three field workshops over six days. Topics covered included soil health assessments, cover crops, adaptive nutrient management, and economics of soil health.

District staff also participate in an Urban Agriculture Work Group. This group was formed to better meet the needs of urban farmers and growers with the AEM Program.

Priority Watersheds

Farms in Warren County fall into one of the two major watersheds: the Southern Lake Champlain and Upper Hudson River. The majority of the farms in the Southern Lake Champlain Basin of Warren County are in the Halfway Brook sub-basin, primarily in the Town of Queensbury. In the Upper Hudson River Basin, the majority of farms are in the Towns of Thurman, Chester, and Johnsburg.

The number of farms located in the Upper Hudson River Basin has made this watershed a priority in this strategy. However, the Priority Waterbodies List (PWL), public interest, and needs have also played a part in ranking these watersheds. In the update of the strategic plan, the District found that it was important to prioritize the entire county rather than subdivide it into watersheds. Warren County agriculture is very diverse in operations, and the District finds it important to support all agricultural operations.

Priority Watersheds

Upper Hudson River Watershed

- *Big Brook*
- *Wakely Brook*
- *Raquette Brook-Hudson River*
- *North Creek*
- *Mill Creek*
- *Balm of Gilead Brook-Hudson River*
- *Mill Brook*
- *Sucker Brook-Schroon River*
- *Minerva Stream-Trout Brook*
- *Alder Brook-Trout Brook*
- *Chester Creek*
- *Valentine Pond-Schroon River*
- *Desolate Brook*
- *Alder Brook-Schroon River*
- *Big Brook-Schroon River*
- *Glen Creek*
- *Millington Brook-Hudson River*
- *Patterson Brook-Hudson River*
- *Stony Creek*
- *Lake Luzerne*
- *Wolf Creek-Hudson River*
- *Second Pond Brook-East Branch Sacandaga River*
- *Kibby Brook-East Branch Sacandaga River*
- *Stewart Creek-East Branch Sacandaga River*
- *County Line Brook*
- *Jimmy Creek-East Branch Sacandaga River*
- *Mill Creek-Upper Sacandaga River*
- *Madison Creek-East Stony Creek*
- *Hill Creek-East Stony Creek*
- *South Brook*
- *Outlet Wilcox-East Stony Creek*
- *Tenant Creek*
- *Paul Creek*
- *Sturdevant Creek-Hudson River*
- *Clendon Brook-Hudson River*
- *Champlain Canal*
- *Glens Falls Feeder Canal-Hudson River*

Lake Champlain Watershed

- *Headwaters Halfway Creek*
- *Halfway Creek*
- *Headwater Lake George*
- *Northwest Bay Brook*
- *Indian Brook-Lake George*
- *Sabbath Day Point-Lake George*
- *Outlet Lake George*
- *La Chute*
- *Putnam Creek*

Upper Hudson River Watershed

Water Quality:
According to the NYS Department of Environmental Conservation PWL, the Hudson River is impacted immediately below Warren County. Preemptive measures to ensure water quality in the Hudson River in Warren County are essential to diminish overall impacts to the riparian system as a whole. The Schroon River is a sub-watershed within the Upper Hudson River Watershed and is a NYSDEC C(T) classified trout stream. According to the NYS DEC PWL, siltation causes precluded fish propagation and stressed survival. Not all waterbodies have been assessed within this watershed.

Use Impact: Aquatic life
Known sources of the pollutants: None
Suspected sources of pollutants: Deicing materials, sedimentation, urban/storm runoff, agriculture, timber harvest activities, and construction

Desired Future Condition:
Assessing the condition and needs of farms in this watershed will serve to educate farmers on best management strategies to help their farms grow in a sustainable way while mitigating future impacts. Work with farms to implement best management practices outlined in conservation plans.

HUC12 Boundaries in Upper Hudson Watershed

Lake Champlain Watershed

Water Quality:
This watershed is a part of the southern portion of the Lake Champlain drainage basin and includes both the Lake George and Halfway Brook sub-basins, which are also listed individually on the NYSDEC PWL. This section of the Champlain Watershed is listed as impacted for a wide variety of uses, such as water supply source, recreation, and aquatic life.

Use Impacted: Water supply, recreation, habitat hydrology, aesthetics, and aquatic life
Known Sources of Pollutants: Silt/ sediment, erosion, urban/storm runoff
Suspected Sources of Pollutants: Silt/sediment causing restrictive passage, deicing materials, municipal discharge, and on-site septic systems.

HUC12 Boundaries in Lake Champlain Watershed

Desired Future Condition:
Assessing the condition and needs of farms in this watershed will serve to educate farmers on best management strategies to help their farms grow in a sustainable way while mitigating future impacts. Work towards implementing best management practices focused on erosion control and reduced runoff.

General and Natural Resource Concerns

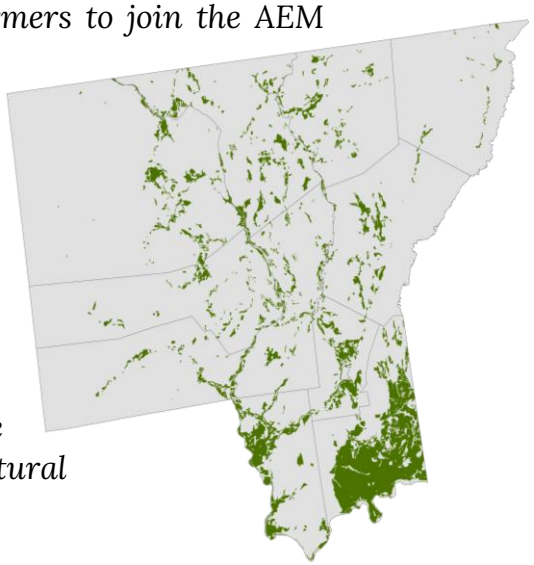
- Soils in the Lake Champlain and Upper Hudson watersheds have been identified as highly erodible, well-drained silts and sands.
- Deicing materials utilized on roadways
- Water quality contamination from stormwater runoff
- Erosion and stormwater runoff caused by land conversion operations
- Impacts to water quality and clarity due to the lack of riparian buffers along waterbodies.
- Harmful Algal Blooms (HABs) have been confirmed on Lake Sunnyside, Glen Lake, Friends Lake, Lake George, and Schroon Lake in Warren County.
- Invasive species introduction and spread
- Updated flood zones
- Wetland & floodplain preservation
- Land use impacts on shallow soils and high groundwater areas
- Development of prime farmlands
- Excessive water and drought periods
- Limitations of land topography for livestock operations

Agricultural Opportunities

Objective 1: *Promote and encourage Warren County Farmers to join the AEM Program*

Goals:

- *Host agricultural events and attend farmers' markets for continual outreach to promote the AEM Program*
- *Continue to complete tier 1 surveys with new farmers*
- *Continue to complete tier 2 assessments for farms within priority watersheds*



Prime farmland and farmland of statewide importance

Objective 2: *Continue to work with farmers through the AEM Program to implement projects that protect natural resources in priority watersheds.*

Goals:

- *Rate and prioritize farms based on resource concerns*
- *Complete tier 3A conservation plans for farms within high-priority watersheds*

- *Rate and prioritize projects for Tier 4 Cost-Share Track implementation funds and other federal and state funding sources*

Objective 3: *Focus on providing assistance with farms focused on forestry products such as maple.*

Objective 4: *Develop more 3a plans that align with grant opportunities through Ag and Markets, such as Tier 4 cost-share and climate resilient farming.*

Objective 5: *Provide certification opportunities for District staff that support Warren County farms*

Goals

- *Encourage staff and/or hire new staff who obtain or have certifications listed in the AEM certifications and qualifications, such as technical service provider, ISA, Certified Crop Advisor, and more.*

Grant Opportunities

- Tier 4 Cost-share through AEM Program
- Source Water Protection Program through NYS Department of Agriculture & Markets
- Climate Resilient Farming Program through NYS Department of Agriculture & Markets
- Source Water Buffer Program through NYS Department of Agriculture & Markets
- Lake Champlain Basin Program
- National Association of Conservation Districts
- USDA-NRCS Environmental Quality Incentive Program
- New York State Grown & Certified
- New York State Department of Environmental Conservation Environmental Protection Fund
- Adirondack Council grants

AEM Team Capacity

As a voluntary program, we are only as powerful as the participation of our stakeholders, primarily the farmers working the land and making the decisions. Farming with environmentally sound methods can increase production and decrease costs. Farmers who are aware and understand the benefits of sustainable farming will be more willing to participate and take initiative to improve areas of concern.

Technical Support: District staff have many skillsets to support its farmers and are continuing to gain the necessary knowledge for the Warren County agricultural community. The District currently has three staff that hold professional certifications. Two of the staff are Certified Professional in Erosion & Sediment Control (CPESC), and one is NYS Erosion & Sediment Control Certificate Program (NYSESCCP). This allows our office to address farm stormwater runoff and water quality concerns, as well as review stormwater pollution prevention plan implementation and permitting. We also have three staff trained in wetland delineation. One staff member is currently going through the International Society of Arboriculture to receive a certification to better serve our farmers with forest products and planning, which is one of our top agricultural priorities.

Being that the majority of Warren County farms use certified naturally grown methods, staff members have attended several conferences from the Northeast Organic Farming Association (NOFA) Conference to stay up to date with organic and certified naturally grown methods.

The District is able to supply the current technical assistance:
Erosion and sediment control, agricultural assessments, permitting, water quality analysis, soil composition, conservation plantings, best management practices, soil health, land surveying, ESRI mapping, wetland delineation, stream analysis, planning, soil conservation practices, forestry, plant identification, and more.

Team needs: Certified Crop Advisor, Pasture Management Planning, XRF Trace Metal Testing Equipment, soil health equipment, Remote Pilate Certificate for Drones, and continuing to shadow Districts on other AEM implementation projects.

Other resources:

- Adirondack Park Invasive Plant Program (APIPP)
- NYS Department of Environmental Conservation (NYSDEC)
- Natural Resource Conservation Service (NRCS)
- SUNY Adirondack
- Cornell Cooperative Extension
- New York Forest Owners Association
- FEMA
- Warren County Planning Department
- Private engineering firms
- Private foresters
- Soil and Water Conservation Districts
- New York State Agriculture and Markets
- Adirondack Park Agency
- US Army Corps of Engineers (USACE)
- Adirondack Harvest
- Capital Region Partnership for Regional Invasive Species Management

Outreach

The District has continued to use education as a way to generate interest in the AEM program, as well as the importance of protecting natural resources in our community. A large part in the expansion of the AEM Program is due to our outreach and educational series called *The Farm Talks*. We created *The Farm Talks* in January of 2014, and the series has been a great success in bringing education to our farms and communities. To date, we've held over 30 presentations and/or field workshops and have partnered with Warren and surrounding county farmers, SUNY Adirondack, Soil & Water Conservation Districts, USDA-NRCS, NYSDEC, CCE, and private foresters. The program is designed to bring in new and successful Warren County farm topics by having experts from our area present on agricultural topics such as cover crops, and include the conservation and farm benefits behind the topic. At each talk, the District gives a presentation on the benefits of the AEM Program to farms of all sizes and types, and the newest updates and opportunities for agricultural producers. From *The Farm Talks*, additional agricultural groups have been created through the opportunity for farmers to network during talks, which has led to Warren County farms partnering in business and knowledge.

The series has become the main educational and outreach portion of AEM, with multiple newspapers and websites gladly posting and printing every talk the District holds. This has been a great way to not only get AEM into the media but has also been an excellent outreach for the District as a whole, winning the NYS Conservation District Employees Association 2015 Special Project Award.

The District actively promotes AEM throughout the community and continually seeks additional funding sources to enhance the program. Providing instructional workshops and training motivates the members of our agricultural community to join the AEM program. By offering these workshops and trainings, we increase the information exchange of thoughts, ideas, management techniques, and technological improvements which certainly assist the District with informing our community in our efforts to better protect natural resources in Warren County.

Planting Garlic in cover crops and mulch at the Village Green Community Garden

Agricultural Resources

- Warren County Soil & Water Conservation District www.warrenswcd.org
- USDA-NRCS Natural Resource Conservation Service www.nrcs.usda.gov/wps/portal/nrcs/site/national/home
- Environmental Quality Incentives Program (NRCS) http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip
- Cornell Cooperative Extension warren.cce.cornell.edu
- Adirondack Harvest www.adirondackharvest.com
- SUNY Adirondack www.sunyacc.edu
- Agricultural Value Assessments- Contact Warren Co. SWCD www.tax.ny.gov/research/property/assess/valuation/ag_overview.htm
- Forestry www.dec.ny.gov/lands/4972.html
- Farmers Markets: www.glensfallsfarmersmarket.com, www.boltonlandingfarmersmarket.com, chestertownfarmersmarket.com/, www.northcreekfarmersmarket.com, www.lakegeorgeguide.com/events/farmers-markets, https://adirondackharvest.com/user/warrensburgh/

Evaluation Strategy

The AEM Report Card will be used for annual and long-term evaluations. Evaluate program with partners and AEM Strategic Planning Committee.

Budgeted Activities 2026-2030

(See Annual Action Plan for yearly budget breakdown)
Tier 1 and Tier 2 - initial contact, goals, and farm assessment
Tier 3a - Conservation Plan Development to reach goals
Tier 4 - Implementation, survey, design installation, construction oversight, and inspection of practices.
Tier 4 Implementation Cost-Share Track
Tier 5a - Follow-up reevaluation
Education
Outreach
Program Evaluation
Partnership Activities
Reporting