



SCHUYLER COUNTY

Agricultural & Farmland Protection Plan

July 2021



Cover photo credits (from top left)

Red Newt Vineyard: Watkins Glen Area Chamber of Commerce

Farm stand: Watkins Glen Area Chamber of Commerce

Hoffman dairy farm and cheesery: Richard Owlett

SCHUYLER COUNTY AGRICULTURAL & FARMLAND PROTECTION PLAN - 2021 UPDATE

EXECUTIVE SUMMARY

KEY FINDINGS AND VISION FOR THE FUTURE

Diverse farm types and sizes will contribute to agricultural production in Schuyler County.

- *While large dairies, vineyards and other crop farms will continue to anchor the County's agricultural economy, smaller farms producing niche products and those that attract tourists will increase their economic impact and become more integrated into Schuyler County's economy. New products and markets such as hops, hemp, mushrooms, and other specialty products, represent opportunities for Schuyler County farms. Farms that market specialty products and experiences directly to consumers will increasingly create destinations for agri-tourism. Forestry is integral to Schuyler County agriculture and complements traditional agriculture through specialized products to diversify farm income, tourism opportunities, and timber harvesting.*
- *Economic development initiatives will focus on integrating agricultural production, tourism, manufacturing, storage, distribution and agricultural services to create and enhance opportunities for Schuyler County businesses.*

Retaining high quality agricultural soils for agricultural use is vital to maintaining Schuyler County's strong agricultural economy and character.

- *Local governments will designate the highest quality farmlands as most suitable for continued agricultural use, directing intensive development to other areas. Sensitive design of residential development will reduce impacts on farm infrastructure and avoid fragmentation of farmland. County and State officials and agencies will minimize impacts of large scale energy development on the agricultural land base.*

Agriculture practices must avoid affecting water quality and natural habitats, especially within sub-watersheds that drain into Seneca Lake, a drinking water source.

- *With additional funding from State and Federal programs, and with a more streamlined and less cumbersome process, more farmers will participate in conservation programs.*

Changing climate will require adaptation by farmers.

- *Farms will take steps to increase resilience to prepare for changing climate conditions such as increasing frequency of severe weather, flooding or drought, new threats from pests or disease, and higher temperatures. Steps may include enhancing soil health, stabilizing stream corridors, enhancing wildlife habitat, reducing flood hazards, and other actions.*

Ongoing education is needed to increase public awareness about the importance of agriculture.

- *Residents and local decision-makers will recognize the contributions of agriculture to community character and the local and regional economy.*

STRATEGIES AND RECOMMENDATIONS

Strategy 1: Expand and promote opportunities for direct sales and agritourism

- Capitalize on Finger Lakes name recognition to market farm products in-person visitors as well as on-line.
- Cross-market wineries and beverage trails with other farm products and agritourism activities.
- Expand opportunities for farmers to sell directly to restaurants, institutions, retail stores and households.
- Expand and enhance the wine, cheese, and other beverage trails.
- Expand markets for local farm products among consumers outside of Schuyler County.
- Encourage municipalities to remove and/or avoid regulations that limit agritourism operations.

Strategy 2: Increase economic integration of agriculture, forestry and related industries

- Maintain and enhance the Advanced Beverage industrial park facility.
- Support crop diversification to develop innovative high quality, value-added products.
- Develop local storage, distribution and processing facilities accessible to farms within Schuyler County.
- Develop small-scale or cooperative processing, distribution and/or storage facilities for niche crops
- Encourage municipalities to remove and/or avoid overly restrictive regulations on agriculture-related processing, storage and distribution.

Strategy 3: Support young, new and beginning farmers

- Connect new and beginning farmers to landowners with farmland to sell.
- Educate youth and adults about farming as an occupation. Establish an “Ag in the Classroom” curriculum,
- Provide technical assistance to new and beginning farmers, including help with business planning, compliance with government regulations, marketing, and farm practices.

Strategy 4: Retain highly productive farmland for agricultural production

- Protect highly productive farmland with permanent conservation easements.
- Adopt and maintain land use laws that direct intensive development, including large-scale solar, away from the highest priority agricultural areas and limit impacts of new development on existing farmland
- Encourage farmland owners to enroll land in the Agricultural Use Assessment program

Strategy 5: Protect water quality and natural resources

- Encourage farmers to participate in AEM planning and to implement best management practices.
- Protect buffers along tributaries to Seneca Lake with permanent or long-term conservation easements.

Strategy 6: Develop partnerships among farmers, municipalities, businesses and institutions to recycle food scraps and other organic waste.

- Identify food waste generators and farms that may be able to use the food waste in their operations.
- Obtain grant funding for implementation of programs to reuse or process food waste on farms.

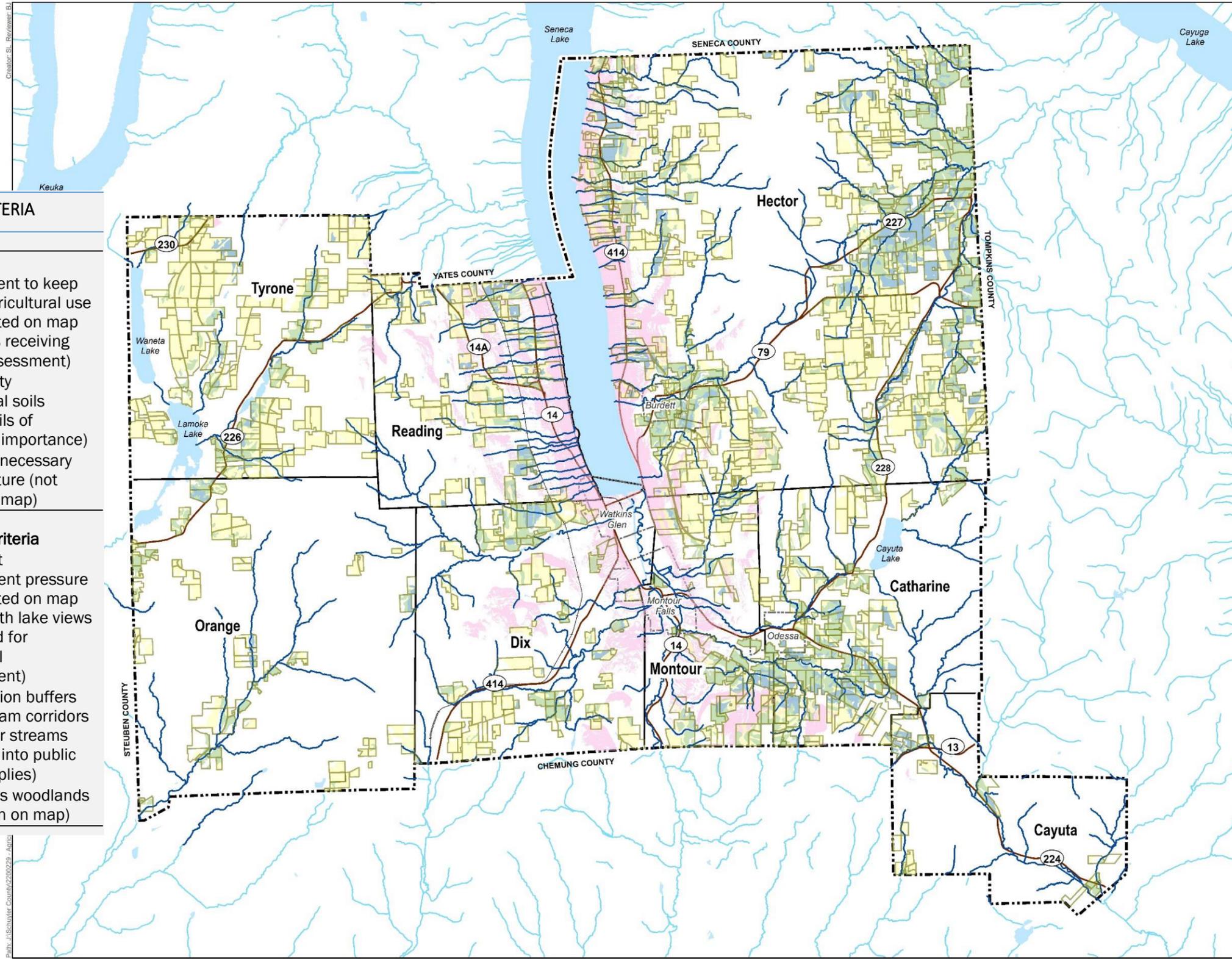
Strategy 7: Increase understanding and appreciation of agriculture among local decision-makers and the public.

- Organize educational events that celebrate agriculture and inform local officials.
- Advocate for State legislation and funding to advance the priorities of this Plan
- Educate Code Enforcement and Animal Control officials regarding ag practices and Ag District protections.

FARM PARCELS SUITABLE FOR VOLUNTARY LONG-TERM PROTECTION

CRITERIA

- Main criteria**
- Commitment to keep land in agricultural use (represented on map as parcels receiving ag use assessment)
 - High quality agricultural soils (prime, soils of statewide importance)
 - Access to necessary infrastructure (not shown on map)
- Additional criteria**
- Significant development pressure (represented on map as land with lake views in demand for residential development)
 - Conservation buffers along stream corridors (priority for streams that drain into public water supplies)
 - Contiguous woodlands (not shown on map)



SCHUYLER COUNTY
 AGRICULTURAL & FARMLAND
 PROTECTION PLAN



FARM PARCELS
SUITABLE FOR
PROTECTION
 MAP #

Parcels With Option by Soil Classification

- All areas are prime farmland
- Farmland of statewide importance
- Prime farmland if drained

- Other**
- Stream Buffer (100ft)
 - Land with views of Seneca Lake (approximate)
 - County Boundary
 - Village Boundary
 - Town Boundary
 - Major Roads
 - Streams
 - Lakes
 - Rail Road



LaBella Project No: 2200229
 OCTOBER 2020

- Sources:
1. Municipal boundaries: NYS Office of Information Technology Services GIS Program Office (GPO)
 2. Hydrography and Streams: New York State Office of Cyber Security (OCS)
 3. Roads: NYSDOT Highway Data Services
 4. Basemap: ESRI
 5. Rail Road: Federal Railroad Administration (FRA)
 6. Lake Views: Prepared by LaBella Associates using ArcGIS Spatial Analyst Viewshed tool based on points visible from a line down the middle of the lake.





Schuyler County Agricultural & Farmland Protection Plan - 2021 Update

A.	INTRODUCTION	1
B.	VISION.....	1
C.	METHODOLOGY.....	2
	STEERING COMMITTEE.....	2
	FARMER AND STAKEHOLDER ENGAGEMENT	2
	PREVIOUS PLANS AND STUDIES	5
D.	LAND BASE FOR AGRICULTURE AND FORESTRY	6
	LAND AREA	6
	SOILS	6
	TYPES OF FARMING.....	8
	SIZE OF FARMS.....	9
	PRESERVED LAND.....	9
	FORESTED LAND.....	10
	LAND USE TRENDS AND DEVELOPMENT PRESSURE.....	23
	RELEVANT PLANS, STUDIES AND PROGRAMS	24
	SUMMARY OF LAND ISSUES & OPPORTUNITIES	26
E.	FARMLAND SUITABLE FOR LONG-TERM PROTECTION	29
F.	FARM OPERATIONS & ECONOMIC IMPACT	33
	TYPES OF FARM OPERATIONS	33
	ECONOMIC IMPACT OF AGRICULTURE.....	34
	AGRI-TOURISM.....	40
	FORESTRY	44
	INFRASTRUCTURE	44
	RELEVANT PLANS, STUDIES AND PROGRAMS.....	45
	SUMMARY OF ISSUES AND OPPORTUNITIES	52
G.	NATURAL RESOURCES, WATER QUALITY	55
	SENECA LAKE WATERSHED	56
	OTHER WATERSHEDS	56
	WOODLANDS & WETLANDS.....	57
	RELEVANT PLANS, STUDIES AND PROGRAMS	57
	SUMMARY OF ISSUES AND OPPORTUNITIES.....	60

H. CLIMATE CHANGE RESILIENCY AND ADAPTATION 63

CLIMATE CHANGE IMPACTS ON CROPS 63

CLIMATE CHANGE IMPACTS ON LIVESTOCK 63

PRECIPITATION IMPACTS 64

INCREASED RISK OF PESTS AND DISEASE 64

RELEVANT PLANS, STUDIES AND PROGRAMS 65

I. INSTITUTIONAL AND PUBLIC SUPPORT 66

OVERVIEW OF EXISTING RESOURCES AND NEEDS 66

RELEVANT PLANS, STUDIES AND PROGRAMS 66

SUMMARY OF ISSUES AND OPPORTUNITIES 67

J. STRATEGIES AND RECOMMENDED ACTIONS 68

PRIORITIES FOR STRATEGIC IMPLEMENTATION 68

STRATEGY 1: EXPAND AND PROMOTE OPPORTUNITIES FOR DIRECT SALES AND AGRITOURISM
 69

**STRATEGY 2: INCREASE ECONOMIC INTEGRATION OF AGRICULTURE AND RELATED
 INDUSTRIES** 70

STRATEGY 3: SUPPORT YOUNG, NEW AND BEGINNING FARMERS 71

STRATEGY 4: RETAIN HIGHLY PRODUCTIVE FARMLAND FOR AGRICULTURAL PRODUCTION.. 72

STRATEGY 5: PROTECT WATER QUALITY AND NATURAL RESOURCES..... 73

**STRATEGY 6: DEVELOP PARTNERSHIPS AMONG FARMERS, MUNICIPALITIES, BUSINESSES
 AND INSTITUTIONS TO RECYCLE FOOD SCRAPS AND OTHER ORGANIC WASTE.....** 73

**STRATEGY 7: INCREASE UNDERSTANDING AND APPRECIATION OF AGRICULTURE AMONG
 LOCAL DECISION-MAKERS AND THE PUBLIC.....** 74

List of Maps

Map 1: Aerial View 13
 MAP 2: Land Cover..... 15
 MAP 3: Agricultural Parcels & Exemptions 17
 MAP 4: Agricultural Soils 19
 MAP 5: Forest Parcels..... 21
 MAP 6: Agricultural Districts..... 27
 MAP 7: Land Suitable for Long-term Protection..... 31
 MAP 8: Watersheds 61

List of Tables

Table 1: Summary of Strengths, Weaknesses, Opportunities and Threats 2/11/203
 Table 2: Land Cover6
 Table 3: Agricultural Soils Classification.....6
 Table 4: Farms by Size.....9
 Table 5: Traveler Spending in Schuyler County, 2018 41

List of Figures

Figure 1: Finger Lakes National Forest..... 11
 FIGURE 2: Watkins Glen Solar Energy Center Site..... 23
 FIGURE 3: Cash Receipts from Farm Marketing, 2009-2018 35
 FIGURE 4: Cash Receipts and Production Expenses from Farm Marketing, 2009 - 2018..... 35
 FIGURE 5: Farm Production Expenses, 2018 36
 FIGURE 6: Farm Production Expenses, 2009-2018..... 36
 FIGURE 7: Farm Employment and Proprietors, 2009 - 2018 37
 FIGURE 8: Total Farm Proprietor Income and Employee Compensation, 2009 - 2018..... 38
 Figure 9: Brown marmorated stink bug (Penn State University)..... 64

List of Photos

Photo 1: Orchard snow (Credit: Schuyler Cornell Cooperative Extension.)2
Photo 2: Grape harvest at Red Newt Winery (Credit: Watkins Glen Area Chamber of Commerce).....8
Photo 3: Hawk Meadow Farm Tour..... 12
Photo 4: New residential development on former farmland, CR 7..... 23
Photo 5: Hay in Meadow (Credit: Watkins Glen Chamber of Commerce) 30
Photo 6: Grapevine vista (Credit: Schuyler Cornell Cooperative Extension) 30
Photo 7: Hoffman dairy farm and cheesery, Odessa (Credit: Richard Owlett) 34
Photo 8: Bottling line, Lakewood Vineyards (Credit: Lakewood Vineyards) 39
Photo 9: Family Farm Experience (Credit: Watkins Glen Area Chamber of Commerce) 39
Photo 10: Agritourism (Credit: Watkins Glen Area Chamber of Commerce) 40
Photo 11 : Ort Farm Tour Sept. 2020 (Credit: Schuyler County Planning Dept.)43
Photo 12: Alpaca farm43
Photo 13: Watkins Glen Farmers Market (Credit: Richard Owlett)43
Photo 14: Apple picking at Reisingers..... 43
Photo 15: Farm equipment on country road (Credit: Richard Owlett) 44
Photo 16: Stone fence (Credit: Jack Wilbert) 55
Photo 17: Farm Field Overlooking Seneca Lake (Credit: Watkins Glen Area C of C)..... 56
Photo 18: Fruit production workshop (Credit: Schuyler County Planning Dept.) 67
Photo 19: Plant sale, 2020 (Credit: Schuyler County Planning Dept.) 74

APPENDICES

- A. Evaluation of Municipal Land Use Regulations**
 - a. Town of Catharine
 - b. Town of Dix
 - c. Town of Montour
 - d. Town of Reading
 - e. Town of Hector (draft zoning regulations)

- B. Stakeholder Interview Summaries**

A. INTRODUCTION

Assisted by a grant from the NYS Department of Agriculture & Markets, Schuyler County initiated an update to its County Agricultural & Farmland Protection Plan during 2019. During the years since the previous plan was updated in 2009, agriculture in Schuyler County has changed and faces new challenges. This updated plan identifies current challenges and opportunities and recommends strategies and actions that leverage Schuyler County's assets.

B. VISION

Schuyler County values its farmland and agricultural heritage and recognizes its contribution to the county's rural character, local economy, and amount of available open space. The county will support programs and strategies that protect prime agricultural land and will work to support the viability and success of agricultural businesses.

Schuyler County will achieve this vision by:

- 1. Continuing to support large dairies, vineyards and other crop farms that are the anchor of the County's agricultural economy.*
- 2. Continuing to support and pursue funding opportunities for farms that market specialty products and experiences directly to consumers, to continue to make Schuyler County known as a diverse destination for agri-tourism.*
- 3. The Schuyler County Ag and Farmland Protection will continue working with local governments to designate the highest quality farmlands as most suitable for continued agricultural use and encourage directing intensive development to other areas.*
- 4. Advocating for additional funding from State and Federal programs and encourage a more streamlined and less cumbersome process for conservation programs to encourage greater participation in these programs.*
- 5. Continue working with Schuyler - Cornell Cooperative Extension (CCE) and Schuyler County Soil and Water to help farms take steps to increase resilience and prepare for changing climate conditions such as increasing frequency of severe weather, flooding or drought. Steps may include enhancing soil health, stabilizing stream corridors, enhancing wildlife habitat, reducing flood hazards, and other actions.*
- 6. Schuyler County Ag and Farmland Protection Board will continue to work to educate residents and local decision-makers on the contributions of agriculture to community character and the local and regional economy.*
- 7. Continue working with Schuyler CCE and private woodland owners to maximize long-term financial equity and forest health, in recognition that forestry is integral to Schuyler County agriculture and complements traditional agriculture through specialized products to diversify farm income, tourism opportunities, and timber harvesting*

C. METHODOLOGY

STEERING COMMITTEE

The following representatives of key agencies involved in agricultural and farmland protection policies and programs in Schuyler County served on a Steering Committee to guide the preparation of this Plan:

- Kristin Van Horn, Director, Schuyler County Planning Department
- Lindsay Wickham, Area Field Advisor, New York Farm Bureau
- Judy McKinney Cherry, Executive Director, Schuyler County Partnership for Economic Development
- Brett Chedzoy, Senior Resource Educator I Agriculture and Natural Resources, Cornell Cooperative Extension Schuyler County

The Steering Committee worked with the planning consultant to facilitate farmer input, identify priority issues and potential strategies, and to review draft documents.

FARMER AND STAKEHOLDER ENGAGEMENT

Farmer input was obtained from members of the Advisory Committee and as part of meetings organized by the Farm Bureau and Cornell Cooperative Extension.

Farmers participating in a farmer input session on February 11, 2020 identified Strengths, Weaknesses, Opportunities and Threats (SWOT) relating to Schuyler County agriculture. The Schuyler County Agricultural & Farmland Protection Board identified additional Strengths, Weaknesses, Opportunities and Threats at its meeting on February 24, 2020. These Strengths, Weaknesses, Opportunities and Threats are summarized in Table 1. Farmer and stakeholder input is summarized in Table 1: Summary of Strengths, Weaknesses, Opportunities and Threats (SWOT.) See Appendix A for a full summary of the farmer and stakeholders interviews.



Photo 1: Orchard snow (Credit: Schuyler Cornell Cooperative Extension.)

TABLE 1: Summary of Strengths, Weaknesses, Opportunities and Threats – Farmer Meeting 2/11/20

Strengths	Weaknesses
<p><u>Farm Operations/ Land/ Climate</u></p> <ul style="list-style-type: none"> ▪ Family farms ▪ Diversity in types of crops, locations and soil types ▪ Agri-tourism ▪ Mennonite Farmers ▪ Large Farms are getting larger (expansion) ▪ Relatively affordable land Little development pressure (for now) ▪ Suitable climate – allows for diversity of crops ▪ Abundance of water ▪ Farmers within the county have figured out how to use the topography of the land to their favor and have become successful. ▪ Sufficient annual rainfall limits need for irrigation (particularly for the vineyards) <p><u>Location</u></p> <ul style="list-style-type: none"> ▪ Close to markets - Central location in State <p><u>Economic Impact/ Integration</u></p> <ul style="list-style-type: none"> ▪ Some integrated business models ▪ Close to suppliers <p><u>Infrastructure</u></p> <ul style="list-style-type: none"> ▪ Decent road network – needed for tractor trailers, deliveries of supplies and grain/ milk transport (Dairy farms typically have 2 milk trucks plus 15-30 manure trucks. The road network can handle these.) <p><u>Tourism Market</u></p> <ul style="list-style-type: none"> ▪ # of wineries – critical mass ▪ Large population of tourists ▪ Tourist attractions – State Park, racetrack, wineries create a destination within NYS ▪ Wine, beer, and cheese trails ▪ Natural Resources - Lakes, State Park, many waterfalls ▪ Finger Lakes “brand” is strong 	<p><u>Markets/ Economic Conditions</u></p> <ul style="list-style-type: none"> ▪ Lack of skilled and unskilled labor/ responsible labor ▪ Small population limits local market for direct sales ▪ Limited processing facilities <ul style="list-style-type: none"> - Labor - Regulations - Lack of USDA facilities will end up hurting Farm-to-Table effort ▪ Lack of support services and suppliers ▪ High cost of doing businesses (largely due to NYS regulations) makes it difficult to compete with farms in PA ▪ Short selling season for direct sales – limited to summer tourism (May through October) <p><u>Farm Operations</u></p> <ul style="list-style-type: none"> ▪ Traffic congestion – difficult to travel through Watkins Glen during the summer; affects efficiencies and farmers’ land purchase decisions due to difficulties bringing equipment to fields ▪ Little land available to expand (especially for dairies); competition for land among farmers <p><u>Regulations/ Political Climate</u></p> <ul style="list-style-type: none"> ▪ NYS Labor Laws and “cost of doing business” ▪ Regulations stifle ability of NYS farms to be competitive outside NYS ▪ Lack of zoning ▪ Issues around migrant workers <p><u>New Farmers/ Succession</u></p> <ul style="list-style-type: none"> ▪ Limited opportunities for new farmers <p><u>Utilities/ Infrastructure</u></p> <ul style="list-style-type: none"> ▪ Limited broadband ▪ Limited cellular phone service ▪ Traffic congestion and road capacity ▪ Some roads not accessible to tractor trailers

Threats	Opportunities
<p><u>Land / Development</u></p> <ul style="list-style-type: none"> ▪ Development, particularly of single family residences, occurring on high-quality farmland ▪ Large-scale solar facilities ▪ Real estate pressure – from Tompkins County and from NYC, NJ, and Long Island <p><u>Succession</u></p> <ul style="list-style-type: none"> ▪ Lack of youth in Agriculture education programs ▪ Lack of awareness among youth of agriculture as a career <p><u>Regulations</u></p> <ul style="list-style-type: none"> ▪ State government regulations ▪ Vilification of “production agriculture” by environmentalists <p><u>Public Perception</u></p> <ul style="list-style-type: none"> ▪ Consumer perceptions of farm practices– require education and awareness to counter ▪ Animal rights activists <p><u>Blights and insect infestations</u></p>	<p><u>Tourism Market</u></p> <ul style="list-style-type: none"> ▪ Finger Lakes region is “hot” right now – Schuyler County is on the map as a tourist designation ▪ Build on tourism market (esp. popularity of Watkins Glen/ Finger Lakes) ▪ Tie-in to tourism promotions of wine and other trails ▪ Allow wine to be sold in supermarkets ▪ Expand lodging opportunities ▪ Expand into year-round industry/ economy ▪ Expand wine and cheese trail ▪ Expand local market – farm markets are not successful ▪ Farm-to-table ▪ Building on U-pick industry ▪ Experiential farming is new niche market ▪ Balance Agri-Tourism – every farm is not right for this type of effort. <p><u>Economic Integration</u></p> <ul style="list-style-type: none"> ▪ Increase direct market and wholesale sales, including wine shipments ▪ Develop small harvest houses – processing facilities for hops and small grain ▪ Develop local processing and/or distribution facilities, such as slaughterhouses and bean storage <p><u>Farmland</u></p> <ul style="list-style-type: none"> ▪ Amish/ Mennonite farmers keep land in farming ▪ Farmland can be made available to new farmers ▪ Introduce potential farmers within the County to farming– people still want to farm ▪ Connect prospective farmland buyers with sellers <p><u>Farm Operations</u></p> <ul style="list-style-type: none"> ▪ New products/ diversification hemp, specialty livestock (i.e., emus for meat and alpacas/ llamas for wool) ▪ Repurpose former dairy farmland and egg growing facilities ▪ Specialty products such as honey, maple syrup, wool, yarn, hemp, hops ▪ Controlled environment agriculture to bolster traditional summer production ▪ Expand housing for farm labor, long-term housing

PREVIOUS PLANS AND STUDIES

Schuyler County and the Ag and Farmland Protection Board (AFPB) will continue to build off the extensive on-going efforts of our partner agencies including Schuyler CCE, and Schuyler County Soil and Water District, Schuyler County Partnership for Economic Development (SCOPED) and the Watkins Glen Area Chamber of Commerce, to continue to identify and prioritize activities to promote agricultural economic development in the county.

This document advances the work completed as part of the following planning initiatives:

- Schuyler County Agricultural Development and Farmland Protection Plan (1999 and 2008 Supplemental Revision)
- Schuyler County's Agriculture Economic Strategy: Focused Development of Agricultural Assets., Cornell Cooperative Extension of Ontario County, October 2009
- Schuyler Countywide Comprehensive Plan (2015)
- Sustaining Places: A Guide to Environmental Planning in Schuyler County report prepared by Southern Tier Central Regional Planning and Development Board (STC), Schuyler County and Randall + West Planners in 2016.

In addition, this plan builds on the strategies recommended in the following regional planning initiatives:

- Southern Tier Central Regional Planning & Development Board's Comprehensive Economic Development Strategy (CEDS) and the 2019 CEDS Update.
- Southern Tier Region Economic Development Council's Southern Tier Soaring plan and 2018 Update, as well as its Upstate Revitalization Initiative (URI) plan, Strategies for Upstate NY: Southern Tier Region.
- Cleaner Greener Southern Tier Regional Sustainability Plan for Broome, Chemung, Chenango, Delaware, Schuyler, Steuben, Tioga and Tompkins Counties, New York (2013)

This plan incorporates recommendations for management practices to protect water quality as identified in the Seneca Lake Watershed Management Plan, prepared between 2011 and 2014, and the ongoing work programs of the Schuyler County Soil & Water Conservation District (SWCD.)

Additional resources and summaries of relevant plans and studies are included in each of the following sections:

- Land Base for Agriculture and Forestry
- Farm Operations and Economic Impact
- Natural Resources and Water Quality
- Institutional Support and Public Understanding

D. LAND BASE FOR AGRICULTURE AND FORESTRY

LAND AREA

Nearly 219,000 acres in Schuyler County – approximately 31% of the County’s land area – is farmland or pasture.¹ More than 54% is forested and 4% is water (excluding the portion of the County’s jurisdiction that includes Seneca Lake.) Only 10% is developed or other land. (See Map 1: Aerial Base Map and Map 2: Land Cover.)

TABLE 2: Land Cover

Land Cover	Acres	% of Total
Cropland or Pasture	68,410	31.20%
Forest	118,381	54.10%
Water	9,051	4.10%
Other	23,142	10.60%
Total:	218,985	100.00%

SOURCE: National Land Cover Database (NLCD) 2016. Computed from GIS shapefiles by LaBella Associates

Parcels with Agriculture Exemption

Approximately 58,221 acres of land are in 1,066 parcels that receive an agricultural use exemption. This exemption is granted to landowners who use their land in a farm operation that produces agricultural products valued at \$10,000 or more. (See Map 3: Agricultural Parcels.)

SOILS

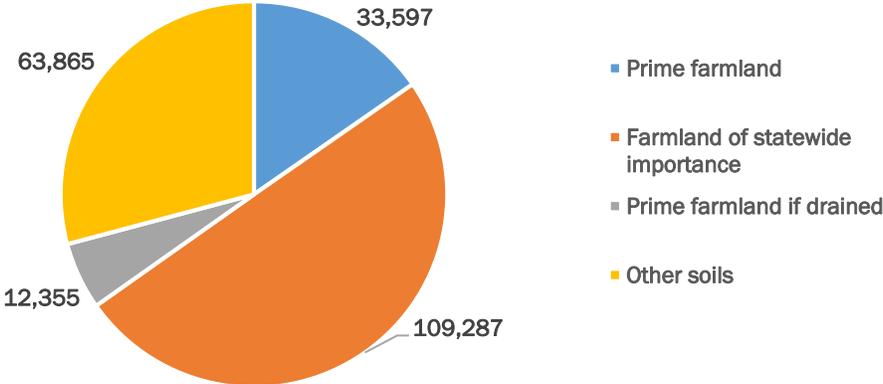
More than 65% of the soils in Schuyler County are classified as either prime or soils of statewide importance. (See Map 4: Agricultural Soils.)

Table 3: Agricultural Soils Classification

Agricultural Soil Classification	Acres	% of Total
Prime farmland	33,596.6	15.3%
Farmland of statewide importance	109,286.7	49.9%
Prime farmland if drained	12,354.8	5.6%
Other soils	63,865.4	29.1%
TOTAL	219,103.6	100.0%

¹ Based on calculations from land cover data.

AGRICULTURAL SOILS CLASSIFICATION



SOURCE: USDA Soil Survey

TYPES OF FARMING

Schuyler County farms are exceptionally diverse. They include: large dairy farms and farms that grow cash crops such as soybeans, corn and wheat; vineyards that grow grapes for winemaking; small farms that produce vegetables; silvopasturing and a variety of livestock. Approximately 1000-1,100 acres in Schuyler are devoted to vineyards, primarily for wine-making.² An additional 100 acres are in commercial orchards and small fruit farming. While the number of acres in these crops are lower than those for dairy and cash crops, fruit and grapes, as well as vegetables and other niche products, generate much more revenue per acre than crops. Additional information about agricultural production is in the following section on economic impact.



Photo 2: Grape harvest at Red Newt Winery (Credit: Watkins Glen Area Chamber of Commerce)

² SOURCE: Hans C. Walter-Peterson, Viticulture Extension Specialist , Cornell Cooperative Extension Finger Lakes Grape Program, via e-mail August 2020

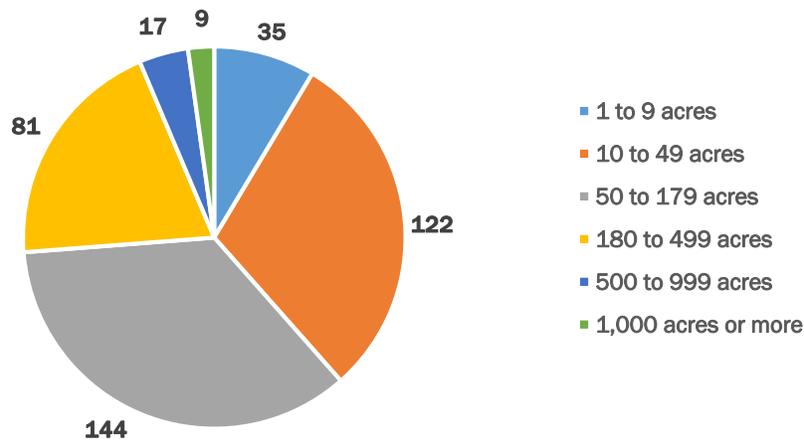
SIZE OF FARMS

Of the approximately 408 farms in Schuyler County, approximately nine are larger than 1000 acres and 17 are between 500 and 999 acres. Most (65%) of the County’s farms are between 10 and 179 acres.

TABLE 4: Farms by Size

Farms by Size	
1 to 9 acres	35
10 to 49 acres	122
50 to 179 acres	144
180 to 499 acres	81
500 to 999 acres	17
1,000 acres or more	9
TOTAL	408

FARMS BY SIZE



SOURCE: Census of Agriculture 2017

PRESERVED LAND

In 2019, NYS Department of Agriculture & Markets awarded \$1,140,769 for the conservation of 513 acres of the Barber Farm, located in the Towns of Hector and Montour. This project will allow the Barber Farm to continue as a dairy while it undergoes a transition to a more diversified farm operation. The **Finger Lakes Land Trust** is worked with the landowners to finalize the acquisition of development rights and will hold the permanent conservation easement attached to the land.

The 107-acre Argetsinger Vineyard is preserved with a conservation easement held by the Finger Lakes Land Trust. The easement purchase was funded in part by the NYS Department of Agriculture & Markets in cooperation with Schuyler County.

FORESTED LAND

Approximately 118,381 acres in Schuyler County are forested (see Map 1: Land Cover and Map 5: Forest Parcels.) The forests in Schuyler County are mostly hardwoods mixed with maturing conifer plantations. These forests are valuable for timber harvesting, recreation and wildlife habitat

Before the mid-19th century, when economic conditions and depleted soil resources led to large-scale abandonment of farmland, nearly all of the forested land was in agricultural use. A majority of the County's forested land is privately owned, with most of these lands owned by hundreds of private landowners. Other large forests are managed by Cornell University for research and educational purposes and by Cotton Hanlon for commercial timbering and recreation. In addition, large areas of forest are currently owned and managed by New York State and the U.S. Forest Service.

Privately Owned Forests

Most of the forested land in Schuyler County is owned by hundreds of private landowners. Much of this land is part of farm parcels, residences or land maintained for recreational use.

Large areas of forested land are owned by private companies or not-for-profit organizations. Cotton Hanlon owns approximately 4,490 acres of forest land and manages leases for hunting, recreation and logging.

Cornell University maintains approximately 2,836 acres of forested land in the Town of Cayuta as the Arnot Teaching and Research Forest as well as 176 acres in the Town of Catharine as the Cayuta Lake Preserve.

Land trusts manage as wildlife refuges and may also purchase land for conservation from private owners and then transfer ownership to a public entity. The Finger Lakes Land Trust maintains 107 acres in the Town of Catharine as the Martin Preserve. It acquired 151 acres in the Town of Montour that adjoins State-owned wetlands. The Nature Conservancy maintains 65 acres adjoining the Goundry Hill State Forest in the Town of Orange.

Forested land often includes or supports recreational facilities such as campgrounds, hunting and fishing, hiking, snowmobiling, horseback riding and bird watching. A segment of the Finger Lakes Trail passes through the Goundry Hill State Forest.

Agricultural Use of Forested Lands

Many agricultural parcels include forested land or other lands that are not actively used for crops or pasture. Many farmers use forested land for complementary activities such as timber harvesting. An increasing number of agroforestry operations in Schuyler County produce maple syrup, mushrooms or other forestry products. Some forests are used to pasture animals, a practice known as "silvopasturing." <https://cpb-us-e1.wpmucdn.com/blogs.cornell.edu/dist/d/5957/files/2015/11/Silvopasturing-utvfu.pdf> .

National Forest

A portion of the Finger Lakes National Forest, the only National Forest in New York State, is located in the northeast portion of Schuyler County. Approximately 16,212 acres (per NYS DEC website) of forest, including approximately 14,810 acres in the Town of Hector, are managed to support a variety of wildlife habitat types as well as recreation and forage for livestock.

A majority of the land in the National Forest was purchased between 1938 and 1941 from willing sellers by the Federal government. The Hector Ranger District is managed as part of the Green Mountain National Forest by the U.S. Forest Service.

Figure 1: Finger Lakes National Forest



SOURCE: NYS Department of Environmental Conservation <https://www.dec.ny.gov/outdoor/66666.html>

State Forest and Wildlife Management Area

The New York State Department of Environmental Conservation (NYSDEC) manages more than 900 acres of State Forests in Schuyler County as well as 3,894 acres of forested land as part of the Connecticut Hill Wildlife Management Area. As shown in Map 5: Forest Land, State Forests located in Schuyler County include all of Sugar Hill, Goundry Hill, Coon Hollow and Texas Hollow State Forests, and portions of Beaver Dams, Dry Run, Cinnamon Lake, South Bradford and Cliffside State Forests. The State Forests are used recreationally for hiking, hunting, camping and other activities.

Much of the land in State Forest was purchased during the 1930s and 1940s as provided for by the 1929 State Reforestation Law. Additional land was purchased during the 1960s under the Park and Recreation Land Acquisition Act. These State Forests are managed in accordance with the Unit Management Plans adopted every 10 years. Each Unit Management Plan identifies actions relating to access, timber and vegetation management, fish and wildlife habitat, public recreation and use, facilities management, land acquisition, mineral resources, and archeological and historic resources.

Most of the 3,894 acres of forested land that comprises the Connecticut Hill York State Wildlife Management Area (WMA) was purchased from private landowners by the Federal government in the 1920s and 1930s and transferred to New York State in 1961. New York State's current management plan for the WMA aims to maintain the proportion of forested acreage at 84% along

with wetlands, grasslands and shrubland habitat to support a diversity of species. Connecticut Hill is designated as an Important Bird Area by Audubon New York.

New York State maintains an additional 506 acres of land as preserved wetlands. Watkins Glen State Park comprises approximately 769 acres. In total, New York State owns 6,269 acres of forest and other natural resource lands in Schuyler County.

Forestry Issues and Opportunities



The use of woodlands for recreation and agroforestry represent opportunities for economic development.

Diseases and pests such as the Emerald Ash Borer threaten the health of forests in Schuyler County.

Research into resilient varieties present opportunities, such as with the new American Chestnut trees.

Photo 3: Hawk Meadow Farm Tour: This mushroom farm operation works with foresters to obtain suitable trees for mushroom cultivation.

Credit: Schuyler Cornell Cooperative Extension

Map 1: Aerial View



**SCHUYLER COUNTY
AGRICULTURAL & FARMLAND
PROTECTION PLAN**



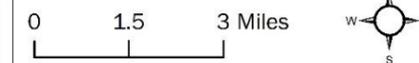
**MAP 1
AERIAL VIEW**

- County Boundary
- Village Boundary
- Town Boundary
- Major Roads
- Lakes
- Railroad



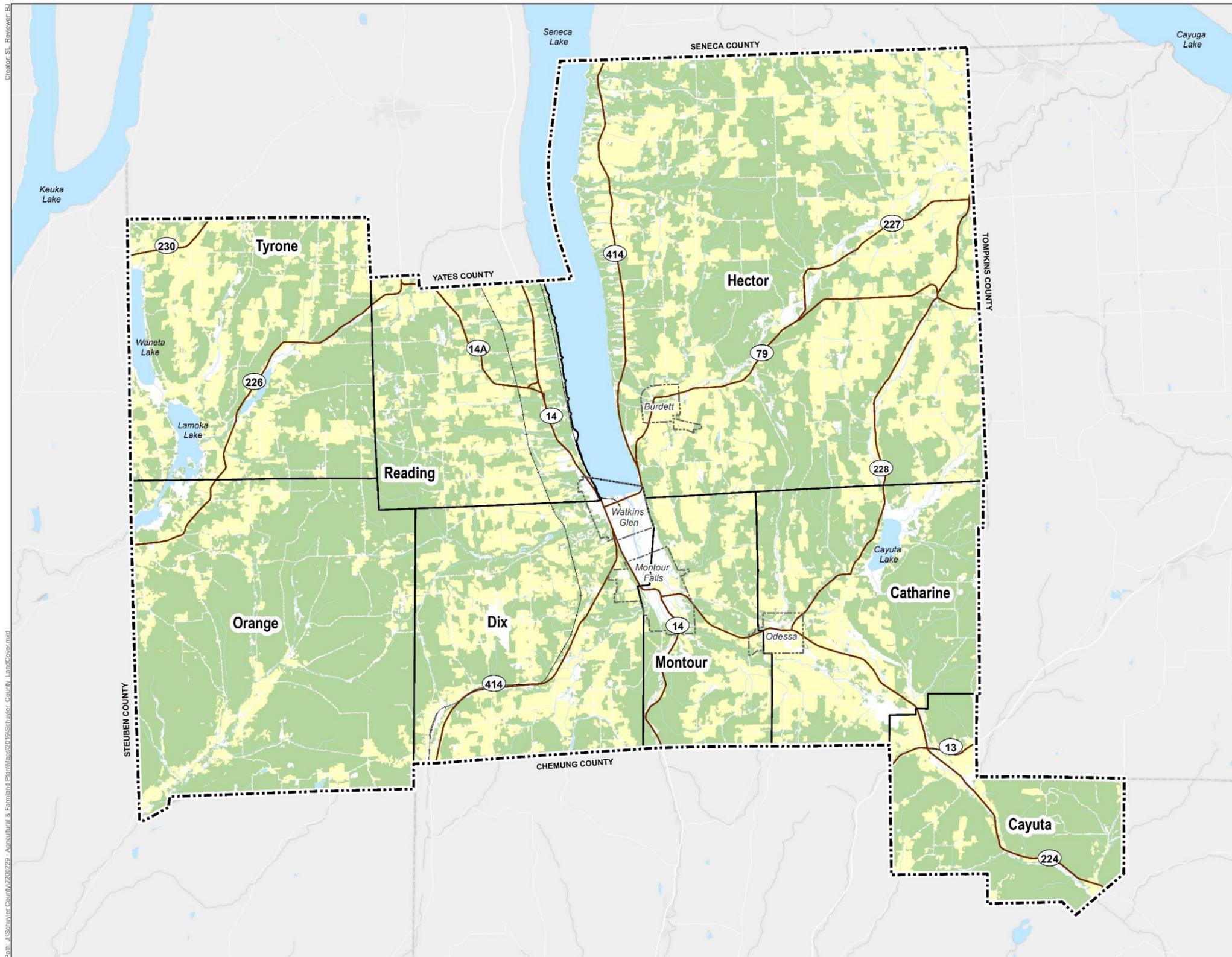
LaBella Project No: 2200229
APRIL 2020

- Sources:
1. Municipal boundaries: NYS Office of Information Technology Services GIS Program Office (GPO)
 2. Hydrography and Streams: New York State Office of Cyber Security (OCS)
 3. Agricultural Parcels (2018): Schuyler County
 4. Roads: NYSDOT Highway Data Services
 5. Basemap: ESRI
 6. Rail Road: Federal Railroad Administration (FRA)



This page is intentionally blank.

MAP 2: Land Cover



SCHUYLER COUNTY
AGRICULTURAL & FARMLAND
PROTECTION PLAN



MAP 2
LAND COVER

- Land Cover Type**
- Cropland /Pasture /Hay
 - Forestry
 - Other
- Map Features Legend:**
- County Boundary
 - Village Boundary
 - Town Boundary
 - Major Roads
 - Rail Road
 - Streams
 - Lakes



LaBella Project No: 2200229
 FEBRUARY 2020

- Sources:**
1. Municipal boundaries: NYS Office of Information Technology Services GIS Program Office (GPO)
 2. Hydrography and Streams: New York State Office of Cyber Security (OCS)
 3. Roads: NYSDOT Highway Data Services
 4. Basemap: ESRI
 5. Rail Road: Federal Railroad Administration (FRA)
 6. Land Cover: The National Land Cover Database (NLCD) (2016)

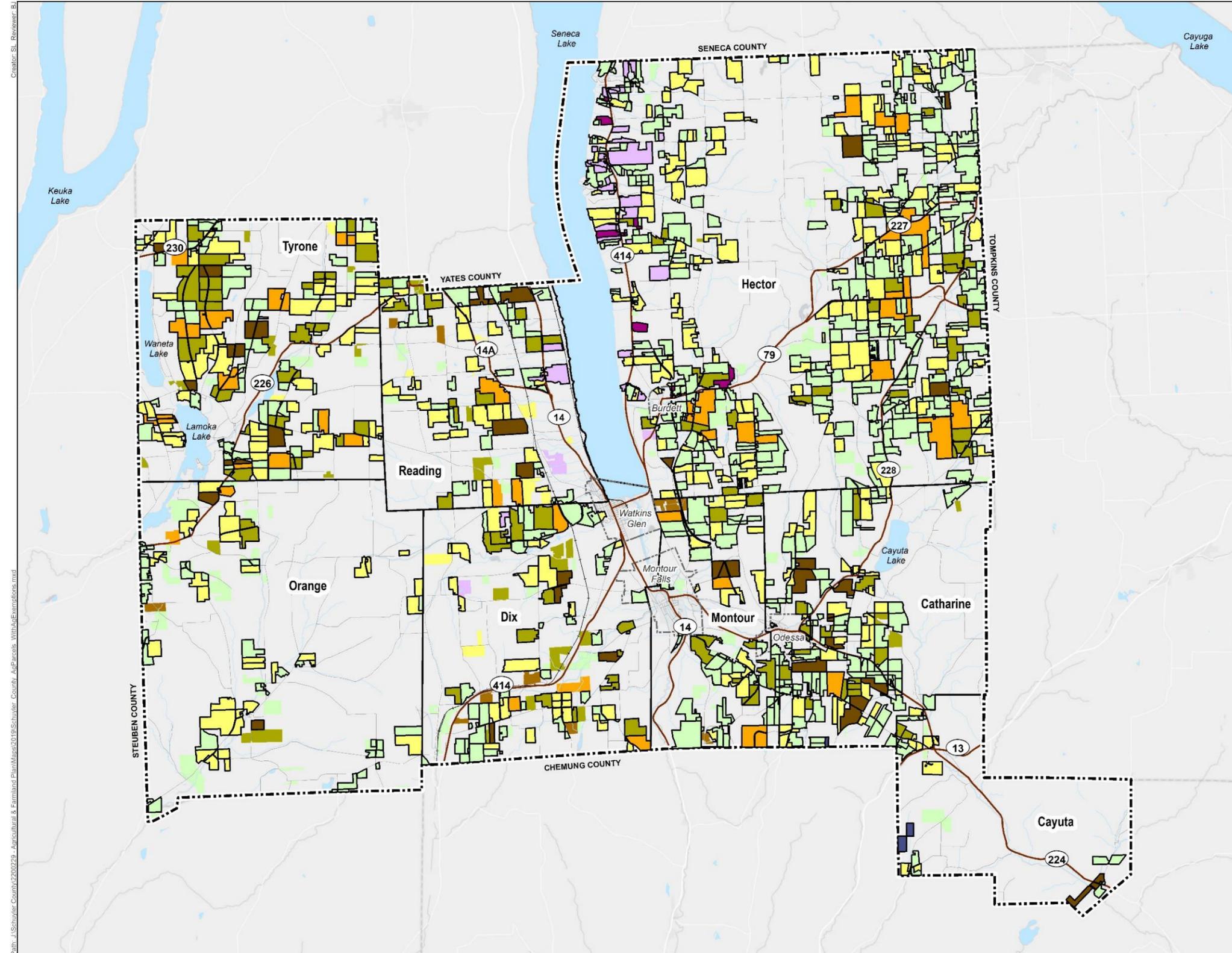


Creator: SL, Reviewer: BJ

Path: J:\Schuyler County\2200229 - Agricultural & Farmland Planning\Mapas\019\Schuyler County LandCover.mxd

This page is intentionally blank.

MAP 3: Agricultural Parcels & Exemptions



Creator: SL, Reviewer: BJ
 Path: J:\Schuyler County\2200229 - Agricultural & Farmland Protection Plan\Map3_0319_Schuyler County AgParcels_WithAgExemptions.mxd

SCHUYLER COUNTY
AGRICULTURAL & FARMLAND
PROTECTION PLAN



MAP 3
AGRICULTURAL PARCELS &
EXEMPTIONS

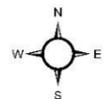
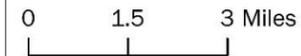
- Parcel with Ag Exemption
- Farmland/Vacant
- Other Livestock
- Dairy
- Field Crops
- Orchard/ Vineyard
- Residential with Ag
- Business/ Storage
- Conservation

- County Boundary
- Village Boundary
- Town Boundary
- Major Roads
- Minor Roads
- Lakes
- Streams
- Railroad



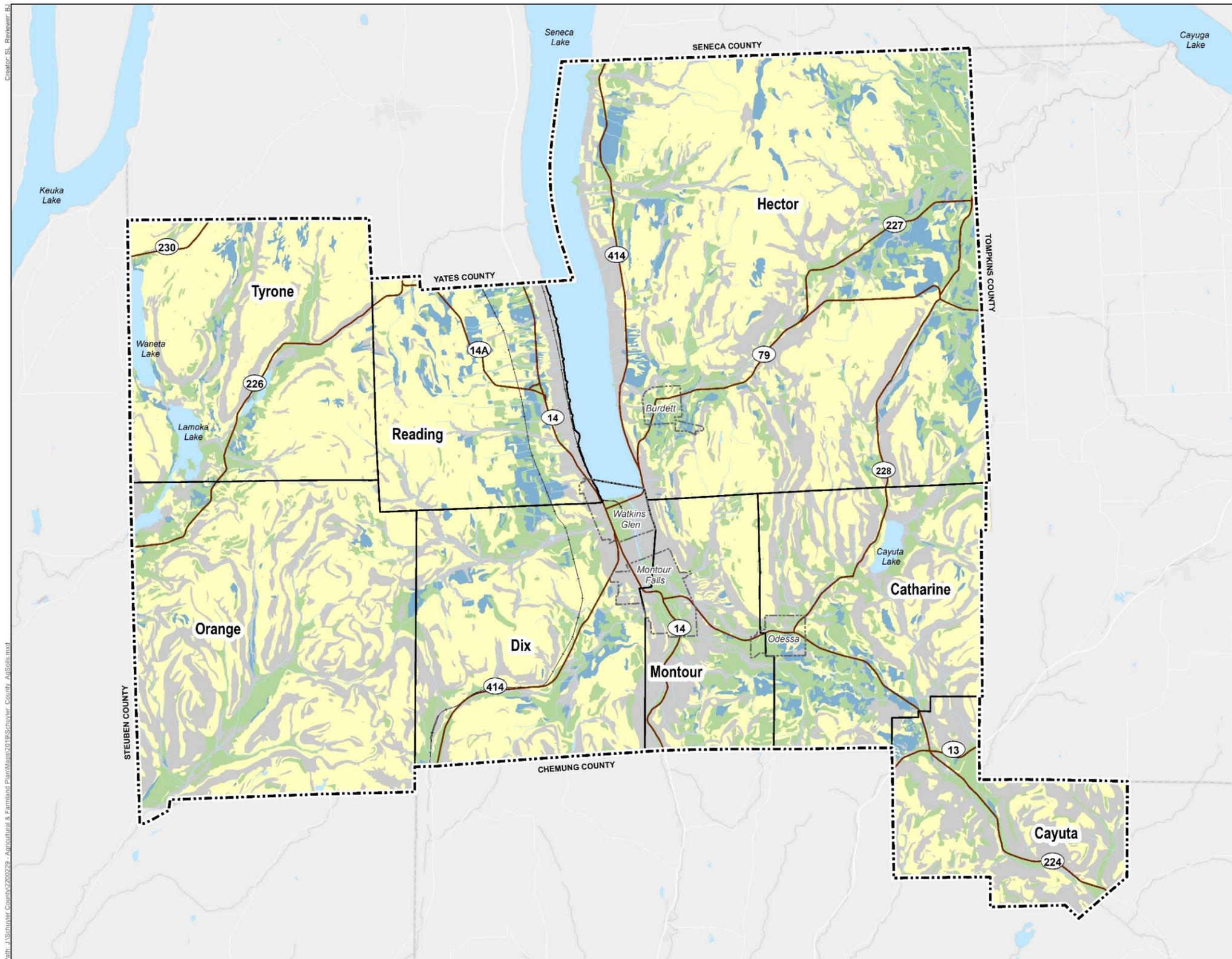
LaBella Project No: 2200229
 APRIL 2020

- Sources:
1. Municipal boundaries: NYS Office of Information Technology Services GIS Program Office (GPO)
 2. Hydrography and Streams: New York State Office of Cyber Security (OCS)
 3. Agricultural Parcels (2018): Schuyler County
 4. Roads: NYSDOT Highway Data Services
 5. Basemap: ESRI
 6. Rail Road: Federal Railroad Administration (FRA)



This page is intentionally blank.

MAP 4: Agricultural Soils



SCHUYLER COUNTY
AGRICULTURAL & FARMLAND
PROTECTION PLAN



MAP 4
AGRICULTURAL SOILS

- Agricultural Soils**
- All areas are prime farmland
 - Farmland of statewide importance
 - Prime farmland if drained
 - Not prime farmland

- County Boundary
- Village Boundary
- Town Boundary
- Major Roads
- Rail Road
- Streams
- Lakes



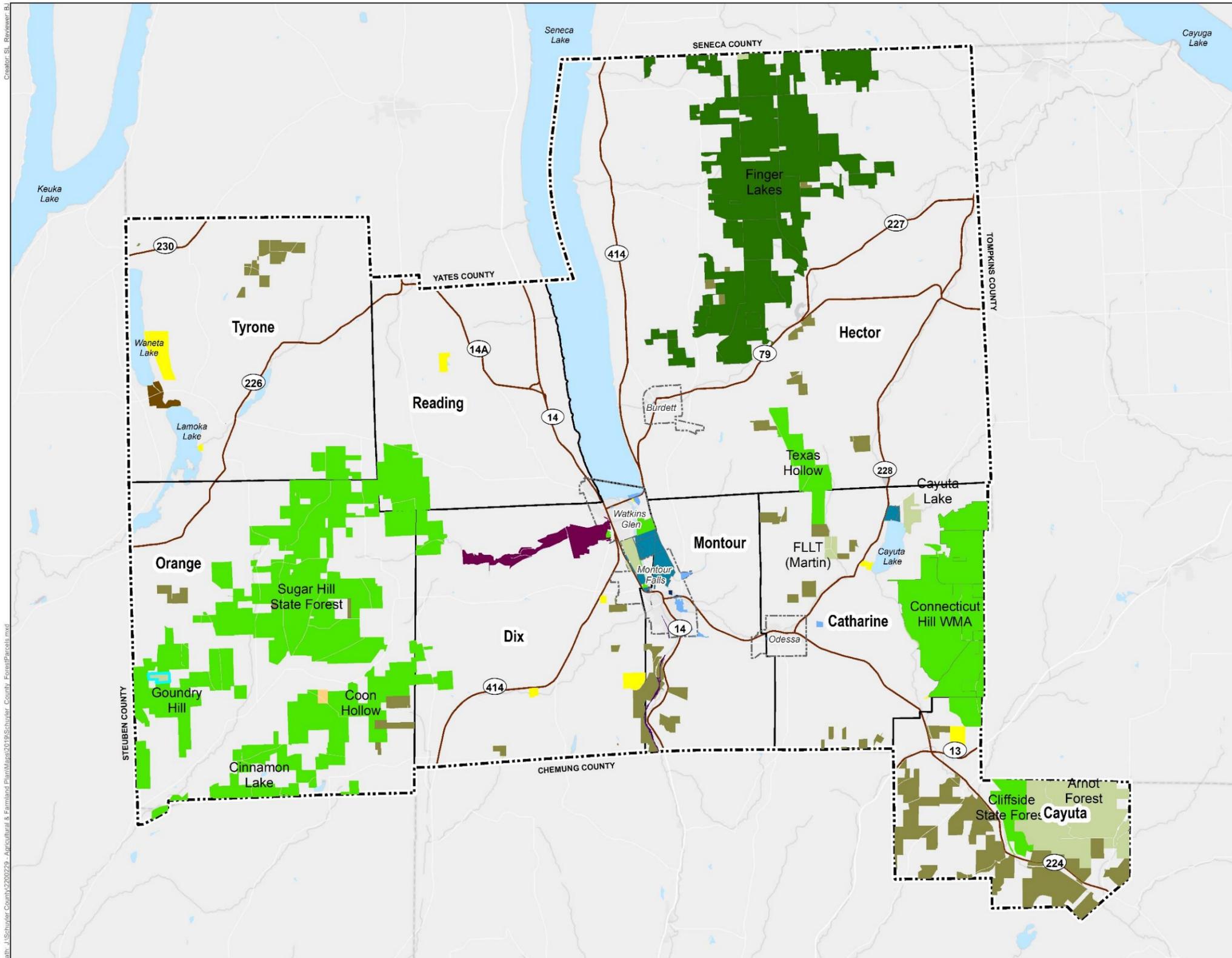
LaBella Project No: 2200229
 FEBRUARY 2020

- Sources:
1. Municipal boundaries: NYS Office of Information Technology Services GIS Program Office (GPO)
 2. Hydrography and Streams: New York State Office of Cyber Security (OCS)
 3. Roads: NYSDOT Highway Data Services
 4. Basemap: ESRI
 5. Rail Road: Federal Railroad Administration (FRA)
 6. Agricultural Soils: USDA



This page is intentionally blank.

MAP 5: Forest Parcels



SCHUYLER COUNTY
AGRICULTURAL & FARMLAND
PROTECTION PLAN



MAP 5
FOREST PARCELS

- National Forest
- State Land**
- State Forest
- State Park
- Wetlands
- Flood Control
- Other Forest or Recreation**
- County-Owned Forest
- Privately-Owned Forest
- Municipal Parkland
- Private Recreation
- Non-Profit or Preserved
- NYSEG (Waneta, Lamoka)
- Village Boundary
- Town Boundary
- Major Roads
- Lakes



LaBella Project No: 2200229
 JUNE 2020

- Sources:
1. Municipal boundaries: NYS Office of Information Technology Services GIS Program Office (GPO)
 2. Hydrography and Streams: New York State Office of Cyber Security (OCS)
 3. Forest Parcels (2018): Schuyler County
 4. Roads: NYSDOT Highway Data Services
 5. Basemap: ESRI
 6. Rail Road: Federal Railroad Administration (FRA)



Creator: SL, Reviewer: BU
 Path: J:\Schuyler County\2200229 - Agricultural & Farmland Plan\Map\2019\Schuyler County ForestParcels.mxd

This page is intentionally blank.

LAND USE TRENDS AND DEVELOPMENT PRESSURE

Farmland in Schuyler County is subject to moderate development pressure associated with residential development, especially in areas with lake views, as well as from large-scale development of renewable energy. The development of new recreational or entertainment facilities may result in the conversion of farmland.

Residential Development



Photo 4: New residential development on former farmland, CR 7

Over the past 10 years, approximately 346 new residences were constructed in Schuyler County towns outside the Villages. Between 2010 and 2019, an average of 35 houses per year were constructed in the Towns outside the Villages; this represents a decrease from 65 houses a year between 2000 and 2009.

Although farms are not under pressure from traditional residential development, such as suburban-style subdivisions, land with lake views and other scenic or recreational value continue to be valuable for residential development. Increasingly, as depicted in the photos below, the construction of new single family residences result in the conversion of large areas of former farmland. Development of second homes or retirement homes has the potential to convert farmland to non-agricultural uses.

Energy Development

Large scale development of renewable energy facilities, particularly solar, has the potential to remove hundreds of acres of farmland from agricultural production.

In 2017, a 50-MW solar energy facility was proposed, through the NYS Article 10 siting process, to be located on approximately 770 acres of land in the Town of Dix. As the figure below illustrates, most of the proposed site is productive agricultural land.

Comments on the proposed project by the NYS Department of Agriculture & Markets indicate concern about the loss of active farmland and high quality agricultural soils, and the cumulative impacts to long-term



FIGURE 2: Watkins Glen Solar Energy Center Site.
(SOURCE: Article 10 filing, NYS Department of Public Service)

viability of agriculture in the area. It noted the need to implement agricultural mitigation during construction and as part of decommissioning.

As New York State's new energy siting process by-passes local approval processes, additional loss of farmland to renewable energy development is a potential threat.

RELEVANT PLANS, STUDIES AND PROGRAMS

NYS Agricultural District Program

Schuyler County has designated three Agricultural Districts comprising approximately 101,000 acres (See Map 6.) Each Agricultural District must be renewed every eight years, at which time parcels may be added or removed. Landowners may request to have their parcels added to an Agricultural District during the Annual Review between January 15th and February 15th. The Schuyler County Planning Department manages the Agricultural District Program.

The Agricultural District program and NYS Agricultural District Law supports the long term economic viability of farming through the following benefits:

- Agricultural use assessment allows eligible farmland to be taxed based on its value for agricultural production, rather than at its fair market value. Landowners must apply annually to receive agricultural use assessment. To be eligible, the land must be used in a farm operation that generates the required minimum gross income.
- Local governments may not enforce laws, ordinances, rules or regulations which would unreasonably restrict or regulate farm operations within an agricultural district, unless it can be shown that the public health or safety is threatened.
- To discourage private nuisance lawsuits, the NYS Department of Agriculture & Markets will issue opinions and interpretations regarding what is considered a "sound agricultural practice"
- To limit impact of projects that receive public funding or require eminent domain, State agencies, local governments and public benefit corporations which intend to acquire more than one acre of land from any active farm within an agricultural district or more than 10 acres in total from a district must file a notice of intent with the Commissioner of Agriculture and the County agricultural and farmland protection board.
- Assessments for special improvement districts are limited to dwellings and to farm structures that directly benefit from the services.

Schuyler County Agricultural & Farmland Protection Plan – 1999 and 2008 Update

Land Base

Schuyler County's 1999 Agricultural Development and Farmland Protection Plan set a goal to, "Maintain a base of 60,000 acres of Schuyler County land in farming, with at least 30,000 in active use for cultivation."

Schuyler County has achieved this goal, as the amount of land in farms and in cultivation has increased over the past 20 years. In part, this is a result of the influx of Mennonite and Amish farmers who have put land into production that may not have been suitable for large mechanized farms. There continues to be a strong local demand for farmland for use in agricultural production.

Analysis of existing land cover indicates that 68,410 acres in Schuyler County continue to be devoted to cropland or pasture. The U.S. Census of Agriculture reports 78,805 acres in farms, with approximately 48,000 (61%) in cropland. The amount of land in farms increased by 18.7% between 2007 and 2017 and the percentage in cultivation increased from 56% to 61%.

Preserved Land

The 1999 Plan set a goal to preserve 20,000 acres through purchase or lease of development rights and other farmland protection mechanisms. The 2008 Update recommended focusing preservation on prime vineyard areas vulnerable to second home development.

Since 2008, two farms – a 107-acre Argetsinger vineyard and the 513-acres Barber dairy farm - have been preserved with funding from the NYS Farmland Protection Implementation Grant Program (purchase of development rights.) The Finger Lakes Land Trust advises farmers in Schuyler County who are interested in purchase of development rights or donating a conservation easement.

Municipal Land Use Regulations

Local land use regulations can help to support agriculture and related businesses. Appendix A presents an evaluation of regulations and recommendations for amendments to remove unreasonable restrictions and support additional investment in agriculture, agri-tourism and related businesses.

NYS Forest Management

NYS manages forests in accordance with Unit Management Plans. These plans include management objectives for a ten-year period. They are prepared in accordance with public participation and other procedures specified in Environmental Conservation Law, Rules and Regulations.

The New York State Forests are certified under both the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative programs. Certification requires adherence to management practices that support long-term ecological, social and economic health.

Sources of Funding and Technical Assistance

Finger Lakes Land Trust - Land Protection

The Finger Lakes Land Trust acquires and holds permanent conservation easements to farmland and natural resources. Farmland easements limit conversion of land to non-agricultural purposes.

NYS Municipal Agricultural & Farmland Protection Grants

The NYS Department of Agriculture & Markets offers grants of up to \$25,000 to municipalities to prepare a local agricultural and farmland protection plan. The grants are not competitive and are awarded on a rolling basis as funds are allocated by NYS. Municipal plans must include an inventory of farmland resources, an evaluation of threats from development

SUMMARY OF LAND ISSUES & OPPORTUNITIES

Availability and Affordability of Farmland

Farmland is available for agricultural use and relatively affordable prices, although competition for land among farmers has increased prices over the last several years. The high cost of land is an obstacle for new and beginning farmers. However, leasing land remains an option. A resource to match available land to farmers seeking land is Finger Lakes LandLink (<http://fingerlakeslandlink.org/>). This searchable database includes both land owners and land seekers.

Conservation Easements

Conservation easements are effective in long-term protection of high quality farmland and provide compensation to farmland owners for the value of development rights. Although many farmers in Schuyler County have expressed interest in participating in purchase of development rights program, only two farms to date has successfully obtained a NYS grant for this purpose. Challenges include:

- Most agricultural soils are classified as “farmland of Statewide importance” rather than “prime farmland,” resulting in a lower ranking in the formula used to rate applicants to the competitive grant program.
- Development pressure in Schuyler County is not as intense as it is in areas closer to cities where there is greater demand for residential subdivisions.

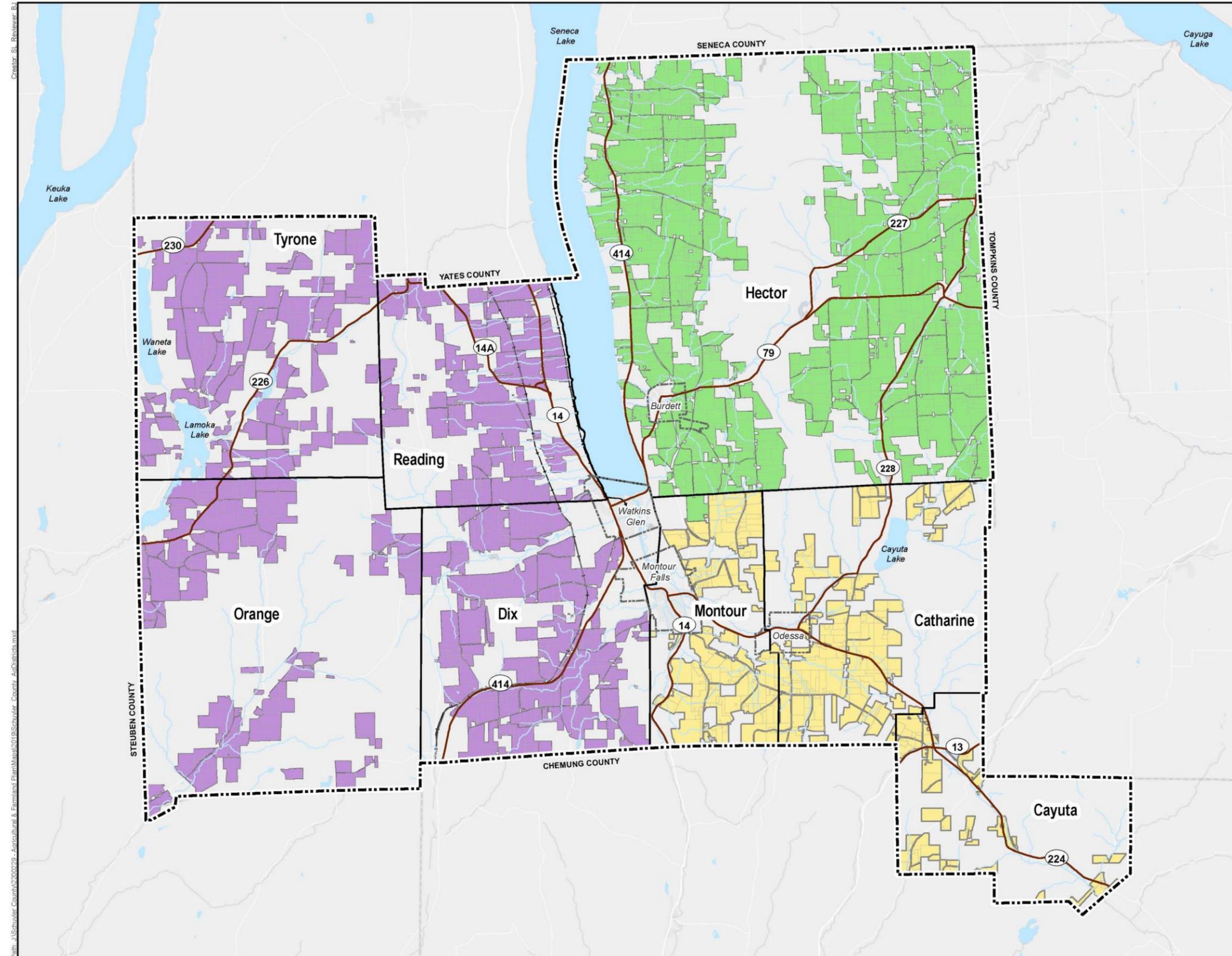
Farms with high quality agricultural soils as well as the following characteristics could make applications for purchase of development rights funding more competitive:

- Land to be preserved includes forest or other vegetated buffer along streams that drain into Seneca Lake
- Farmland has lakeshore views which are highly desirable for residential development

Municipal Land Use Regulations

Municipal land use regulations are not currently affecting demand for farmland. However, municipalities are encouraged to establish zoning districts or solar local laws that prohibit or discourage intensive development, including solar energy generation, on the highest quality farmland. When feasible require that solar grazing practices be utilized.

MAP 6: Agricultural Districts



**SCHUYLER COUNTY
AGRICULTURAL & FARMLAND
PROTECTION PLAN**



**MAP 6
AGRICULTURAL
DISTRICTS**

Agricultural District No.

- 1
- 2
- 3

- County Boundary
- Village Boundary
- Town Boundary
- Parcels (2018)
- Major Roads
- Rail Road
- Streams
- Lakes



LaBella Project No: 2200229
FEBRUARY 2020

- Sources:
1. Municipal boundaries: NYS Office of Information Technology Services GIS Program Office (GPO)
 2. Hydrography and Streams: New York State Office of Cyber Security (OCS)
 3. Parcels (2018): Schuyler County
 4. Roads: NYSDOT Highway Data Services
 5. Basemap: ESRI
 6. Rail Road: Federal Railroad Administration (FRA)
 7. Agricultural Districts: Cornell Institute for Resource Information Sciences (Cornell IRIS) / NYS Department of Agriculture & Markets



Path: \\schuyler-county\2200229_Agricultural & Farmland Protection Plan\Map6\Map6_Schuyler County_AgDistricts.mxd

This page is intentionally blank.

E. FARMLAND SUITABLE FOR LONG-TERM PROTECTION

This plan identifies those farm parcels that are most suitable for long-term protection. The primary consideration for long term protection is that the farmland is of high quality and is viable for continued agricultural use, with high quality agricultural soils, a longstanding commitment by the farm operator to continue farming, access to necessary infrastructure and located near other farmland with a minimum of potentially incompatible neighboring land uses. Supporting characteristics include the extent of development pressure and the role of the farmland in protecting water quality and natural resources.

Map 7: Farmland Suitable for Long-term Protection is intended to guide Schuyler County, municipalities, landowners and conservation organizations in identifying farmland that is most suitable for long-term protection.

To guide the evaluation of agricultural viability, this map identifies:

- parcels that are currently farmed, based on tax parcel classification and aerial photos
- parcels that are currently assessed based on their agricultural use value, as the owners of these lands have demonstrated a commitment to continue farming
- the agricultural soils classification of land within each parcel, with soils classified as “prime,” “prime if drained” and “soils of statewide importance” considered to be high quality agricultural soils

To guide the evaluation of natural resource value, the map depicts streams and a 100-foot wide riparian buffer. Farmland that includes streams that drain into Seneca or Cayuga Lake are have exceptional natural resource value as these waterbodies are sources of public drinking water. Long-term preservation of land that includes these streams should identify conservation buffers along the stream corridor. (See Section F: Natural Resources and Water Quality, for more information.)

Not mapped, but an important consideration in natural resource value and visible in the aerial photo, is the presence of woodlands that may both support the farm economically and provide critical ecological and wildlife value.

The map also depicts the approximately location of lands with a view of Seneca Lake, which contributes to the intensity of development pressure relating to residential and recreational development. Other factors contributing to development pressure include location along a major highway and the availability of utilities such as water, sewer, high-speed internet and natural gas.

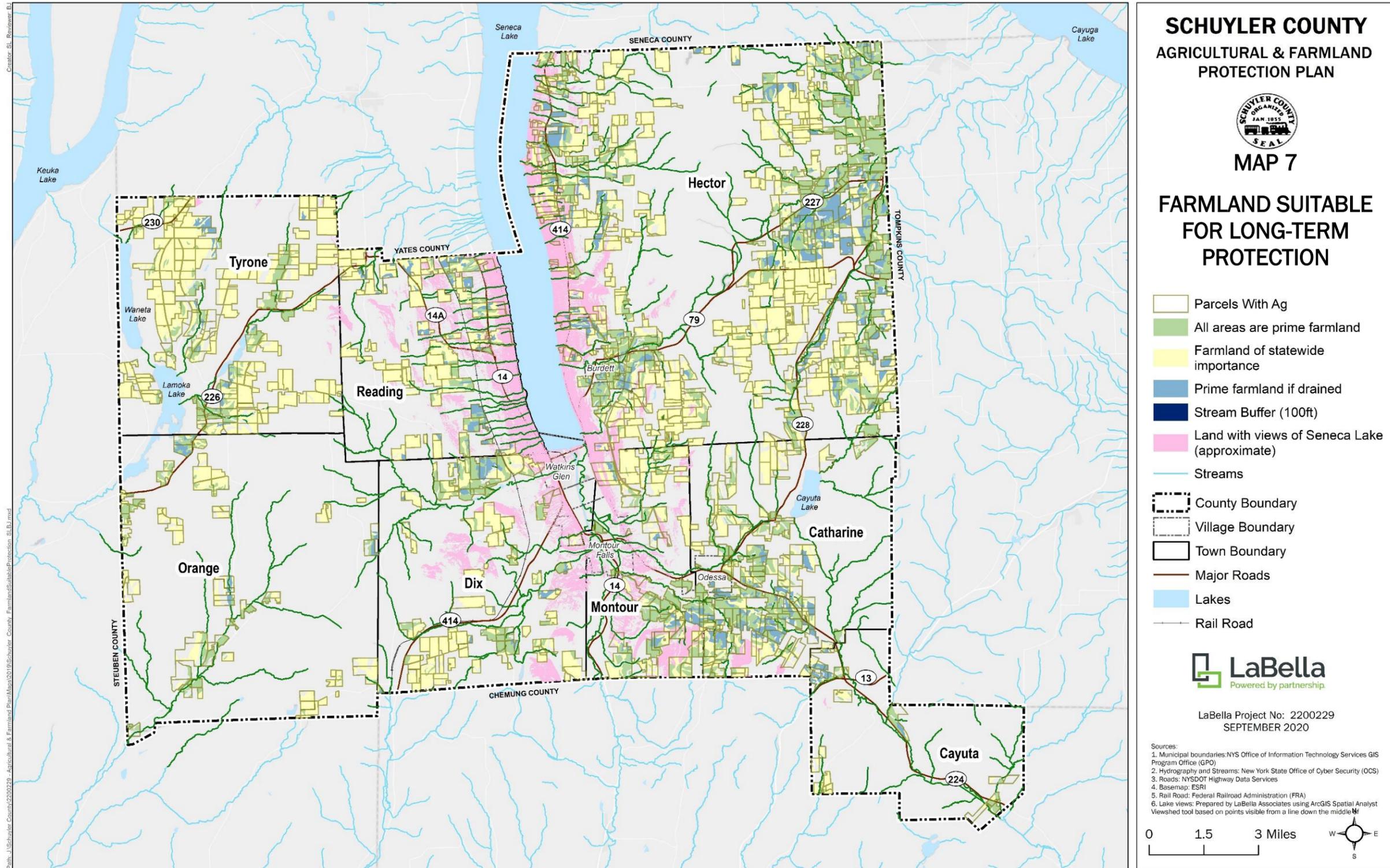


Photo 5: Hay in Meadow (Credit: Watkins Glen Chamber of Commerce)



Photo 6: Grapevine vista (Credit: Schuyler Cornell Cooperative Extension)

MAP 7: Land Suitable for Long-term Protection



This page is intentionally blank.

F. FARM OPERATIONS & ECONOMIC IMPACT

Agriculture is a major industry in Schuyler County. Agriculture and related businesses, in particular wineries, complement the County’s tourism economy. Owner-operated vineyards comprise a relatively new economic cluster that has come into prominence over the last two decades.

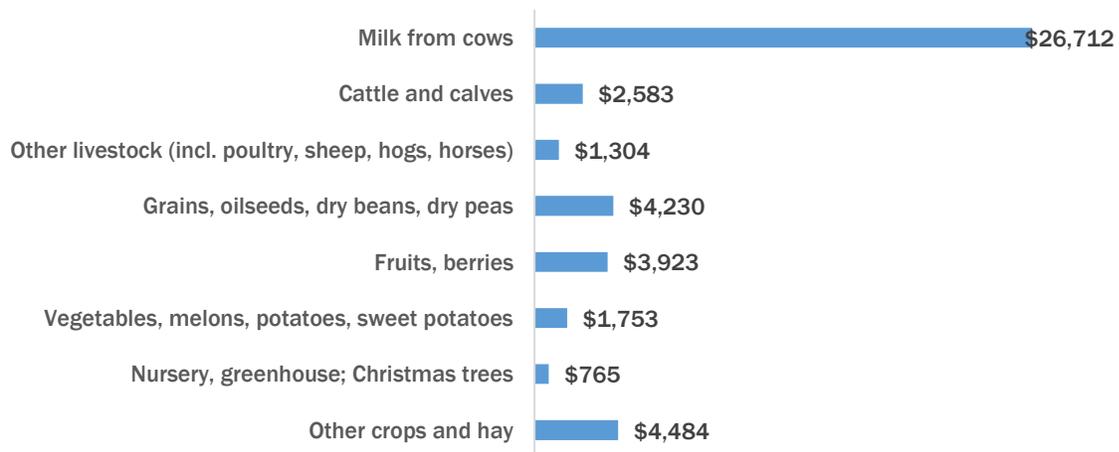
TYPES OF FARM OPERATIONS

Sales of Agricultural Products

Based on the 2017 Census of Agriculture, sales of products from farm operations in Schuyler County generated approximately \$45,753,000 in sales in 2017. Sales of dairy products were valued at \$26,712,000, or 58% of the total value of agricultural products sold in Schuyler County.

FIGURE 3: Market Value of Products Sold (\$1,000s)

MARKET VALUE OF PRODUCTS SOLD (\$1,000s)



Source: U.S. Census of Agriculture, 2017

ECONOMIC IMPACT OF AGRICULTURE



Photo 7: Hoffman dairy farm and cheesery, Odessa (Credit: Richard Owlett)

Data from the U.S. Census of Agriculture and the U.S. Bureau of Economic Analysis quantify the economic impact of farming and related industries. Based on 2018 BEA data, sales of farm products comprise approximately 7.3% of the County's total 2018 Real Gross Domestic Product of \$541,201,000.³ Based on employment, agriculture represents 6.4% of all jobs and 2.4% of all earnings.

In addition to directly providing jobs and earnings, agriculture complements other industries in Schuyler County, including beverage manufacturing, retail sales, distribution and storage, accommodations and food services. The Schuyler County Partnership for Economic Development (SCOPED) estimates that \$100,000 in economic activity is directly related to agriculture, including vineyards and forestry.

Farm Income and Production Expenses

Agriculture in Schuyler County generates income and supports a variety of local businesses. Based on data from the U.S. Bureau of Economic Analysis, sales of farm products totaled \$39,395,000 in 2018, which is 8% lower than the 10-year average. The value of sales from dairy and other livestock and their products was \$30,597,000, which represents 78% of the total market value of agricultural products sold. This amount is just 1% lower than the 10-year average but 29% lower than the 2014 peak. In 2018, receipts from crop sales was \$8,798,000, which is 26% lower than the 10-year average.

³ Bureau of Economic Analysis, Real Gross Domestic Product by County, 2015 – 2018, <https://www.bea.gov/data/gdp/gdp-county-metro-and-other-areas>

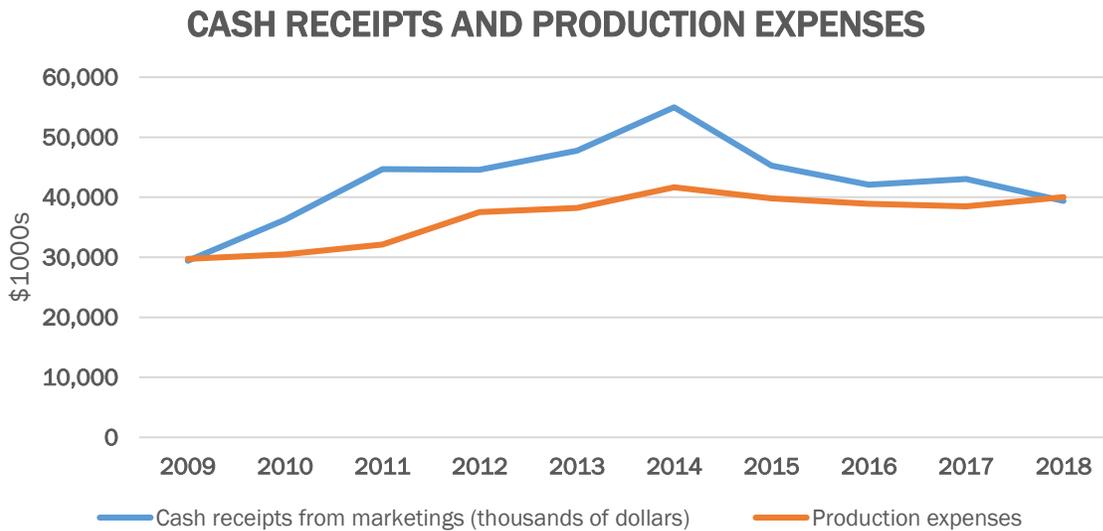
FIGURE 3: Cash Receipts from Farm Marketing, 2009-2018



SOURCE: U.S. Bureau of Economic Analysis, Table CAINC45: Farm Income and Expenses

While the value of sales decreased after 2014, the cost of production did not. The chart below illustrates the financial difficulties that farms experienced in 2018, as production expenses were higher than cash receipts.

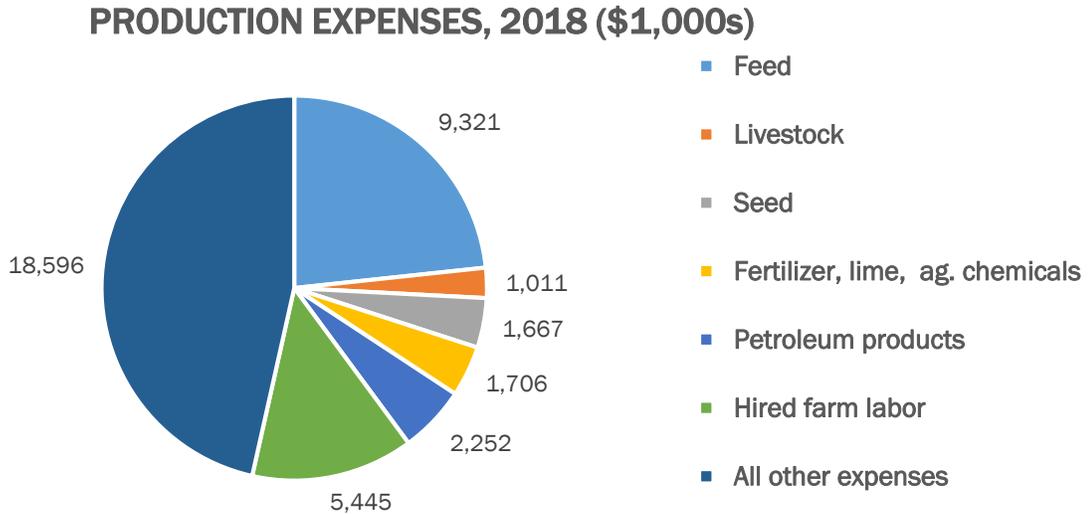
FIGURE 4: Cash Receipts and Production Expenses from Farm Marketing, 2009 - 2018



SOURCE: U.S. Bureau of Economic Analysis, Table CAINC45: Farm Income and Expenses

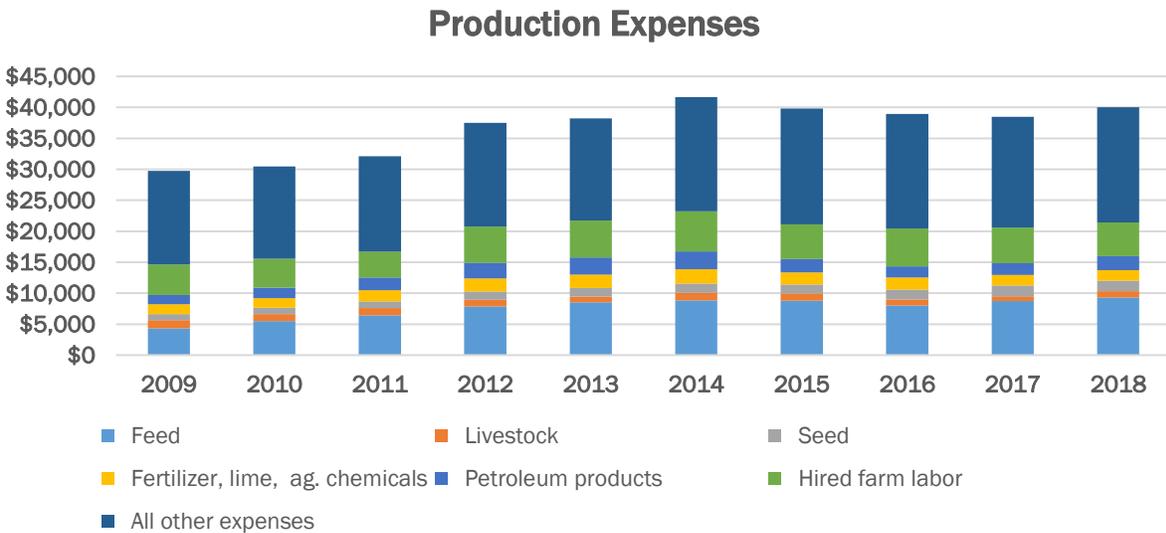
Production expenses include the cost of purchasing feed, seed, livestock and chemicals. The cost of hired labor represents 14% of the total. Production expenses have not varied significantly between 2012 and 2018.

FIGURE 5: Farm Production Expenses, 2018



SOURCE: U.S. Bureau of Economic Analysis, Table CAINC45 - Farm Income and Expenses

FIGURE 6: Farm Production Expenses, 2009-2018

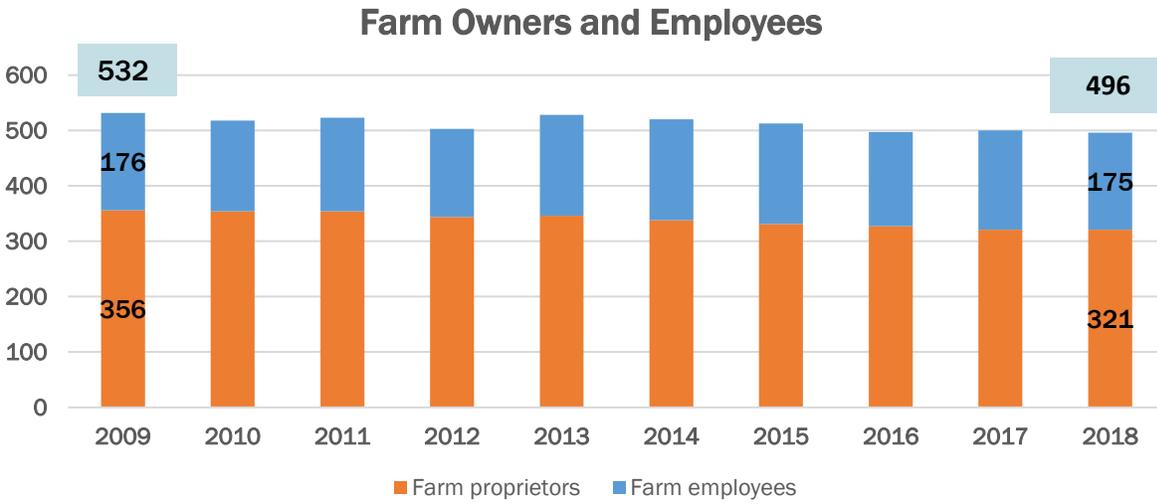


SOURCE: U.S. Bureau of Economic Analysis, Table CAINC45 - Farm Income and Expenses

Employment

According to the U.S. Bureau of Economic Analysis, approximately 496 people work at farms in Schuyler County, including 321 farm owners (proprietors.) The 817 farm owners and employees comprise 7.9% of all employment in the County. Between 2009 and 2018, the number of people employed by farms stayed the same, but the number of farm owners steadily decreased from 356 to 321.

FIGURE 7: Farm Employment and Proprietors, 2009 - 2018

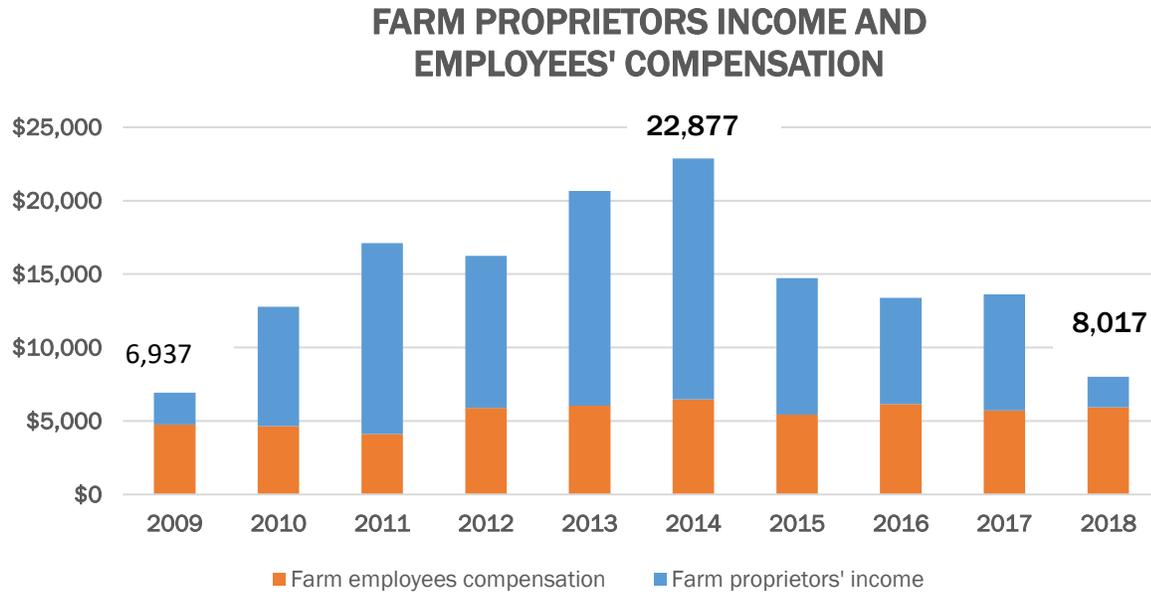


Source: Bureau of Economic Analysis, 2018, Table CAEMP25N: Total Full-Time and Part-Time Employment by NAICS Industry

Farm earnings - the sum of wage and salary disbursements, supplements to wages and salaries, and proprietors' income - hit a peak of \$22,877,000 in 2014 but declined to \$8,017,000 in 2018. As the chart below shows, earnings of farm employees were stable, but income of farm owners dropped from an average of \$48,512 per farm owner in 2014 to \$6,464 per farm owner in 2018.

Income generated by farms represent 2.4% of all income earned by Schuyler County residents.

FIGURE 8: Total Farm Proprietor Income and Employee Compensation, 2009 - 2018



SOURCE: U.S. Bureau of Economic Analysis, Table CAINC45 - Farm Income and Expenses

Support services, processing, distribution

Farms in Schuyler County purchase goods and services as inputs to agricultural production. Distribution, sales and processing of farm products also contribute to the agricultural economy. The value of sales in industries related to agriculture, plus the value of goods purchased by employees who work in agriculture and related industries, is estimated at \$1.6 per dollar of agricultural production. Applying a “multiplier” of 1.6 to the annual agricultural sales of \$39.4 million, agriculture is estimated to generate \$63 million sales annually. Although a significant portion of agricultural inputs and support services are purchased from businesses located outside the region, the purchase of supplies and services for agricultural production and local spending by farm and winery employees and owners contributes to the Schuyler County economy.

Wine, Beer, and other Beverages

Income generated by beverage manufacturing – primarily wineries – represent another 2.4% of all income earned by Schuyler County residents, which is the same as income earned by farm owners and their employees.

According to a 2015 report on the economic impact of the craft beer industry, the 9 breweries in Schuyler County were responsible for 144 brewery jobs and 173 total jobs. They generated \$10,023,401 in total wages and \$44,530,387 in total output (value of product sold.)

<https://newyorkcraftbeer.com/economic-impact-county/>



Photo 8: Bottling line, Lakewood Vineyards (Credit: Lakewood Vineyards)



Photo 9: Family Farm Experience (Credit: Watkins Glen Area Chamber of Commerce)

AGRI-TOURISM

Schuyler County’s wineries, breweries, farm markets, and roadside stands contribute to the County’s significant tourism economy. The contribution of these businesses to the regional economy is larger than the value of agricultural products alone.



Photo 10: Agritourism (Credit: Watkins Glen Area Chamber of Commerce)

Overview of Schuyler County’s Tourism Economy 4

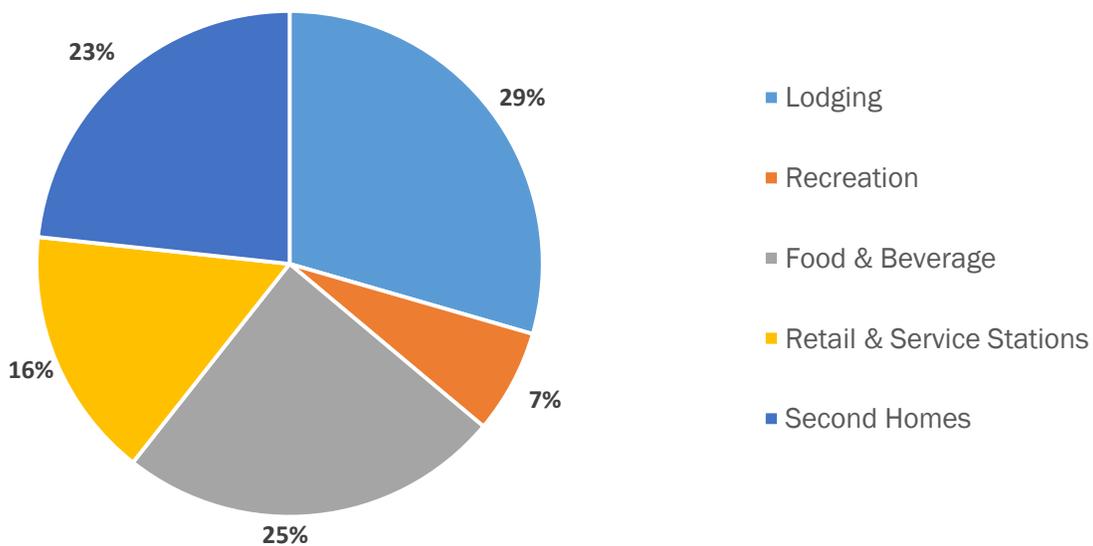
Based on a study of the economic impact of tourism in the Finger Lakes in 2018, travelers spend approximately \$54,138,000 annually in Schuyler County. Restaurants and lodging comprise the largest component of tourism spending at 31% and 25% of the total, respectively. This amount increased by 8.2% between 2017 and 2018.

⁴ Source: Tourism Economics, “The Economic Impact of Tourism in New York, 2018 Calendar Year, Finger Lakes Focus.”
<https://www.fingerlakes.org/sites/default/files/Research%20Center/NYS%20Tourism%20Impact%202018%20-%20Finger%20Lakes.pdf>

TABLE 5: Traveler Spending in Schuyler County, 2018

Category	Traveler Spending	% of Total
Lodging	\$ 15,956,000	29.5%
Recreation	\$ 3,593,000	6.6%
Food & Beverage	\$ 13,271,670	24.5%
Retail & Service Stations	\$ 8,701,000	16.1%
Second Homes	\$ 12,616,000	23.3%
Total	\$ 54,137,670	100.0%

TRAVELER SPENDING, SCHUYLER COUNTY, 2018



Source: Tourism Economics, “The Economic Impact of Tourism in New York, 2018 Calendar Year, Finger Lakes Focus.”

Labor income from tourism in 2008 was estimated at \$10,584 in direct income. Plus \$17,477 in indirect and induced income. This represents 8.8% of total labor income in Schuyler County.

Tourism directly supported 483 jobs in Schuyler County. An addition 203 jobs were supported indirectly or induced by tourism employment. Schuyler County is the most dependent of all counties in the Finger Lakes region on tourism income, with 13.8% of all employment sustained by visitors.

Tourism also provides significant County and local tax revenue. Local tourism-generated tax revenue in Schuyler County was \$4,024,435 in 2018. “Accommodations and food service” –key components of the tourism economy – represent 6.8% of income earned by County residents. This category includes lodging and restaurants. Retail, recreation and transportation businesses also benefit from tourism. The inter-related economic impact of agriculture, wineries and other beverage trails, and tourism contribute significantly to the economic well-being of Schuyler County residents.

Wine, Beverage and Cheese Trails

The Seneca Wine Trail, the “Craft Your Beverage” Trail, and the Finger Lakes Cheese Alliance are not-for-profit organizations that coordinate marketing among wine, beverage and cheese producers in Schuyler County and the surrounding region. Seneca Wine Trail marketing attracts tens of thousands of tourists to Schuyler County annually. The tourist traffic drives sales of wine, which supports the wine manufacturing industry and the vineyards that grow grapes used to make wine. The smaller beverage and cheese trails complement the wine trail and

During 2019, nine Schuyler County wineries participated in the Seneca Wine Trail and nine breweries or distilleries participate in the “Craft Your Adventure Beverage Trail:”

The Finger Lakes Cheese Alliance, based at 4970 County Road 14, Odessa, provides central marketing to its members. Two farms in Schuyler County were members during 2019.

Other Agri-tourism Attractions

Other agri-tourism attractions in Schuyler County include the Finger Lakes Cheese Festival and educational programs associated with mushroom harvesting in area forests.

The following cooperative marketing and agritourism initiatives have been successful in attracting tourists to Schuyler County and helping farms to expand niche markets.

- Seneca Lake Wine Trail and other organizations have obtained grant funding to support marketing efforts.
- Finger Lakes Culinary Bounty, a collaborative regional food network, continues to educate consumers and connect producers with restaurants and consumers interested in purchasing local farm products. <https://flcb.org/>
- “Meat Suite” is a web site that connects consumers with producers of meat. Cornell Cooperative Extension of Tompkins County manages the website. The program was established with financial assistance from a Northeast Sustainable Agriculture Research and Education (SARE) grant through the USDA National Institute of Food and Agriculture. <https://www.meatsuite.com/>
- Harvest Schuyler, a program administered by Cornell Cooperative Extension of Schuyler County, supports local farmers and food producers by building connections with buyers (restauranters, chefs, bed and breakfast operators and others.) Activities include a weekly e-newsletter, November social event, and a mid-winter farmer-buyer “speed networking” event. <http://cceschuyler.org/agriculture/harvest-schuyler>
- The Watkins Glen Farmers Market continues to operate every Friday, 3 pm to 7 pm at Lafayette Park in downtown Watkins Glen. The Montour Falls Farmers Market no longer operates a stand-alone farmers market but a new organization, Montour Market, operates a Community Supported Agriculture (CSA) program featuring local farm products. <https://northnewyork.com/>
- CCE maintains programs to provide technical assistance to dairies to establish cheese operations

SCHUYLER COUNTY AGRICULTURAL & FARMLAND PROTECTION PLAN



*Photo 11 : Ort Farm Tour Sept. 2020
(Credit: Schuyler Cornell Cooperative Extension.)*



*Photo 12: Alpaca farm
(Credit: Schuyler Cornell Cooperative Extension.)*



*Photo 13: Watkins Glen Farmers Market
(Credit: Richard Owlett)*



*Photo 14: Apple picking at Reisingers
(Credit: Watkins Glen Area Chamber of Commerce)*

FORESTRY

Forests can provide economic opportunities through timber harvesting, hunting and other forms of recreation, or harvesting of special products cultivated through “agro-forestry.”

Within the practice of agroforestry, or mixing trees with agricultural production, the concept of silvopasture has some of the broadest appeal. Many farms already work with livestock and making good use of forested land for multiple yields is highly beneficial to the farmer. Within Schuyler County this is becoming a growing sector and has the ability to grow diverse crops on small acreage. Additionally, silvopasturing can be an attractive option for young and beginning farmers due to its relatively low requirements of entry.

Many farmers and farmland owners derive income from harvesting trees for sawtimber, pulpwood, firewood and posts/ poles. The revenue generated from Schuyler County’s woodlands comprises a significant portion of many farms’ income.

In addition, the following forest products may be harvested from the County’s woodlands:

- berries and wild fruits
- cones and seeds
- cooking wood, smoke wood and flavorwood
- decorative wood
- maple syrup
- mushrooms
- forest botanicals used as flavorings, medicinals or pharmaceuticals
- greenery and floral products
- honey
- weaving and dyeing materials
- specialty wood products using species not harvested through logging, such as basswood
- bio-char
- wood for furniture

<https://cpb-us-e1.wpmucdn.com/blogs.cornell.edu/dist/d/5957/files/2015/03/Marketing-Special-Forest-Products-in-New-York-State-2oepj4m.pdf>

INFRASTRUCTURE

Roads

Schuyler County’s network of State, County and local roads support distribution of farm products and delivery of supplies to farms. The County’s roads and highways are also used to move farm equipment between farm fields (as shown in the photo to the right.)



*Photo 11: Farm equipment on country road
(Credit: Richard Owlett)*

High-Speed Internet

High-speed internet is available in portions of Schuyler County through Spectrum (cable), Empire Access and Haefle. The Southern Tier Network, which serves members of a cooperative, has extended the fiber optic infrastructure for high-speed internet to certain locations in Schuyler County.

Farms in some areas of the County do not have access to high-speed internet, which is essential for digital communications, e-commerce and modern farm management. STN in partnership with Schuyler County applied for funding through the U.S. Department of Agriculture in 2020 to extend the infrastructure within Schuyler County.

Electricity

Many areas within Schuyler County do not have access to 3-phase power, which would support more intensive use of heavy machinery. The cost to extending 3-phase capacity is prohibitive for many farm operations, because farms are generally located far from other industries and densely populated areas. The lack of 3-phase power constrains farms from installing automation that would make their operation more efficient and to incorporate value added processes that require specialized equipment.

RELEVANT PLANS, STUDIES AND PROGRAMS

Schuyler County Agricultural & Farmland Protection Plan – 1999 and 2008 Update

Economic Base

The 1999 Plan included a goal to diversify and broaden the agricultural economic base to include additional sales of greenhouse, fruit, vegetable, poultry, sheep, goats, beef and other diversified products. Between 1999 and 2008, sales of fruits, nuts and berries were up 23.5% (inflation adjusted.) The 2008 updated recommendation was to continue focus on the wine industry and other niche markets such as sheep and dairy products. Recommended initiatives included encouraging stores to carry local products, increase agri-tourism marketing and support additional direct marketing of meat and produce.

- Many of these recommended initiatives are underway in 2020. Growth in the wine industry has driven increased earnings in beverage manufacturing and food and beverage stores. Wineries, breweries, distilleries and cideries also attract visitors that support the tourism economy. However, the number of acres devoted to grapes is a small percentage of the total land in agriculture. Cornell Cooperative Extension's Regional Grape Specialist Hans C. Walter-Peterson estimates that the amount of land in vineyards has remained steady over the past decade at approximately 1000 – 1100 acres. An additional 100 acres of land is in commercial orchard and small fruit operations.⁵

⁵ SOURCE: E-mail from Hans C. Walter-Peterson, 8/18/20. (Note that data from the U.S. Census of Agriculture, which reported a decline between 2007 and 2017 in the number of acres used to produce fruit, nuts and berries, from 8,435 to 3,923, is based on small samples and not as accurate as data maintained by CCE)

- SCOPED initiatives to support agricultural economic development include:
 - the development of the Ultra Premium Beverage center
 - testing the viability of growing chickpeas to support the US growing demand for chickpeas and to support several regional businesses importing chickpeas from other regions of the US.
 - working to attract hemp processors for textiles, nutraceuticals, topicals and pharm-applications.
 - recruited Seneca Bio-Char, a manufacturer that uses wood products in its process of manufacturing bio-char that is used as a soil amendment.
 - provided loans for several agriculture-related businesses in the past three years including craft beverage manufacturers and a mushroom farm.

Support New Farmers

The 1999 Plan included a goal to attract new farmers and expand the availability of capital to support such enterprises. Between 1999 and 2008, the dairy industry continued to consolidate.

- Consolidation of farms continued after 2008 with large farms seeking to expand, especially dairy and cash crops. Competition for land from large farms as well as Amish and Mennonite farmers makes it difficult for young and beginning farmers to purchase land to start farming. The need to support a new generation of farmers continues to be a critical need.

Key recommendations in the 2008 Update included:

- Establish an Agricultural Revolving Loan fund and a brochure that identifies funding sources for agriculture.
 - *Is there a role for Schuyler County in this or are other entities leading?*
- Solicit new farm enterprises to put vacant farmland back into production.
 - *Data show that this is happening through farmers' initiative.*
 - *Is there a County role?*
- Target Amish and Mennonite communities and encourage diversification with small sawmills and other niche enterprises.
 - *What is the best way to work with these communities?*
 - *Local governments should focus on removing barriers in to on-farm businesses*

Increase Economic Returns from Farming

The 1999 Plan included a goal to “increase the economic returns associated with farming.” Between 1999 and 2008, the average farm income increased by 107% and the average rate of return in 2002 was 2.7%. The 2008 Update recommended continuing Cooperative Extension focus on building farm management skills and the use of latest technologies. Continuing programs include technical assistance to dairies to establish cheese operations, developing agri-tourism, marketing and promotion of local products, inform farmers about research on alternative farm practices, encourage best management practices for woodlands, technical assistance through SWCD.

- CCE continues to provide education to farmers to build management skills and learn to use new technologies. Regional agricultural specialists provide technical assistance. SWCD continues to assist farmers with conservation planning and to leverage State and

Federal funding to install conservation measures. Additional resources to assist farmers are available through the Cornell Small Farms Program (<https://smallfarms.cornell.edu/>), New York Farm Net (<https://www.nyfarmnet.org/>),

Develop Marketable Niches

The 2008 Update recommended continuing Cooperative Extension focus on building farm management skills and the use of latest technologies. Continuing programs include technical assistance to dairies to establish cheese operations, developing agri-tourism, marketing and promotion of local products, inform farmers about research on alternative farm practices, encourage best management practices for woodlands, technical assistance through SWCD.

Southern Tier Region Economic Development Council – State of the Region: 2019 Progress Report

Agriculture and related industries are key regional priorities of the Southern Tier Regional Economic Development Council, which serves Broome, Chenango, Chemung, Delaware, Schuyler, Steuben, Tioga and Tompkins Counties. Agriculture and tourism are recognized as regional industry clusters. One of the key regional initiatives is to “Transform the Food and Agriculture Industry” through investment in agriculture technology, processing and distribution and strengthening links to tourism and manufacturing.

In 2019 and again in 2020, the Grow-NY food innovation and agricultural technology business challenge awarded a \$1 million prize, two \$500,000 prizes and four \$250,000 prizes to start-up companies to support innovative business plans.⁶

The REDC’s Food and Agriculture Work Group aim to develop a regional approach to cultivate and process Industrial hemp.

Southern Tier Central Regional Planning and Development Board – Comprehensive Economic Development Strategy (CEDS)

The Southern Tier Central Regional Planning and Development Board (STC), which serves Chemung, Schuyler and Steuben Counties, Its 2020-2025 Comprehensive Economic Development Strategy (CEDS) identifies “Agribusiness, Food Processing and Technology” and “Forest and Wood Products” as among the top ten regional industry clusters. STC maintains data and facilitates funding for planning and economic development projects through the Appalachian Regional Commission, New York State and other funding sources. Projects recommended for funding include regional broadband to farms initiative, extension of fiber for high-speed internet in rural areas of Schuyler County, support for business succession planning through SCOPED and expansion of the Atwater and Osmote wineries.

⁶ <https://www.grow-ny.com/>

Regional Meat Processing Study

A study of available processing capacity and other constraints to sales of animal products in the Southern Tier West region may inform this planning process. The 2015 study, “Southern Tier West: The Invigoration of Local Livestock and Processing Industries” addressed four aspects of the supply chain: Production; Transportation and Logistics; Manufacturing and Processing; and Sales and Marketing.

The authors were surprised to find that there was sufficient processing capacity in the region to accommodate local production, and that a new processing facility was not warranted. However, the study noted that seasonal bottlenecks; issues with quality, consistency, scalability and efficiency; and lack of alignment in the value chain among farmers, processors, and consumers constrained growth in producing and marketing locally produced meats. It found that farmers and processors need resources to better align existing capacity with production and markets, and to encourage coordinated growth.

The study noted that markets for products certified as organic, grass-fed, and/or consistent with animal welfare, were growing. These markets represent opportunities for Schuyler County farms.

Specific recommendations included:

- Modify farmers’ finishing schedules by providing high quality forage to overwinter the animals in order to avoid bottlenecks at processing facilities
- Offer consulting services to farmers that would teach them the skills to profitably finish animals at different times of year, to avoid the processing bottleneck.
- Bring farmers and processors together via roundtable discussions and facilitated tours. Roundtable discussions would be designed and moderated by a knowledgeable third party. Facilitated tours would allow farmers to familiarize themselves with the facilities in the area, and to get a better understanding of the processors challenges, contributing to improved working relationships.
- Provide competitive grants to processors who participate in a working group designed to inform solutions to the meat processing issues in the region. Funding could be used for facility upgrades that would improve capacity.
- Create a competitive grant program for processors to receive assistance in organic handling certification through NOFA, or Animal Welfare Approved Certification, or both.
- Establish a fund to assist processors with succession planning or business advising such as butchery training.
- Obtain equipment and other resources that can be shared among livestock farmers, including livestock trailers and hired drivers to take full loads to the processor from a group of farms, on a schedule

Resources for Education, Funding and Technical Assistance

The following programs or facilities are key resources to help farmers, landowners and agriculture-related businesses in Schuyler County.

Schuyler County Partnership for Economic Development

Schuyler County Partnership for Economic Development (SCOPEd) provides information and assistance to businesses and advances initiatives to expand economic development in Schuyler County. SCOPEd was instrumental in obtaining funding to develop the ultra premium beverage facility in the Town of Dix and in attracting its first tenant, Lucky Hare Brewing, to the site in 2019.

Schuyler County Industrial Development Agency

The Schuyler County Industrial Development Agency (IDA) offers tax incentives and other financial assistance to businesses that create jobs and increase private investment. The IDA is working to acquire Camp Monterey for a processing facility for agricultural products including hemp and vertical farming. The IDA is also focused on having broadband to every households in the County.

New York Farm Bureau

New York Farm Bureau and Schuyler County Farm Bureau provide information about local, state and federal policies and regulations that affect farmers. Farm Bureau advocates on behalf of the agricultural community. Local events serve to bring the farming community together.

<https://www.nyfb.org/about/county-farm-bureau/schuyler-county>

Cornell University – Research and Agri-business Incubator

Cornell University conducts research into farm practices, the agricultural economy and other topics at the main campus in nearby Ithaca, Tompkins County, and at the Agricultural Experiment Station in nearby Geneva, Ontario County.

The Cornell University Agriculture and Food Technology Park, a 72-acre research facility located adjacent to the NYS Agricultural Experiment Station in Geneva, Ontario County, supports the development of new technologies relating to food and agriculture. A 20,000 sq. ft. “flex technology” business incubator has 13 tenants. Pilot production areas include a new Food and beverage Innovation Center.⁷

Cornell Small Farms Program

The Cornell Small Farms Program is a clearinghouse for general farming info, education, and funding. <https://smallfarms.cornell.edu/>

Cornell Cooperative Extension - Technical Assistance and Education

Cornell Cooperative Extension (CCE) develops and distributes educational materials, conducts training and provides technical assistance to farmers. Regional agriculture teams research-based information, programs, and technical assistance to dairy, field crops, vegetable, tree fruit and grape producers across New York State. CCE also works to increase public awareness and understanding about farming, nutrition and environmental protection. Although youth programs and other community activities were

⁷ <https://cuaes.cals.cornell.edu/about/>

canceled for summer 2020, CCE staff continued to provide information and assistance to farmers and community members.

CCE Schuyler partners with neighboring counties (Chemung, Cortland, Tioga and Tompkins) to share staff with expertise in various agricultural specialties through the South Central NY Agriculture Program.⁸ Brett Chedzoy, based at Schuyler CCE, is the regional Forestry, Agroforestry & Natural Resources Specialist; Graham Savio, based in Tompkins CCE, is the Ag Economic Development & Policy Specialist; and Barb Neal, based at Tioga CCE, is the Horticulture Specialist. (See <http://cceschuyler.org/agriculture/scny-ag-team>)

The regional team maintains extensive resources on its website <http://cceschuyler.org/agriculture/scny-ag-team>) for:

- Beginning Farmers
- Farm Business Development
- Forestry & Natural Resources
- Livestock
- Marketing
- Vegetable & Fruit

New York Agriculture in the Classroom

New York Agriculture in the Classroom, a partnership of Cornell University, the NYS Department of Agriculture and Markets, the NYS Education Department, Cornell Cooperative Extension, and the New York Farm Bureau, advances understanding of how food and fiber are produced. Programs include teacher training, hands-on educational activities in schools, and virtual field trips. Agricultural Literacy Curriculum Matrix, an online curriculum for K-12 teachers that incorporates information about farming into social studies and nutrition education.

<https://www.agclassroom.org/ny/> . Agricultural Literacy Week encourages community members to read and discuss a specific children’s book that promotes understanding of agriculture.

Cornell Cooperative Extension - Harvest Schuyler

The Harvest Schuyler Initiative aims to increase sales of local farm products and build connections between farmers and buyers (i.e., restaurateurs, chefs, bed and breakfast owners.) Activities include e-newsletters (“Harvest Hotline” and social events. A website lists farms that sell products directly to consumers (<https://us13.campaign-archive.com/?u=a5a11863856c290452ebf0a54&id=f004f27158> .)

Farm Trail Weekend

In September 2020 the Cornell Cooperative Extension of Schuyler County hosted an open house at the ten largest agri-tourism farms in Schuyler County. Many of these farms reported attendance numbers exceeding 200 visitors, with Apples & Moore (Reisinger’s) reporting more than 5,000 visitors. All ten farms have agreed to participate again in 2021, with several additional farms showing interest. This event is expected to gradually grow to attract thousands of visitors from outside the local area, and foster other farm-related festivals around seasonal products such as peaches.

⁸ <http://cceschuyler.org/agriculture/scny-ag-team>

Forest Research

Most forest-based enterprise research in NYS is done at Cornell’s 4,300-acre Arnot Teaching and Research Forest in the Town of Cayuta at the southeast corner of Schuyler County. This forest is also home to the largest research sugarbush in the US. The Arnot Forest is used annually by hundreds of woodland owners, forestry professionals and maple producers to support their educational and technical support needs.

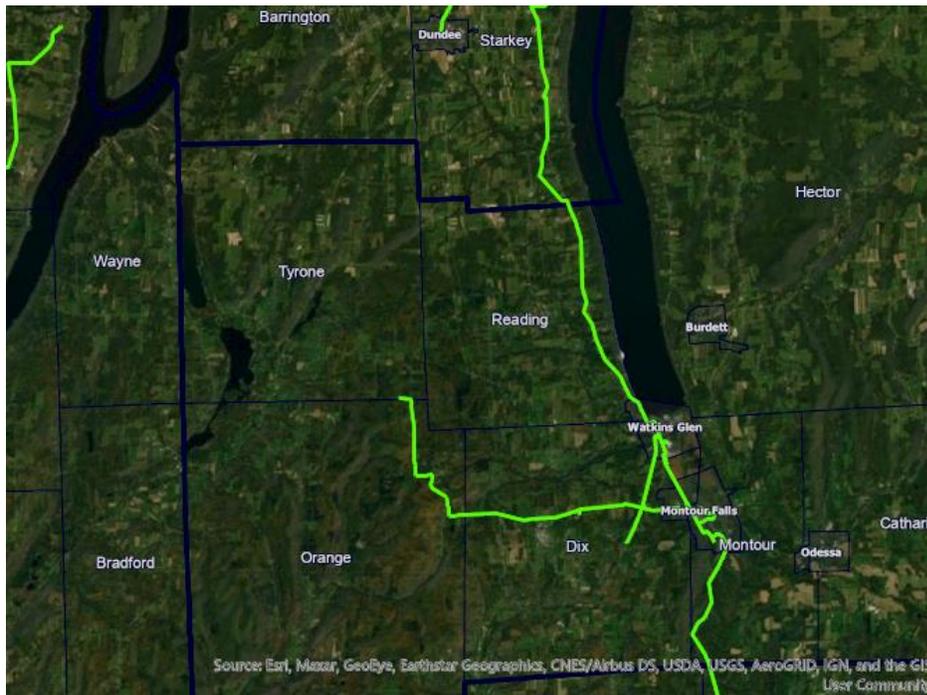
Energy Efficiency/ Renewable Energy

- NYSERDA. Cost sharing for Energy Audits through the FlexTech program. Farms that are customers of an investor-owned utility (NYSEG) and pay the System Benefits Charge are eligible.
- USDA Rural Development – Rural Energy for America Program (REAP) offers grant and loan funding for up to 75% of the cost to install renewable energy (wind, solar, geothermal, biomass, anaerobic digesters) or energy efficiency improvements (heating, ventilation and cooling, insulation, lighting, refrigeration.) REAP is authorized by the 2018 Farm Bill, which is in effect through Federal fiscal year 2023.

High Speed Internet

Southern Tier Network (STN) worked with Schuyler, Steuben, Tioga and Yates Counties on a feasibility study to identify specific needs for broadband within the four counties. The study will identify areas feasible to extend fiber network. Yates County received a \$10.3 million grant through the USDA ReConnect Program to extend high-speed internet to farms and households within a 142 square mile region. STN in partnership with Schuyler County applied for a similar USDA grant in 2020.

FIGURE 9: Southern Tier Network Broadband Service Areas



SOURCE: <https://southerntiernetwork.org/>

SUMMARY OF ISSUES AND OPPORTUNITIES

Industry Disruptions

Low commodity prices and other market disruptions, particularly with the dairy industry, have led farmers in New York State and elsewhere to end dairy operations or consolidate.

New York State has acknowledged these challenges with its Dairy Transition program, which provides funding to purchase development rights to farmland. The Barber Farm in Schuyler County received funds through this program in 2018.

Disruption has also occurred as a result of the 2020 COVID-19 pandemic, with tourism substantially reduced, meat packing plants shuttered, and restaurants and institutions no longer purchasing agricultural products. Farmers have excess product without the expected markets. The dairy industry was especially affected.⁹

The USDA established a financial relief program in April 2020 as well as a program to purchase surplus meat and other products. Some surplus was steered to regional food banks, which have also seen increasing demand as a result of the pandemic.

Schuyler County and its partners can support farms experiencing market disruptions by supporting diversification of agricultural products, facilitating on-farm businesses, promoting agri-tourism, establishing additional local processing capacity and other agricultural economic development initiatives.

The COVID-19 pandemic has increased demand for high quality, healthy foods that people can prepare at home. This may lead to opportunities for direct marketing of produce and meat products.

Direct Sales to Consumers

Because of its small population, local residents offer a limited market to farmers who offer direct sales to consumers. Residents of neighboring counties do not typically travel to Schuyler County for farm products.

The season for selling to tourists is limited to May through October; while this season coincides with fresh produce production, it leaves producers of wine, beverages, and meat at a disadvantage from November through April. Despite the challenges, these producers have maintained sales through the winter and are seeing an increase in year-round sales.

E-commerce offers increasing opportunities to expand direct-to-consumer sales.¹⁰ Many local wineries already market a significant portion of their sales through internet, despite the challenges associated with different shipping limitations among States and other regulations. Other farm products could increase marketing, capitalizing on the well-know “Finger Lakes” brand. Programs such as Finger Lakes Farm Country website helpful to connect farmers with potential buyers.

⁹ <https://www.fooddive.com/news/usda-to-purchase-470m-in-surplus-meat-dairy-and-produce/577326/> ; <https://www.fooddive.com/news/how-the-federal-19b-coronavirus-relief-fund-can-help-farmers-and-food-prod/576418/>

¹⁰ <https://research.rabobank.com/far/en/sectors/beverages/the-2020-alcohol-e-commerce-playbook.html>

The growth of Community Supported Agriculture (CSA's) supports local producers of fruits, vegetables, meat, cheese and other products.

Cross-selling among producers represents an opportunity. For example, wineries can increase sales of local cheeses, meats and vegetables.

Economic Integration of Food System Components

Farms in Schuyler County are close to many suppliers of goods and services. Large processors and distribution sites are outside Schuyler County, but accessible via the road network.

More integration would increase the economic impact of agriculture and related businesses, especially for small-scale producers. For example, there are few local options for livestock producers to have animals slaughtered for meat.

Glen Co-Pack

Glen Co-Pack, operated by Steuben Schuyler ARC, provides custom food manufacturing solutions for artisan food entrepreneurs and start-up companies to help bring their products to market. Located in Watkins Glen, the 5,000-square foot facility is operated by Arc of Schuyler and provides job training and employment to persons with physical and intellectual disabilities.

Glen Co-Pack specializes in bottling acidified and low-acidified foods such as sauces, jams, oils, dressings and condiments, as well as dry fill packaging of seasoning blends, dry rubs and powder products such as pre-packaged cake mixes. The facility provides professional guidance in food safety and labeling to help entrepreneurs meet state and federal requirements.

Insufficient Meat Processing Facilities

Limitations in available processing facilities constrain growth of market for meat for sale directly to consumers ("freezer trade") and for use in restaurants ("farm to table.") Challenges to increasing processing capacity include difficulty obtaining labor and complicated and burdensome regulations.

Increasing Food Insecurity

Farmers may expand their involvement in addressing increasing food insecurity. In response to the COVID-19 pandemic of 2020, the NYS Department of Agriculture & Markets established the Nourish New York program to match farmers with excess food to food banks.

<https://agriculture.ny.gov/NourishNY> Not-for-profit organizations may organize "gleaning" efforts to collect produce remaining in fields after harvesting is completed.

Nearby Research Facilities and Incubators

Schuyler County's proximity to Cornell University in Ithaca, Tompkins County and the New York State Agricultural Experiment Station in Geneva, Ontario County present opportunities for farmers to incorporate innovative practices and for new businesses incorporate innovative technologies and processes.

Maintain Infrastructure Needed in Farm Operations

A well-maintained road network supports deliveries of supplies and grain, the delivery of milk, grain and other farm products to processing or distribution sites, and the transport of manure to farm fields. The State highways connect Schuyler County to locations throughout New York and the Northeast. Maintaining a robust road network is critical for the support of farm operations.

High speed internet and cell phone service are lacking in some areas. These utilities are vital to a modern and efficient farm operation.

Burdensome Regulations

State regulations make farmer difficult and increase the “cost of doing business.” Labor, environmental and other regulations make it more difficult for local farms to compete with operations in other states, such as Pennsylvania.

Seasonal weight limits on local roads constrain timber harvesting. Because of these limits, it is nearly impossible to harvest timber in winter and early spring unless the landing is on a main highway. The weight limit on CR 23 between Tyrone and Watkins Glen constrains the timber industry.

Food Scraps Recycling

A recent New York State law requires certain institutions, such as schools, colleges, prisons, and hotels, to separate and recycle, compost or otherwise dispose of organic waste. This requirement may lead to opportunities for farmers to be paid to use waste from institutions to enhance soils. Farms may become a “designated food scraps recycler” in order to utilize food scraps for animal feed, land application, composting, aerobic digestion or anaerobic digestion.

The recently enacted New York State Food Donation and Food Scraps Recycling regulations¹¹, which become effective on January 1, 2022, require any facility that generates an annual average of two tons per week of food scraps to separate and recycle food scraps, provided that a suitable recycling facility is located within 25 miles of the food scrap generator. Farmers may be able to provide cost effective options for food scrap generators, including restaurants, hotels, schools and other entities, who are subject to these new regulations.

Crop Diversification

Schuyler County farmers have explored crops that are new to New York, such as hemp, hops and chickpeas. Economic development initiatives include the expansion of processing of hemp and chickpeas. The requirement that licensed “Farm Breweries” in New York include locally produced hops and barley has presented new opportunities for farmers.

¹¹ <https://www.nysenate.gov/legislation/laws/ENV/A27T22>



Photo 12: Stone fence (Credit: Jack Wilbert)

G. NATURAL RESOURCES & WATER QUALITY

Agriculture both relies on and affects natural resources and water quality in Schuyler County. Minimizing runoff of sediment, nutrients and other contaminants from agricultural land is essential for protecting the water quality of Seneca Lake, a public drinking water supply, and other water bodies.

Seneca Lake is a vital natural resource that supports tourism, recreation, industry and residential neighborhoods. Lamoka Lake, Waneta Lake and Cayuta Lake, support fishing, and boating and seasonal residences. Numerous waterfalls and gorges attract tourists and contribute to Schuyler County's unique character and high quality of life. The ravine and waterfalls along Glen Creek, which flows through Watkins Glen State Park, are the best known; others include Hector Falls, Aunt Sarah's Falls and Shequaga Falls in the village of Montour Falls, Eagle Cliff Falls in Havana Glen Park, and the falls of Excelsior Glen along the Finger Lakes Trail.



Photo 17: Farm Field Overlooking Seneca Lake (Credit: Watkins Glen Area Chamber of Commerce)

SENECA LAKE WATERSHED

With over 66 square miles of surface area, Seneca Lake is the largest of the eleven Finger Lakes. Its watershed comprises approximately 707 acres across portions of five counties.

The following streams and their watersheds drain into Seneca Lake:

- Big Stream
- Breakneck Creek
- Glen Creek
- Catharine Creek
- Hector Falls Creek
- Glen Eldridge
- Rock Stream
- Seneca Lake Inlet.

Land within the Seneca Lake watershed includes all of the Town of Montour, nearly all of the Towns of Reading and Dix, about one-half of Hector and Catharine, and small portions of the Towns of Orange and Tyrone.

OTHER WATERSHEDS

Hencoop Creek and Taughannock Creek drain toward the northeast into Cayuga Lake.

Cayuta Creek flows southward toward the Susquehanna River. Tobehanna Creek and Meads Creek flow toward the Chemung River. Both of these sub-watersheds are part of the Chesapeake Bay watershed, which is subject to more stringent water quality regulations than other watersheds in Schuyler County.

WOODLANDS & WETLANDS

Many farm parcels in Schuyler County include wooded lands or wetlands. In addition to supporting the production of timber and other forest products, woodlands on farms can provide significant ecological and hydrological benefits, buffer streams and prevent soil erosion on slopes.

Other farm parcels abut protected lands in the National or State Forest. Agriculture can be a suitable buffer to these protected forests by limiting residential development.

RELEVANT PLANS, STUDIES AND PROGRAMS

Seneca Lake Watershed Management Plan

The Seneca Lake Watershed Management Plan was prepared between 2011 and 2014 under the direction of the Genesee-Finger Lakes Regional Planning Council, Finger Lakes Institute, and the Southern Tier Central Regional Planning Board. The planning process included the following components:

- Community Outreach and Education Plan (2011) (see http://www.stcplanning.org/usr/Program_Areas/Water_Resources/Seneca_Lake_Plan/Community%20Outreach%20%20Education%20Plan_Final.pdf)
- Seneca Lake Watershed Characterization and Subwatershed Evaluation (2012) (see http://www.stcplanning.org/usr/Program_Areas/Water_Resources/Seneca_Lake_Plan/Characterization_Compiled_FULL_Version_asof09192013_CR.pdf)
- Assessment of Local Laws, Programs, and Practices Affecting Water Quality (2014) (see http://www.stcplanning.org/usr/Program_Areas/Water_Resources/Seneca_Lake_Plan/Seneca%20Lake%20Watershed%20ASSESSMENT%20OF%20LOCAL%20LAWS,%20PROGRAMS,%20AND%20PRACTICES%20REPORT_rev.pdf)
- Identification and Description of Management Practices, Approaches and Strategies for Watershed Protection and Restoration & Implementation Strategy and Schedule

The initial research, documented in the Watershed Characterization and Subwatershed Evaluation, described the geology, ecology and water quality characteristics and identified potential sources of water pollution. The Assessment of Local Laws noted whether municipalities within the watershed had adopted zoning, site plan review, stormwater management and other regulations.

The Plan recommended management practices and strategies to protect and restore the Seneca Lake watershed. A matrix summarizing the Plan's recommendations set priorities and identified the entity responsible, timeframe for implementation and potential funding sources.

Several High Priority actions recommended in the Watershed Management Plan relate to agricultural practices. Farmers and agencies in Schuyler County have advanced these recommendations as follows:

- 1) **Create and maintain riparian buffer zones for all streams adjacent to agricultural land starting with the critical areas. (Among Top 5 Overall Priority)**

The Schuyler County SWCD encourages farmers to install conservation buffers through farm planning as part of the Agricultural Environmental Management (AEM) program. Cost sharing and technical assistance are available through the AEM program. In addition, financial

incentives are available from New York State and USDA conservation programs such as Conservation Reserve Program, Environmental Quality Incentives Program.

Three of the High Priority Recommended Actions in the Watershed Management Plan address the management of manure and other nutrients: Encouraging farms to develop Comprehensive Nutrient Management Plans, consider technologies that reduce the mass of animal waste materials, such as on-farm anaerobic digesters; and documenting successful practices in trade journals.

2) Encourage all farms in the Seneca Lake watershed to develop a Comprehensive Nutrient Management Plan (CNMP) (Among Top 5 Overall Priority)

New York State law requires a Comprehensive Nutrient Management Plans (CNMP) for Concentrated Animal Feeding Operations (CAFOs) for dairy farms with 300 or more cows and other livestock operations that meet certain thresholds. The CNMP specifies the best management practices that will be maintained on the farm to reduce runoff of nutrients from animal waste, such as covered or enclosed waste storage facilities, composting and the use of vegetated areas for the treatment of wastewater and runoff.

CNMPs for CAFOs must be prepared by a licensed engineer. For smaller farm operations, the SWCD assists with preparing nutrient management plans as part of the AEM program. The NYS Department of Agriculture & Markets provides information and sources of technical assistance for farmers to implement these best management practices.

(<https://agriculture.ny.gov/soil-and-water/comprehensive-nutrient-management-planning> .)

3) Consider the feasibility of technologies that reduce the mass of animal waste material to be handled, particularly collaborative anaerobic digesters.

The use of anaerobic digesters requires a large capital investment (\$400,000 to \$5 million depending on the size) ¹²as well as a sufficient and reliable supply of manure and other materials to be cost effective. Collaboration among farmers and potentially food waste producers would be needed to ensure a sufficient supply of materials. Because of the high cost to construct and operate anaerobic digesters, they may not be a viable option for dairy farms without significant government subsidies. In 2018, NYSERDA announced the availability of \$19 million to accelerate the use of anaerobic digesters on farms as well as at wastewater treatment plants and to treat food wastes. With recent legislation that limits the amount of organic waste generated at institutions that can be disposed of in landfills, there may be opportunities for collaborative projects among farms and generators of organic waste.

4) Document and disseminate successful strategies for nutrient management, manure handling, and erosion control.

Cornell University's Nutrient Management Spear Program collaborated with farms to document the effectiveness of best management practices. See <http://nmsp.cals.cornell.edu/>)

5) Promote the preservation of high quality and unique agricultural areas by guiding nonagricultural development into other areas of the watershed.

¹² <https://thecounter.org/misbegotten-promise-anaerobic-digesters-cafo/>

The preservation of high quality farmland continues to be a priority of Schuyler County.

Watershed Implementation Plan – New York Chemung and Susquehanna River Basins

Land within the Chesapeake Bay watershed are subject to Total Maximum Daily Load (TMDL) limits to address water quality problems caused by excessive nutrients and sediment. In July 2018, the U.S. Environmental Protection Agency (EPA) assigned pollution reduction targets for nitrogen, phosphorus and sediment to each jurisdiction within the watershed. Targets are expected to be met by 2025.

The NYS Department of Environmental Conservation (NYS DEC) prepared a Watershed Implementation Plan for communities within the Chemung and Susquehanna Watersheds that identifies load reduction targets for each sector.¹³ Recommended best practices include conservation tillage, cover crops, forest and grass buffers, manure and nutrient management, and runoff controls. Funding to install these practices are available from numerous sources and will be coordinated through the Agricultural Environmental Management (AEM) Program.

Soil and Water Conservation District – Technical Assistance and Cost Sharing

The Schuyler County Soil & Water Conservation District (SWCD) works with farmers to implement conservation improvements valued at several million dollars per year. To receive assistance, farmers must participate in the Agricultural Environmental Management (AEM) program. In addition to technical assistance and cost sharing, the SWCD implements certain conservation projects using its own staff and equipment.

Agricultural Environmental Management Program

The Agricultural Environmental Management (AEM) is a voluntary program to help farmers plan and implement best management practices to conserve soil and water resources while meeting their business objectives. Specialists work with farmers through a 5-tier 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 & 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

Funding is available on a watershed basis. Recommendations are customized for each farm. Participation is voluntary and farm assessments are confidential. For more information, see <http://www.schuylerswcd.com/aem.html>.

State Programs

Agricultural Nonpoint Source Abatement and Control Program (AgNPS)

This NYS Department of Agriculture and Markets competitive program provides funding through local Soil & Water Conservation Districts for technical and financial assistance to help farmers

¹³ https://www.dec.ny.gov/docs/water_pdf/wipiinyfinal.pdf

implement best management practices. Projects incorporating riparian buffers receive priority scoring. (See <https://agriculture.ny.gov/soil-and-water/agricultural-non-point-source-abatement-and-control>)

NYS Source Water Buffer Program

Funds are available to SWCDs to acquire easements to maintain vegetated or forest buffers to protect drinking water quality.

- 75% of purchase price to acquire permanent conservation easement or 50-year term conservation easement
- Land must be owned or leased by an eligible farm operation which has completed Tier 1 and Tier 2 AEM evaluation.
- Lands to be protected must be:
 - Directly adjacent to surface waters designated as a drinking water source,
 - Directly adjacent to tributaries that drain to designated drinking water source,
 - Wetland areas directly adjacent to surface waters designated as a drinking water source
- Applications accepted on a rolling basis until funds are exhausted

(See <https://agriculture.ny.gov/soil-and-water/source-water-buffer-program>)

Federal Programs

Conservation Reserve Enhancement Program (CREP)

Agricultural landowners are eligible to receive financial incentives from U.S. Department of Agriculture's (USDA) Farm Service Agency (FSA) to remove streamside farmland from production and plant forest or grass buffers. (See https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdfiles/FactSheets/2016/crep_new_york_12_watersheds.pdf)

Debt for Nature (DFN) Program

Farmers with loans from the USDA-FSA may qualify for loan cancellation in exchange for implementing conservation practices such as riparian buffers.

<https://ask.usda.gov/s/article/What-is-the-Conservation-Contract-Program>

Environmental Quality Improvement Program (EQIP)

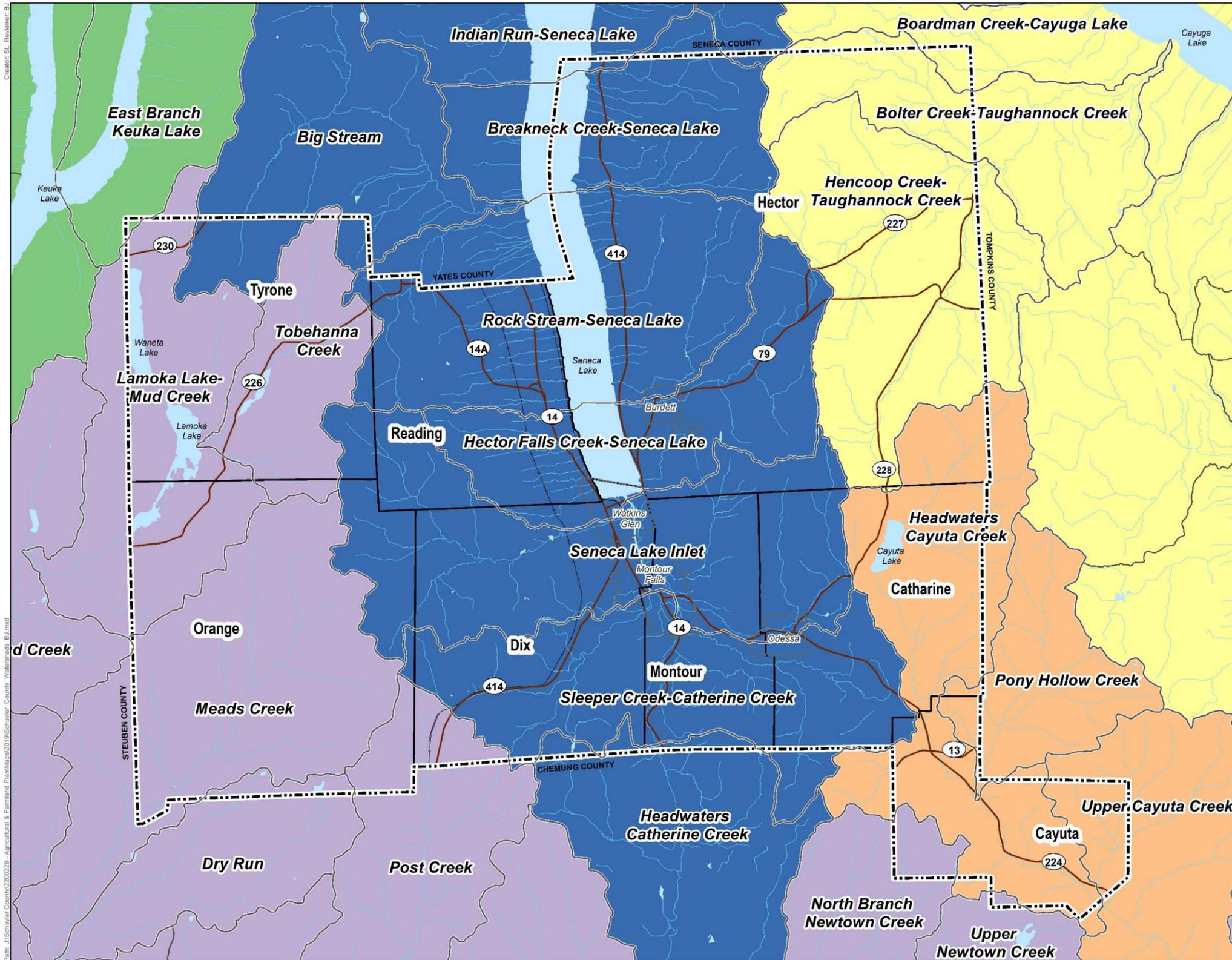
USDA's Natural Resources Conservation Service program providing financial and technical assistance to farmers to implement conservation practices, including riparian buffers, on farmland and non-industrial (not used for wood products) private forestland. (See

<https://www.nrcs.usda.gov/wps/portal/nrcs/main/ny/programs/financial/eqip/>)

SUMMARY OF ISSUES AND OPPORTUNITIES

Runoff from agricultural land is carried by streams and tributaries into Seneca Lake and other waterbodies. Conservation practices on farms help to minimize the amount of soil, nutrients and other contaminants.

MAP 8: Watersheds



SCHUYLER COUNTY
 AGRICULTURAL & FARMLAND
 PROTECTION PLAN



MAP 8
WATERSHEDS

Watersheds

- Sub-Watersheds (12 digit)
- Seneca Lake
- Keuka Lake
- Cayuga Lake
- Susquehanna River
- Chemung River

- County Boundary
- Village Boundary
- Town Boundary
- Major Roads
- Lakes
- Streams
- Rail Road



LaBella Project No: 2200229
 OCTOBER 2020

- Sources:
1. Municipal boundaries: NYS Office of Information Technology Services GIS Program Office (GPO)
 2. Hydrography and Streams: New York State Office of Cyber Security (OCS)
 3. Roads: NYSDOT Highway Data Services
 4. Basemap: ESRI
 5. Rail Road: Federal Railroad Administration (FRA)
 6. 12-Digit Watershed HUC: USDA NRCS Geospatial Data Gateway



This page is intentionally blank.

H. CLIMATE CHANGE RESILIENCY AND ADAPTATION

Climate change describes a change in average weather conditions, such as temperature or rainfall, over a long period of time. In contrast, “weather” describes conditions at a certain place and time.

Scientists have observed increased global average temperatures over the past 100 years of approximately 2 degrees Fahrenheit. Although Schuyler County will not be directly affected by rising sea levels, increased global temperatures are expected to cause:

- higher temperatures and more frequent heat-waves;
- an increase in intensity and frequency of heavy rainfall events; and
- an increase in the severity and longevity of drought events,

CLIMATE CHANGE IMPACTS ON CROPS

Across New York State, the growing season has already increased by an average of 8 days, meaning that the number of summer heat stress days (days over 90° F) is expected to substantially increase. Increased average temperatures also means winters will grow milder (Cornell Cooperative Extension 2014). These changes can present both unique challenges and opportunities for farmers.

Heat Stress Challenges:

- Increased temperatures during critical periods of growth can lead to significant reductions in many grain, vegetable, and field crop yields
- Warmer nighttime temperatures increase carbon loss, leading to negative impacts on carbohydrate accumulation, and therefore, yields
- Cool season-adapted crops, such as apples, may experience sunscald damage
- Warmer winter and early spring temperatures can accelerate leaf and bud development too soon, leading to an increased vulnerability to frost damage

Unique Opportunities and Solutions:

- A longer growing season will allow for experimentation with new crops such as peaches, melons, tomatoes, and more. All favor a warmer climate.
- Some heat stress can be avoided by shifting planting dates

CLIMATE CHANGE IMPACTS ON LIVESTOCK

Increasing temperatures are expected to negatively impact dairy production due to increased likelihood of heat stress. Dairy farmers can address these impacts by:

- Making sure to provide adequate water at all hours of the day, preferably in their loafing area in the shade
- Allowing for enough space so overcrowding does not occur
- Adjusting rations to include higher quality forages, rather than increasing grain

PRECIPITATION IMPACTS

Intense precipitation events (heavy downpours) are likely to increase in intensity and frequency, with some projections saying these events will be 50-100% more frequent as climate change continues to impact NY (National Weather Service).

Periods of drought are also expected to increase in frequency and severity as a result of climate change. Potential impacts on agriculture include insufficient water supply for animals and crop losses. Drought conditions are exacerbated by heat waves, as higher temperatures speed up evaporation faster than the precipitation can replenish it.

INCREASED RISK OF PESTS AND DISEASE

Warmer winter temperatures and alterations to ecological systems increases the risk of “invasive alien species” (IAS) that can affect crop production. For example, the brown marmorated stink bug (Halyomorpha halys) has caused significant damage in NYS. The stink bug, native to Eastern Asia, was first detected in Pennsylvania in 2001 (Cornell Cooperative Extension 2020). It has since spread to much of the United States. Not only are they a household pest, but they also cause damage in agriculture. Crops such as soy, corn, apples, pears, and peaches are eaten by the stink bug (EPA 2020). In field crops, damage caused by the stink bug is not usually evident upon visual inspection (i.e. in corn, they feed inside the husk by draining the kernels), thus it can be difficult to spot an infestation.



Figure 9: *Brown marmorated stink bug* (Penn State University, <https://extension.psu.edu/brown-marmorated-stink-bug>)

The emerald ash borer beetle has damaged many ash trees throughout New York State since it was introduced in 2009. The pest and other invasive species threaten forests in Schuyler County.

The management of IAS can be challenging. Some IAS are resistant to pesticides typically used on field crops and some IAS, like the brown marmorated stink bug, are mobile, meaning that if a resident population is killed, a new population can easily fly in to replace it (EPA 2020). Pest control can turn into a dangerous cycle that exacerbates even more issues. For example, if harsher pesticides are used on pests, these control methods may unintentionally kill essential insects, such as pollinators. Additionally, some pests can build up a resistance to pesticides, meaning harsher and harsher chemicals must be used to eliminate populations.

RELEVANT PLANS, STUDIES AND PROGRAMS

Cornell Climate Smart Farming Program

The Cornell Climate Smart Farming Program compiles science-based research and works with stakeholders to help farmers:

- Identify on-farm vulnerabilities to extreme weather and variability; inventory energy use and greenhouse gas (GHG) emissions on the farm; set goals and plan for adaptation and mitigation changes
- Increase on-farm adaptation through BMPs, including cropping systems, IPM, land-use planning, and water resource management
- Upgrade infrastructure such as cooling, irrigation, drainage, and waste management systems for increased resiliency
- Increase farm energy efficiency and installing renewable energy systems on the farm, which can contribute to cost savings
- Adopt BMPs to reduce GHG emissions and sequester carbon through Cornell-recommended practices (e.g. soil health, cover crops, low-till practices)
- Improve on-farm recycling, solid waste disposal, nutrient management practices
- Utilize new climate-smart agricultural decision support tools with Cornell University
- Support local food and climate-smart initiatives in the surrounding community
- Inform and inspire other farmers to be leaders and innovators through peer-to-peer information exchange and recognition

The Climate Smart Farming website includes tools to help farmers manage climate risk, including calculator tools to predict changes in growing degree days, water deficits and drought risk. A team of specialists is available to advise farmers. See: <http://climatesmartfarming.org/>

Climate Resilient Farming Program

Grant funds are awarded to Soil & Water Conservation Districts on a competitive basis to assist farmers with implementing best management practices in three categories: agricultural waste storage cover and flare for methane reduction, on-farm water management, and soil health systems. (See <https://agriculture.ny.gov/soil-and-water/climate-resilient-farming>)

I. INSTITUTIONAL AND PUBLIC SUPPORT

OVERVIEW OF EXISTING RESOURCES AND NEEDS

Farmers in Schuyler County have access to technical assistance, funding and extension (knowledge transfer) of research that would benefit farmers from organizations and institutions such as Cornell Cooperative Extension, Schuyler County Soil & Water Conservation District and Cornell University.

Most County residents and local government officials and residents have no direct experience in farming or agriculture-related businesses. Continual efforts to raise awareness and educate officials are needed to communicate the significance of agriculture to the regional economy and to the character of the community.

RELEVANT PLANS, STUDIES AND PROGRAMS

Schuyler County Agricultural & Farmland Protection Plan – 1999 and 2008 Update

Integrate Agriculture into Regional Economic Development Initiatives

The 1999 Plan encouraged local governments, Schuyler County economic development agencies and regional organizations to support agriculture and the agricultural economy. One goal was to, “Integrate agricultural development into town and County economic strategies and land use plans.”

Regional economic development strategies do emphasize the importance of agriculture and related businesses to the regional economy. The Southern Tier Central Comprehensive Economic Development Strategy 2016-2021 recognizes agriculture and forestry as key economic sectors and supports marketing initiatives to support small and medium producers. It notes that, “Forestry-based carbon sequestration is a market with significant growth potential in this region.”

The 1999 Plan included a goal to protect farmers from “regulatory intrusions.” Between 1999 and 2008, most Towns adopted Right-to-Farm laws. Continuing communication with local governments to update land use regulations to accommodate and protect agriculture.

Public Education and Awareness

The 1999 Plan included a goal to, “Increase public recognition of the value of agriculture and farmland and develop a better understanding of farm issues by non-farmers.” Between 1999 and 2008, public recognition of agricultural appeared to increase. Recommendations in the 2008 Update included continuing events for high school students and others, continue efforts to support Ag in the Classroom, outreach to local governments to increase participation of farmers in local government and training for local officials on agricultural planning issues.

Key recommendations in the 2008 Update included:

- Prepare an Agricultural Planning Guide to educate local government officials on planning issues.

Cornell Cooperative Extension

Cornell Cooperative Extension of Schuyler County works with New York State Department of Agriculture & Markets, New York Farm Bureau and the NYS Education Department to promote understanding of agriculture. Resources are available at the New York Agriculture in the Classroom website: <https://www.agclassroom.org/ny/> .

NYS Agricultural District Program

The NYS Agricultural District Program continues to be an effective tool to protect farmers from unreasonable land use regulations. Continuing education and communication with local government decision-makers is needed.

SUMMARY OF ISSUES AND OPPORTUNITIES

There continues to be a need to increase recognition of agriculture’s contributions to Schuyler County’s economy and community character. As local government decision—makers turn over frequently and most do not have direct experience with agriculture, on-going communication and continuing education is necessary. Several counties organize an annual farm tour and invite local officials to see first-hand how farms operate and to better understand their challenges and impact.



Photo 18: Fruit production workshop (Credit: Schuyler Cornell Cooperative Extension)

J. STRATEGIES AND RECOMMENDED ACTIONS

PRIORITIES FOR STRATEGIC IMPLEMENTATION

Schuyler County is focused on the growth and protection of agriculture and forestry within the county by fostering agriculture business development in Schuyler County and retaining and establishing a net gain of farms and farm jobs, enhancing agriculture production and related processing entities, improving the quality and quantity of agritourism/agroforestry opportunities, securing economic development funds and incentive packages for farm-based projects, and increasing community-based support for agriculture through local marketing and farm-to-table and farm-to-consumer connections.

The following priorities have been established as a guide for Schuyler County's Legislature and Agriculture and Farmland Protection Program to aid in the implementation of the strategies and recommendations as outline in this section of the plan

Priority #1: Advocate for the protection of viable and productive farmland for long-term agricultural and forestry use; through the promotion of land use laws and incentives that direct intensive development, including large-scale solar, away from the priority agricultural areas and that include provisions to limit impacts of new development on existing farmland.

Priority #2: Promote the Agriculture Assessment Program and the connection of farmland owners and farmers to ensure that viable farmland stays in production.

Priority #3: Support farmers and existing farm businesses throughout the county to create innovative high quality, products and maintain/develop the essential infrastructure needed to ensure the long-term viability of the county's agricultural economy.

Priority #4: Attract and develop new agriculture-support enterprises that leverage existing assets and support the development of value-added manufacturing, tech & professional services, suppliers, complimentary economic development efforts, and the storage, distribution, and processing of agri-based products and services.

STRATEGY 1: EXPAND AND PROMOTE OPPORTUNITIES FOR DIRECT SALES AND AGRITOURISM

Recommended Actions

- Capitalize on Finger Lakes name recognition to market farm products to in-person visitors as well as through on-line sales.
- Cross-market wineries and beverage trails with other farm products and agritourism activities.
- Expand opportunities for farmers to sell directly to restaurants, institutions, retail stores and households.
- Expand and enhance the wine, cheese, and other beverage trails.
- Expand markets for local farm products among consumers outside of Schuyler County.
- Encourage municipalities to remove and/or avoid regulations that limit tourism-related businesses on farms and agritourism operations.

Partner Roles and Resources

Watkins Glen Area Chamber of Commerce

- List farm destinations on website and in annual Travel Guide - <https://www.watkinsglenchamber.com/>
- Network with other tourism-related businesses to support cross-promotions
- Funded in part by the NYS Tourism Promotion program
- Distribute grants to support tourism enhancement initiatives

Wine, Cheese and other Beverage Trails and Industry Associations

- Winery, brewery and distillery listings - <https://senecalakewine.com/>
- Cheese Trail - <https://www.flxcheese.com/>
- Coordinated tourism promotions

Cornell Cooperative Extension

- **Harvest Schuyler** initiative - <http://cceschuyler.org/agriculture/harvest-schuyler>
- **Buy Local Food** program: <https://buylocalfoodny.org/>
- New York State Department of Agriculture & Markets
- **New York Grown & Certified** Program: Marketing support and use of New York State Grown & Certified logo. Requires participation in Agricultural Environmental Management (AEM) and Good Agricultural Practices (GAP) certification <https://certified.ny.gov/producers>
- **Taste New York:** Promotes regional initiatives; provides resources for producers and agri-tourism businesses; online shop - <https://taste.ny.gov/>

Empire State Development (ESD) – Market New York Tourism Grant Program

- Grant funding for Regional Tourism Marketing or Tourism Capital - Eligible entities include municipalities, not-for-profit corporations, tourism promotion agencies,

public benefit corporations and for-profit companies <https://esd.ny.gov/market-new-york-tourism-grant-program>

Department of Agriculture & Markets

Municipalities

- Maintain land use regulations that accommodate agriculture and agriculture-related tourism

Businesses and Institutions

- Purchase agricultural products produced in Schuyler County
- Cross-promote Schuyler County businesses and agricultural operations

Local Harvest

- Map with links to farms, Community Supported Agriculture (CSA), and Farmers Markets. <https://www.localharvest.org>

STRATEGY 2: INCREASE ECONOMIC INTEGRATION OF AGRICULTURE, FORESTRY AND RELATED INDUSTRIES

Recommended Actions

- Maintain and enhance the Advanced Beverage industrial park facility.
- Support crop diversification to develop innovative high quality, value-added products.
- Develop local storage, distribution and processing facilities accessible to farms within Schuyler County.
- Develop small-scale or cooperative processing, distribution and/or storage facilities for niche crops such as hops or small grain.
- Encourage municipalities to remove and/or avoid overly restrictive regulations on agriculture-related processing, storage and distribution.

Partner Roles and Resources

Schuyler County IDA/ SCOPED

- Work with existing and new agriculture-related businesses to find, develop or improve facilities within Schuyler County
- Provide financial incentives to agriculture-related businesses
- <https://flxgateway.com/>

Municipalities

- Maintain land use regulations that accommodate value-added production on farms as well as small-scale production, distribution and storage facilities in appropriate locations.

New York State

- Grant funding and technical assistance for new and expanded facilities for agriculture-related manufacturing and other businesses.
- Opportunities relating to industrial hemp (<https://agriculture.ny.gov/industrial-hemp>),

STRATEGY 3: SUPPORT YOUNG, NEW AND BEGINNING FARMERS

Recommended Actions

- Connect new and beginning farmers to landowners with farmland to sell.
- Educate youth and adults about farming as an occupation.
- Establish an “Ag in the Classroom” curriculum utilizing an Ag Educator who can be shared by the three school districts within Schuyler County.
- Provide technical assistance to new and beginning farmers, including help with business planning, compliance with government regulations, marketing, and farm practices.

Partner Roles and Resources

National Young Farmers Coalition

- Information and networking - <https://www.youngfarmers.org>

New York Agriculture in the Classroom

- Agricultural Literacy Curriculum Matrix- <https://ny.agclassroom.org/>
- Grants - <https://ny.agclassroom.org/grants/>

Cornell Cooperative Extension

- Finger Lakes Land Link: Searchable database of land and land seeker listings - <http://www.fingerlakeslandlink.org/>
- Cornell Small Farms Program – Educational materials and other resources - <https://smallfarms.cornell.edu/>

Groundswell Center for Local Food & Farming

- Technical assistance, educational materials and other resources, networking, Incubator Farm - <https://groundswellcenter.org/>

American Farmland Trust

- Farmland for a New Generation website links farmers with available land and offers educational resources - <https://nyfarmlandfinder.org/>

Farm Credit East

- GenerationNext program offers education in management and business skills - <https://www.farmcrediteast.com/generationnext>
- FarmStart offers seed capital loans to promising startup farmers as well as resources to assist with business planning and financial management software designed for agriculture. - <https://www.farmcrediteast.com/products-and-services/new-farmer-programs/FarmStart>
- Young, Beginning, Small & Veteran Farmer Incentive Program – discounts on financial and management services - <https://www.farmcrediteast.com/products-and-services/new-farmer-programs/young-beginning-small>

STRATEGY 4: RETAIN HIGHLY PRODUCTIVE FARMLAND FOR AGRICULTURAL PRODUCTION

Recommended Actions

- Protect highly productive farmland with permanent conservation easements.
- Adopt and maintain land use laws that direct intensive development, including large-scale solar, away from the highest priority agricultural areas and that include provisions to limit impacts of new development on existing farmland.
- Encourage farmland owners to enroll land in the Agricultural Use Assessment program

Partner Roles and Resources

Finger Lakes Land Trust

- Advises farmers and farmland owners about conservation options, including donation of conservation easements and NYS-funded Purchase of Development Rights (PDR) programs.

NYS Department of Agriculture & Markets

- Farmland Protection Implementation Grants Program, including grants for
 - Farm Operations in Transition” <https://agriculture.ny.gov/land-and-water/rfa-0224-farmland-protection-implementation-grants-round-17b-farm-operations>
 - Transaction costs for donated easements - <https://agriculture.ny.gov/rfa-0175-farmland-protection-implementation-grants-round-15b-transaction-costs-donated-agricultural>

Schuyler County IDA

- Provide financial incentives to business that preserve highly productive farmland.
- <https://flxgateway.com/>

STRATEGY 5: PROTECT WATER QUALITY AND NATURAL RESOURCES

Recommended Actions

- Encourage farmers to participate in Agricultural Environmental Management planning and to implement best management practices.
- Protect buffers along tributaries to Seneca Lake with permanent or long-term conservation easements.

Partner Roles and Resources

Soil & Water Conservation District

- **Agricultural Environmental Management (AEM) program** - <http://www.schuylerswcd.com/aem.html>
- **Agricultural Non-Point Source Pollution Abatement and Control** – State grant funds allocated to SWCDs on a competitive basis based on projected water quality benefits.
- **Climate Resilient Farming:** <https://agriculture.ny.gov/soil-and-water/rfp-0212-climate-resilient-farming-round-5>

New York State Department of Agriculture & Markets

- **Source Water Buffer Program.** <https://agriculture.ny.gov/soil-and-water/rfa-0181-source-water-buffer-program>

STRATEGY 6: DEVELOP PARTNERSHIPS AMONG FARMERS, MUNICIPALITIES, BUSINESSES AND INSTITUTIONS TO RECYCLE FOOD SCRAPS AND OTHER ORGANIC WASTE.

Recommended Actions

- Identify food waste generators and farms that may be able to use the food waste in their operations.
- Obtain grant funding for implementation of programs to reuse or process food waste on farms.

Partners and Resources

NYS Department of Environmental Conservation

- **Food Donation and Food Scraps Recycling Law** mandates recycling, potential creating opportunities for farms to establish composting programs <https://www.dec.ny.gov/chemical/114499.html>

New York State Pollution Prevention Institute (P2I)

- **Consultation and Resources for industries** – assists businesses and institutions with managing food waster.
- **Organic Resource Locator** – map that identifies producers of organic waste and those who have a use for them. Includes Concentrated Animal Feeding Operations (CAFOs) that generate large quantities of manure. (Map offline in November 2020) <https://www.rit.edu/affiliate/nysp2i/organic-resource-locator>

STRATEGY 7: INCREASE UNDERSTANDING AND APPRECIATION OF AGRICULTURE AMONG LOCAL DECISION-MAKERS AND THE PUBLIC.

Recommended Actions

- Organize periodic educational events, such as an annual farm tour, for local officials and the public that celebrate agriculture in the County and inform local officials and the public about the successes and challenges of farms in the County.
- Advocate for State legislation and funding to advance the priorities of this Plan
- Educate Code Enforcement Officers and Animal Control officers about Agricultural District law protections for agricultural operations.

Partners and Resources

Farm Bureau

- Advocacy, resources and networking <https://www.nyfb.org/>

Cornell Cooperative Extension

- Educational programs for youth (4H), adults and educators; Nutrition education; Gardening;
- Farm Credit East – Ag Enhancement Grants - <https://www.farmcrediteast.com/industry-support/AgEnhancement-grants>



Photo 13: Plant sale, 2020 (Credit: Schuyler County Planning Dept.)

IMPLEMENTATION MATRIX

	SCHUYLER AFPB	SCHUYLER CCE	SCHUYLER SOIL & WATER CONSERVATION DISTRICT	SCOPED	CHAMBER OF COMMERCE	FARM BUREAU	WINE, CHEESE, BEVERAGE TRAILS & INDUSTRY ASSOCIATIONS	LOCAL MUNICIPALITIES	STATE AGENCIES
STRATEGY 1: EXPAND AND PROMOTE OPPORTUNITIES FOR DIRECT SALES AND AGRITOURISM/ AGROFORESTRY.									
Capitalize on Finger Lakes name recognition to market farm products to in-person visitors as well as through on-line sales.		X		X	X		X	X	
Cross-market wineries and beverage trails with other farm products and agritourism activities.		X			X		X		
Expand opportunities for farmers to sell directly to restaurants, institutions, retail stores and households.	X	X		X		X			
Expand and enhance the wine, cheese, and other beverage trails.					X		X		
Expand markets for local farm products among consumers outside of Schuyler County.		X			X	X	X	X	
Encourage municipalities to remove and/or avoid regulations that limit tourism-related businesses on farms and agritourism operations.	X	X				X		X	
STRATEGY 2: INCREASE ECONOMIC INTEGRATION OF AGRICULTURE, FORESTRY AND RELATED INDUSTRIES									
Maintain and enhance the Advanced Beverage industrial park facility.				X					
Support the crop diversification to develop innovative high quality, value-added products.	X	X		X					
Develop local storage, distribution and processing facilities accessible to farms within Schuyler County.	X			X				X	X
Develop small-scale or cooperative processing, distribution and/or storage facilities for niche crops such as hops or small grain.		X		X			X	X	X
Encourage municipalities to remove and/or avoid overly restrictive regulations on agriculture- related processing, storage and distribution.	X			X		X		X	
STRATEGY 3: SUPPORT YOUNG, NEW AND BEGINNING FARMERS									
Connect new and beginning farmers to landowners with farmland to sell.	X	X				X	X		
Establish a "Ag in the Classroom" curriculum utilizing an Ag Educator who can be shared by the three school districts within Schuyler County.		X				X		X	X
Educate youth and adults about farming as an occupation.	X	X				X			
Provide technical assistance to new and beginning farmers, including help with business planning, compliance with government regulations, marketing, and farm practices.	X	X				X	X		

IMPLEMENTATION MATRIX

	SCHUYLER AFPB	SCHUYLER CCE	SCHUYLER SOIL & WATER CONSERVATION DISTRICT	SCOPED	CHAMBER OF COMMERCE	FARM BUREAU	WINE, CHEESE, BEVERAGE TRAILS & INDUSTRY ASSOCIATIONS	LOCAL MUNICIPALITIES	STATE AGENCIES
--	------------------	-----------------	--	--------	---------------------------	----------------	--	-------------------------	-------------------

STRATEGY 4: RETAIN HIGHLY PRODUCTIVE FARMLAND FOR AGRICULTURAL PRODUCTION									
Protect highly productive farmland with permanent conservation easements.	X	X	X			X		X	X
Adopt and maintain land use laws that direct intensive development, including large-scale solar, away from the highest priority agricultural areas and that include provisions to limit impacts of new development on existing farmland	X		X			X		X	X
Encourage farmland owners to enroll land in the Agricultural Use Assessment program	X	X	X			X		X	X
STRATEGY 5: PROTECT WATER QUALITY AND NATURAL RESOURCES									
Encourage farmers to participate in Agricultural Environmental Management planning and to implement best management practices.	X	X	X			X			
Protect buffers along tributaries to Seneca Lake with permanent or long-term conservation easements.	X		X			X		X	
STRATEGY 6: DEVELOP PARTNERSHIPS AMONG FARMERS, MUNICIPALITIES, BUSINESSES AND INSTITUTIONS TO RECYCLE FOOD SCRAPS AND OTHER ORGANIC WASTE.									
Identify food waste generators and farms that may be able to use the food waste in their operations.		X							
Obtain grant funding for implementation of programs to reuse or process food waste on farms.	X	X		X				X	
STRATEGY 7: INCREASE UNDERSTANDING AND APPRECIATION OF AGRICULTURE AMONG LOCAL DECISION-MAKERS AND THE PUBLIC.									
Organize periodic educational events, such as an annual farm tour, for local officials and the public that celebrate agriculture in the County and inform local officials and the public about the successes and challenges of farms in the County.	X	X				X		X	X
Advocate for State legislation and funding to advance the priorities of this Plan	X	X				X		X	X
Educate Code Enforcement Officers and Animal Control officers about Agricultural District law protections for agricultural operations.	X	X				X		X	X

LIST OF APPENDICES

A. Evaluation of Municipal Land Use Regulations

- **Town of Catharine**
- **Town of Dix**
- **Town of Montour**
- **Town of Reading**
- **Town of Hector (draft zoning regulations)**

B. Stakeholder Interview Summaries

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

- Town of Catharine
- Town of Dix
- Town of Montour
- Town of Reading
- Town of Hector (draft zoning regulations)

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

Land Use Regulations Review

KEY FINDINGS AND RECOMMENDATIONS

The review of municipal land use regulations evaluated the extent to which local zoning and subdivision regulations in Schuyler County constrain or support agriculture and related businesses. The analysis examined regulations in the Towns of Catharine, Dix and Montour and Reading and the proposed regulations in the Town of Hector. The other Towns in Schuyler County have no or minimal land use regulations. As there is very little farmland within Villages, this evaluation did not address Village local laws.

The analysis addressed the following questions:

1. Do local land use regulations unreasonably restrict standard farm practices?
2. Do land use regulations accommodate agriculture-related business on farms?
3. Do land use regulations include considerations of agricultural impacts as part of development review?
4. How well do land use regulations direct development away from high quality farmland?
5. Do subdivision regulations include provisions to minimize impacts on farm operations?

The following narrative summarizes the key findings and recommendations.

1. Do local land use regulations unreasonably restrict standard farm practices?

With few exceptions, local land use regulations in Schuyler County allow agriculture and forestry “by right” in virtually all of the County’s agricultural areas, and define “farm” or “agricultural use” broadly to include all types of farm operations. Zoning regulations that affect farm practices are generally based on public health and safety criteria.

The Town of Dix zoning ordinance requires a Special Use Permit and Site Plan Review for agricultural uses as well as wineries and breweries, commercial greenhouses and stables in the MDR district, and for commercial greenhouses and stables.

- **Recommendation:** Modify this requirement to exempt farm operations within a certified Agricultural District that meet the threshold for protection under NYS Agricultural Districts Law.

Roadside stand regulations in the Town of Dix may be unreasonably restrictive by prohibiting roadside stands on land other than the farm where the products are grown. The limit of 15 feet in height and 2,000 sq. ft. in area disallows larger farm markets; these would require a special use permit and site plan review as a “retail sales” operation, which is only allowed in the Mixed Use zoning district.

- **Recommendation:** Modify provisions for roadside stands and farm markets in the Town of Dix to accommodate to allow them as both principal and accessory uses in additional areas. Require site plan review for farm markets over a certain size to

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

ensure safe access, sufficient parking and appropriate landscaping and other site design components.

The definition of “Agriculture” in the Town of Hector’s draft zoning regulations excludes “agricultural industry” and states that only “produce sales facilities” smaller than 800 square feet in footprint area are considered accessory uses to farms. The term “agricultural industry” is not defined and it is not clear what is intended. The exceptions included in the definition are unnecessary and may unreasonably restrict farm practices.

- **Recommendation:** Remove exclusions from the definition and clarify the meaning of “agricultural industry.” Limitations or regulations on produce sales or other agriculture-related uses should be part of the district regulations and not part of the definition.

2. Do land use regulations accommodate agriculture-related business on farms?

Several Towns require site plan review for certain agriculture-related uses, such as wineries/ breweries/ distilleries; farm markets; greenhouses; timber processing. Some regulations may be overly restrictive by limiting roadside stands to the same parcel where the produce is grown.

- **Recommendation:** Exempt businesses that are integral to farm operations protected through NYS Agricultural District Law. Add provisions for small scale processing, storage, and other businesses on farms.

3. Do land use regulations include considerations of agricultural impacts as part of development review?

Except for the Town of Reading’s requirement that new non-agricultural uses adjoining existing farmland incorporates buffers, none of the land use regulations require consideration of impacts on agricultural infrastructure or access roads. The Town of Reading Land Use Law includes provisions that require.

- **Recommendation:** Add provisions to require consideration of potential agricultural impacts during the review of proposed site plans and special use permits.

4. How well do land use regulations direct development away from high quality farmland?

All of the Towns allow residential development throughout the municipality (except for in designated industrial areas.) None of the Towns have regulations that would prevent development on high quality farmland.

- **Recommendation:** Zoning regulations that prioritize farming and limit residential development are not recommended at this time.

5. Do subdivision regulations include provisions to minimize impacts on farm operations?

Subdivision regulations in the Towns of Catharine and Montour authorize the Planning Board to require “conservation subdivisions,” also known as clustered subdivisions, to minimize impact of development on farmland.

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

However, the use of conservation subdivisions as a land protection tool is rarely effective at preserving significant amounts of farmland. The effectiveness of this tool depends on its execution. It is difficult with a small area to preserve sufficient farmland in a configuration that would ensure continued viability for farming. In addition, if farmland is preserved as part of a conservation subdivision, it is difficult to incorporate sufficient buffers into the design to avoid the potential for conflicts between the farm and the new residential development.

The Town of Catharine's subdivision regulations require the Planning Board to consider potential impacts on drainage systems, access roads and equipment lanes.

- **Recommendation:** All Towns with subdivision regulations should add provisions to require the developer to note locations of agricultural infrastructure and for the Planning Board to consider impacts on agriculture in their review

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

INTRODUCTION

This review of local zoning and subdivision regulations and other local laws evaluates the extent to which local land use regulations in Schuyler County constrain or support agriculture and related businesses.

Zoning laws typically identify certain uses that are permitted “by right.” These are listed in the regulations as permitted, with zoning permits administered by the code enforcement officer without any board review.

Other permitted uses may require a site plan review or special use permit issued by the planning board or other appointed board. The site plan review process allows for site-specific review of considerations such as how the proposed use or structure is laid out on the parcel, the adequacy of access, screening, drainage and the protection of natural resources. Uses allowed with a special permit are permitted subject to certain conditions. If the use as proposed does not meet those conditions, the board responsible for review may deny the special permit request.

Zoning regulations may also include, establish minimum lot sizes, setbacks from lot lines, and other provisions. These dimensional requirements typically vary based on the type of use and/or the zoning district

Subdivision regulations govern the way lots are split off from a parent parcel. Municipalities may adopt subdivision regulations as a local law or through

Provisions for “cluster” or “conservation” subdivisions allow a residential subdivision to include lots that are smaller than required by zoning, provided that that a portion of the parent parcel is set aside as open space and the average density does not exceed that required in a traditional subdivision. Some subdivision regulations allow for additional units as a “bonus” if additional land is set aside for open space.

In Schuyler County, the Towns of Catharine, Dix and Montour have both zoning and subdivision regulations. The Town of Reading has a Land Use Law that does not divide the Town into zoning districts. The Town of Hector has drafted zoning regulations but has not yet adopted them.

The following review evaluates the regulations in the Towns of Catharine, Dix and Montour and Reading and the proposed regulations in the Town of Hector based on the following:

6. Do local land use regulations unreasonably restrict standard farm practices?
7. Do land use regulations accommodate agriculture-related business on farms?
8. Do land use regulations include considerations of agricultural impacts as part of development review?
9. How well do land use regulations direct development away from high quality farmland?
10. Do subdivision regulations include provisions to minimize impacts on farm operations?

APPENDIX A**EVALUATION OF MUNICIPAL LAND USE REGULATIONS****1. Do local land use regulations unreasonably restrict standard farm practices?**

NYS Agricultural Districts Law limits the enforcement of local land use laws that unreasonably restrict standard farm practices, unless the restrictions are necessary to protect public health and safety. The NYS Department of Agriculture & Markets has published several guides to help municipalities determine what comprises reasonable local regulation. Those relevant to communities in Schuyler County are appended to this report.

This assessment of whether local laws unreasonably restrict agricultural practices applies the following general principles:

- a) *The definition of farming should be broad enough to include all types of farming.*
- b) *Agriculture should be permitted “as of right” in all areas of the Town where it occurs.*
- c) *Zoning requirements for agricultural uses should be based on public health and safety, rather than aesthetics or nuisance.*
- d) *A special use permit should not be required for agricultural uses or farm practices.*
- e) *Site plan review criteria for agricultural facilities should be limited to those that protect public health and safety.*

2. Do land use regulations accommodate agriculture-related and other business on farms?

Although many agriculture-related businesses are not included in the definition of farm operations that are protected by NYS Agricultural Districts Law, they are integral to Schuyler County’s tourism and agricultural economy and contribute to the rural character of Schuyler County communities. In addition, some farmers engage in businesses unrelated to agriculture to supplement their income. This may include an equipment repair business or the manufacture wood furniture or baked goods on the farm for sale. “Farm friendly” land use regulations allow a variety of on-farm businesses.

Businesses that may co-locate with agricultural uses include:

- small-scale manufacturing to produce value-added products
- storage and distribution businesses
- equipment repair
- retail sales of farm and other products

If the business is located on the same parcel as the farmstead, it would be regulated as a “home occupation” or a “home business.” If the business is on a separate parcel from the farm, it would be subject to regulations as a business or industrial operation.

Municipal zoning regulations in Schuyler County require site plan and a special use permit for businesses that are not directly related to agricultural production. Typically a special use permit and site plan review are required.

While NYS Agricultural Districts Law prevents unreasonable enforcement of laws that restrict standard farm practices, it does not limit the ability of municipalities to restrict other agriculture-related businesses. In general, on-farm businesses that directly support an agricultural

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

operation within an Agricultural District are protected. A business that generates more revenue than the sale of farm products does is not considered to be part of the farm operation and protected by the restrictions on local laws in the NYS Agricultural District Law.

An example of an agricultural support businesses that would be protected through Ag & Markets is a “corn maize” that attracts visitors to a farm to purchase farm products. A winery is considered part of a farm operation if the grapes used to produce the wine are predominantly grown on the farm. See NYS Ag & Markets guidance relating to wineries for more information about this distinction.

3. Do land use regulations include considerations of agricultural impacts as part of development review?

When reviewing applications for site plan review or special use permits in agricultural areas, municipal boards should consider the potential impacts of the proposed development on farmland and agriculture. For example, the site plan should identify any accessways to existing farm fields and existing agricultural infrastructure such as tile drainage. Zoning regulations should include criteria to allow the board to require modifications to the proposed development that would minimize these impacts.

Several municipal zoning regulations in Schuyler County note that an “Agricultural Data Statement” must be submitted with an application for development that affects land within a NYS-certified Agricultural District. This process provides information to the board reviewing applications for a special use permit, site plan review, use variance or subdivision about farm operations within 500 feet of the proposed development. However, specific criteria in land use regulations is recommended to help the boards responsible for the review of site plans and special permits to minimize the impact of new development on nearby farm operations.

4. How well do land use regulations direct development away from high quality farmland?

Zoning regulations in rural areas often state that the intent of the regulation is to direct development away from high quality farmland. In practice, however, it is difficult to limit development in high quality agricultural areas while allowing landowners to sell lots for development. As land use regulations permit residential development throughout the Town, the impact of new development driven by market demand can be managed but, generally, not avoided.

Most zoning regulations for rural and agricultural areas allow development of single family dwelling “by right.” The zoning enforcement officer is responsible for reviewing the application to determine whether it meets zoning requirements.

As no site plan review is required, there is no formal mechanism in zoning to ensure that new single family development avoids high quality farmland. If the proposed development meets the

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

requirements, the zoning officer does not have discretion to disapprove a development proposal based on whether the house is placed in the highest quality farmland or in that portion of the lot where soils are less conducive to farming.

Some rural communities enact large minimum lot sizes with the intent of protecting rural character. However, requiring lot sizes of more than two acres results in more conversion of farmland, as each house lot would require more land than is needed and the excess generally must be maintained as lawn or grows into scrub. None of the municipalities in Schuyler County require excessively large minimum lot sizes; land use regulations require minimum lot sizes of one to two acres.

To effectively limit residential development in agricultural areas, zoning provisions that prevent scattered residential would need to the creation of new lots to a minimum of 20 acres or more, consistent with the size required to operate a farm operation, and/or to prohibit residential development that is not associated with farm use. Few communities in New York State have adopted exclusive agricultural zoning because of the extent to which it limits landowner options. No municipalities in Schuyler County have exclusive agricultural zoning and this approach is not recommended at this time.

5. Do subdivision regulations include provisions to minimize impacts on farm operations?

Subdivision regulations enable the municipal planning board to review the proposed layout of lots. At this stage of the development review process, it is possible to plan the lot layout to avoid siting house lots on the most viable farmland and to avoid impacts on natural resources such as streams and woods.

Well-designed subdivisions should:

- avoid fragmentation of farmland;
- maintain existing access to farm fields; and
- minimize disruption of drainage patterns that would affect agricultural lands.

These considerations should be included in the criteria for subdivision review and applied by the planning board during subdivision review.

For subdivisions of five or more lots, cluster or conservation subdivisions offer a mechanism to permanently protect farmland, natural resource protection or open space. The challenge is to design the conservation subdivision to ensure that the preserved land is large enough and configured in such a way that it continues to be viable.

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

EVALUATION OF LAND USE REGULATIONS

TOWN OF CATHARINE

The Town of Catharine adopted a zoning and subdivision regulations as a local law in December 2016. Most of the Town is within the Rural Agricultural Zone. The hamlet of Alpine Junction and surrounding area is zoned Rural Neighborhood.

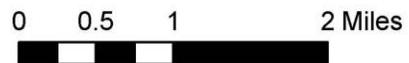
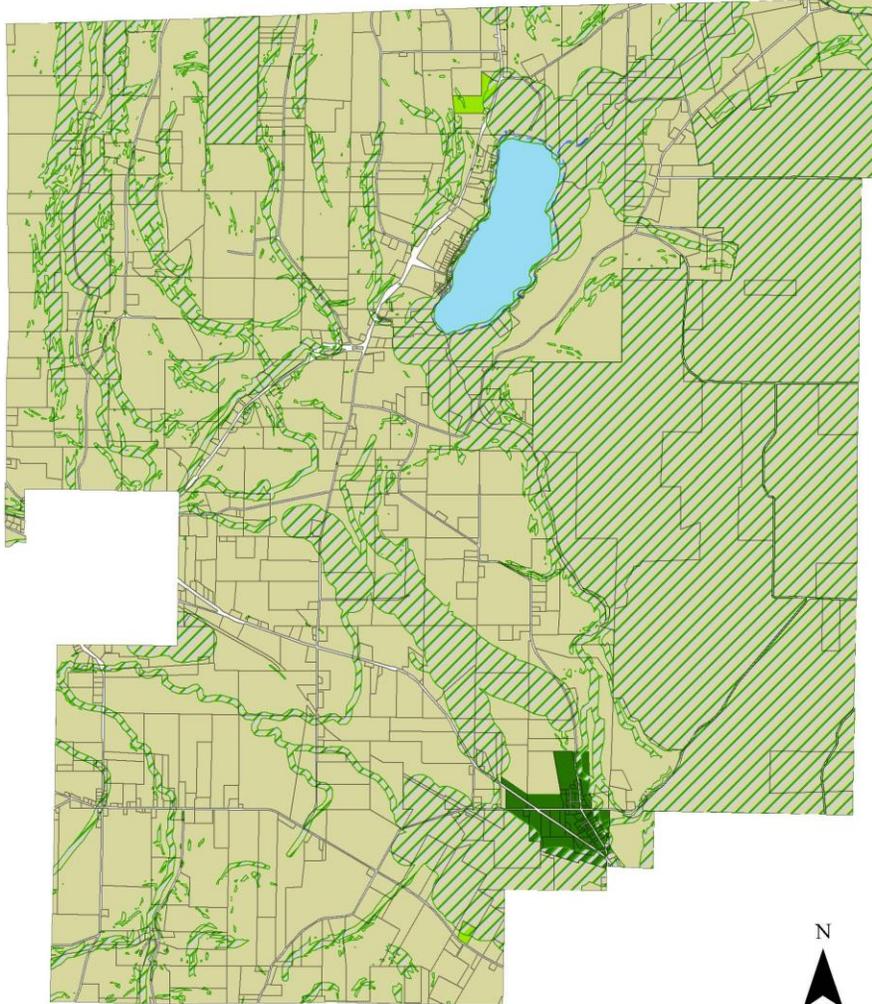
The Conservation Overlay Zone applies additional regulations to wetlands, stream corridors and steep slopes in order to protect these sensitive natural resources. These areas include:

- wetlands delineated by the NYS Department of Environmental Conservation and a 100-foot buffer
- land within 50 feet of stream banks
- areas with 15% or greater slope and, as a buffer, areas within 50 feet of the slope top, toe and side

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

Town of Catharine Zoning Map



Legend

-  Conservation Overlay Zone
-  Rural Agricultural Zone
-  House Trailer Zone
-  Rural Neighborhood Zone

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

1. Do local land use regulations unreasonably restrict standard farm practices?

a) *Agriculture should be permitted “as of right” in all areas of the Town where it occurs*

In the Rural Agricultural Zone, which encompasses nearly all of the Town, and the Rural Neighborhood Zone, “agricultural uses” and “forestry and silviculture” are permitted “as of right.” Agriculture is permitted in areas with steep slopes and within stream corridors.

b) *The definition of farming should be broad enough to include all types of farming*

The definition of “Agricultural Use” is broad enough to include all types of farm operations.

- AGRICULTURAL USE - The use of land for the production, preparation, marketing or transportation of grain, vegetable, fruit, and other crops, horticultural and floricultural products, animal husbandry, livestock and livestock products, as well as the buildings, structures, equipment, animal waste and manure processing and handling facilities and associated operations necessary to support such production activities and practices, including a commercial horse boarding operation as defined in NYS Agriculture and Markets Law Article 25-AA, Section 301.

c) *Zoning requirements for agricultural uses should be based on public health and safety*

The Town’s zoning regulations include specific requirements for “Animal Waste Storage Facilities,” defined as, “Any building, structure, pond, lagoon or yard for the bulk storage of animal waste for eventual removal and/or dispersion.” The Town requires a building permit with plans designed by and stamped with the seal of a NYS licensed design professional. Setback requirements include:

- 50 feet from a road right-of-way, but not closer than the nearest permanent structure
- 30 feet from a side or rear property line
- 100 feet from an existing occupied residence or non-agricultural building
- 100 feet from any well, watercourse or waterbody for a lined animal waste storage facility
- 300 feet from any well, watercourse or waterbody for an unlined animal waste storage facility

These requirements are likely consistent with guidance published by the NYS Agriculture & Markets Guidance.

d) *A special use permit should not be required for agricultural uses or farm practices.*

No agricultural uses require a special use permit

e) *Site plan review requirements for agricultural facilities should be limited to those that protect health and safety*

The following agricultural facilities require site plan review:

- Farmworker housing that could include house trailers;

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

- Farmworker housing of more than one residence.
- Permanent farm stands;
- Breweries, Distilleries, and Wineries;
- Timber harvesting
- Timber processing

In the Town of Catharine, the Town Planning Board is authorized to review and approve, approve with modifications and conditions, or disapprove site plans “to ensure that land development occurs in harmony with surrounding uses and the Town of Catharine Comprehensive Plan, without adversely impacting neighboring parcels, property values, public facilities, infrastructure, or the natural environment.”

To obtain site plan approval, the applicant needs to meet with the Planning Board for a “sketch plan” conference, at which time the Planning Board will determine whether any additional information is needed or whether further Site Plan Review may be waived. The regulations include a Site Plan checklist for farm operations within a NYS-certified Agricultural District that is less extensive than the checklist for other uses.

The Site Plan Review requirement for these uses would be overly restrictive if applied in a way that is unreasonably burdensome without a basis in health and safety. (See the guidance documents prepared by NYS Ag & Markets for review of local laws relating to: direct farm marketing; wineries, breweries, cideries and distilleries; greenhouses; nutrient management systems; and farmworker housing.) When reviewing site plan proposals for agricultural uses within a certified Agricultural District, the Planning Board will need to ensure that the process the conditions imposed through site plan review are not overly burdensome.

2. Do land use regulations accommodate agriculture-related and other business on farms?

The Town of Catharine Zoning Ordinance allows the following agriculture-related businesses as permitted principal uses in the Rural Agricultural Zone:

- Agriculture-related Enterprises
- Agricultural recreational and educational events
- Nurseries, Lawn/landscape services, orchards, greenhouses, vineyards;
- Produce and roadside stands, including only movable or temporary structures for the sale of agricultural products grown principally by the operator during the harvest season

The following permitted uses require site plan review:

- Permanent farm stands
- Breweries, Distilleries, and Wineries
- Timber harvesting
- Timber processing

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

These provisions accommodate a range of business operations on farms, provided that the business is interpreted to be an “Agriculture-related enterprise.”

Businesses that may supplement farm income but are not determined to be “agriculture-related” would require rezoning to the “Business” or “Industrial” zone. The “Business” floating zone (meaning that it exists on paper but no areas have been mapped) lists the following permitted principal uses:

- Agriculture-Related Enterprises
- Stores and shops for conducting any retail or personal services, business and food processing plants when the products are for sale exclusively on the premises.
- Wholesale trades and businesses.

The following businesses are allowed only in the Industrial zone:

- Any lawful manufacturing and/or industrial activity.
- Warehouse

3. Do land use regulations include considerations of agricultural impacts as part of development review?

The Town’s Site Plan Review criteria note that an Agricultural Data Statement is required, as well as a stormwater management plan (“Stormwater Pollution Prevention Plan (SWPPP), as required by law”), but do not include specific criteria for considering how new non-agricultural development may impact neighboring farms.

4. How well do land use regulations direct development away from high quality farmland?

The Town’s regulations allow residential development virtually all of the Town.

5. Do subdivision regulations include provisions to minimize impacts on farm operations

The Town’s subdivision regulations specify that if a proposed subdivision would adversely affect “prime farmland or farmland of statewide significance,” the planning Board could require a conservation subdivision design.

The regulations also include specific criteria aimed at minimizing impacts on existing farm operations:

6. PROTECTION OF AGRICULTURAL INFRASTRUCTURE AND SIGNIFICANT AGRICULTURAL LANDS - Consideration will be given to maintaining agricultural viability and protecting significant agricultural lands by minimizing adverse impacts on agricultural land remaining from the subdivision, prime and unique agricultural soils, adjoining or nearby agricultural land and operations, existing natural buffers, and agricultural infrastructure including but not limited to surface and subsurface agricultural drainage systems, farm equipment access points, and equipment lanes.

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

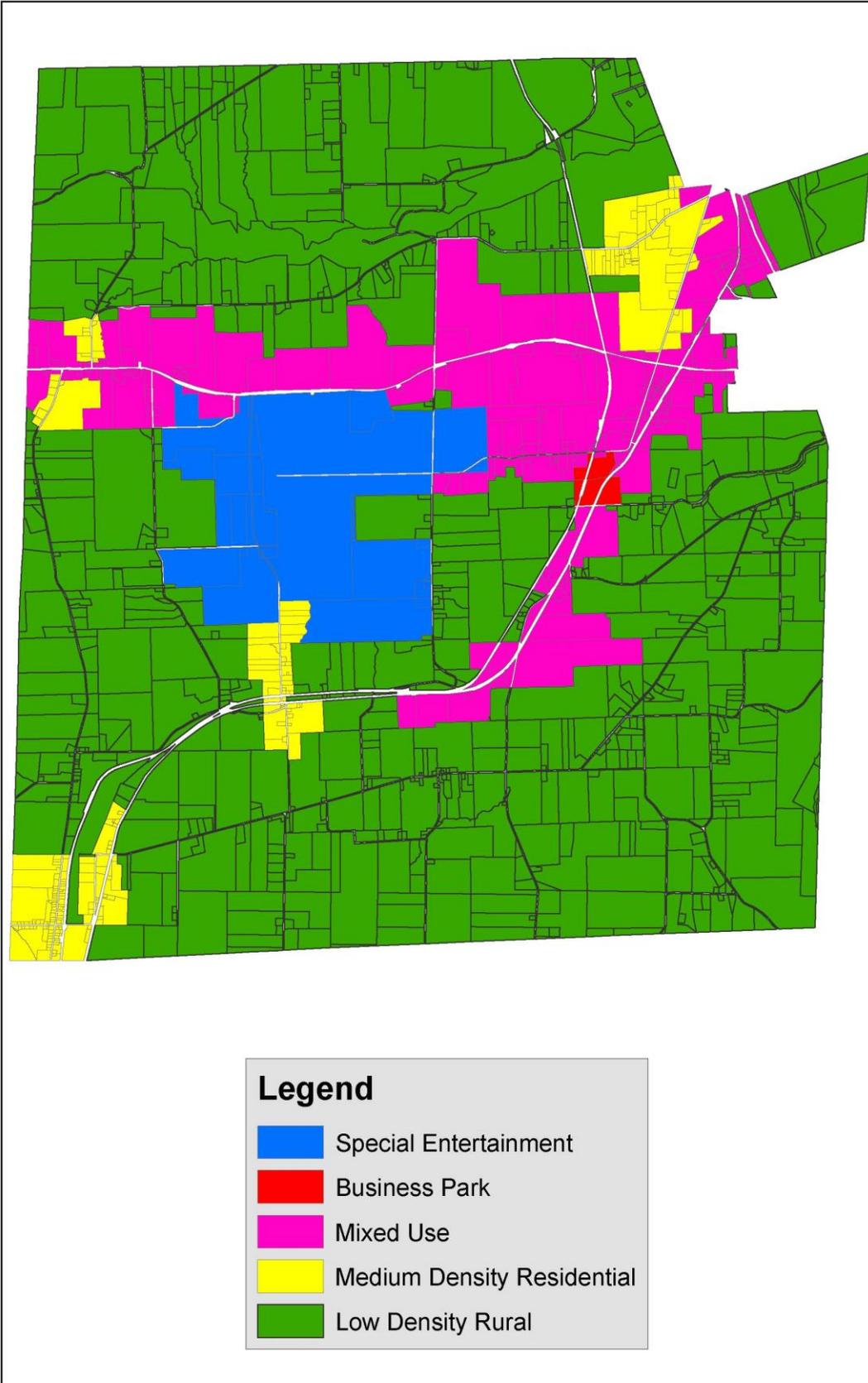
TOWN OF DIX

The Town of Dix updated its Zoning Ordinance in February 2016. The Zoning Ordinance establishes five distinct Zoning Districts:

- Low Density Rural
- Medium Density Residential
- Mixed Use
- Business Park
- Special Entertainment

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS



APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

The Town Planning Board is responsible for the review and approval of both site plans and special use permits.

1. Do local land use regulations unreasonably restrict standard farm practices?

a) *The definition of farming should be broad enough to include all types of farming*

The Town's zoning ordinance defines agriculture as follows:

AGRICULTURE, LIVESTOCK OR CROPS - The use of a parcel of land in the raising of agricultural products, trees, nursery stock, livestock, poultry or dairy products. It includes necessary farm buildings and the storage of necessary equipment.

AGRICULTURAL OR FARM BUILDING - Any building used for the housing of agricultural equipment, products, livestock or poultry, or for the incidental or customary processing of farm products, and provided that such building is located on, operated in conjunction with and necessary to agricultural or farming operations as defined in this article. The term "farm building" shall not include dwelling units.

AGRICULTURAL OR FARMING OPERATION - The use of a parcel of land in the raising of agricultural products, trees, nursery stock, livestock, poultry or dairy products, breweries, or wineries. It includes necessary farm buildings and the storage of necessary equipment.

BREWERY/ WINERY—An agricultural operation or facility used for the fermentation and processing of beer or wine.

"Stables" and "Greenhouse" are defined separately and not explicitly included in the definition of agriculture:

STABLES - Premises on which one or more horses are boarded, whether or not by the owner, whether kept for agricultural or personal uses, or where horses are maintained commercially for hire, breeding, exhibition, or sale.

GREENHOUSE, COMMERCIAL—A glass or plastic enclosed structure for cultivating plants that must have controlled temperature and humidity, used to grow plants for wholesale or retail purposes.

GREENHOUSE, PERSONAL—A glass or plastic enclosed structure for cultivating plants that must have controlled temperature and humidity, not used for wholesale or retail purposes

Stables and greenhouses located in certified Agricultural Districts may be protected from unreasonable local regulation if they meet the thresholds for an eligible "farm operation" specified in the NYS Agricultural Districts Law.

b) *Agriculture should be permitted "as of right" in all areas of the Town where it occurs*

APPENDIX A**EVALUATION OF MUNICIPAL LAND USE REGULATIONS**

“Agriculture, livestock or crops” and “brewery & winery” are permit “by right” in the LDR, Mixed Use and Special Entertainment districts. A special use permit is required for agriculture in the Medium Density Residential district. Agriculture, wineries and breweries are not permitted use in the Business Park district.

“Greenhouse, commercial” is permitted in the “by right” in the LDR and Mixed Use Districts and require a special use permit in the MDR district.

“Stables” are allowed by right in the LDR and require a special use permit in the Mixed Use district. Stables are prohibited in the MDR, Business Park and Special Entertainment Districts. **This requirement should be modified to exempt farm operations within a certified Agricultural District that meet the threshold for protection under NYS Agricultural Districts Law.**

- c) *Zoning requirements for specific agricultural practices should be based on public health and safety*

The Town’s zoning ordinance does not regulate specific agricultural practices. On the contrary, the zoning specifically exempts agriculture from complying with certain provisions. Restrictions on “Outdoor storage of materials and equipment” do not apply where, “Such outdoor storage is limited to machinery, equipment or supplies typical to the operation of a farm or storage of any products grown on the premises of a farm or nursery.” “Fencing used for agricultural purposes on farms” is also exempt from zoning regulations.

- d) *A special use permit should not be required for agricultural uses or farm practices.*
 e) *Site plan review requirements should be limited to those that protect public health and safety.*

The Town’s zoning ordinance requires a Special Use Permit and Site Plan Review for agricultural uses as well as wineries and breweries, commercial greenhouses and stables in the MDR district, and for commercial greenhouses and stables. **This requirement should be modified to exempt farm operations within a certified Agricultural District that meet the threshold for protection under NYS Agricultural Districts Law.**

Regulations that require a special use permit for “Keeping of Livestock” do not apply to livestock that is part of “an agricultural or farming operation or agricultural youth project.”

2. Do land use regulations accommodate agriculture-related and other business on farms?

The Town of Dix allows Roadside Stands as an accessory use in the LDR, MDR Mixed Use districts subject to Site Plan Review. Roadside stands are not permitted in the Special Entertainment district. Roadside stands would not be allowed as a principal use; it must be located on the same premises as the agricultural production.

ROADSIDE STAND – A permanent or temporary structure for the sale of agricultural products grown primarily on the premises where they are sold.

VII-22 Roadside stands.

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

- A. If allowed by zone regulations, produce, including fresh fruit, vegetables, flowers or other products of the soil, may be sold or offered for sale as an accessory use.
- B. If such sales of produce are from a structure, such structure shall not exceed 2,000 square feet in area nor exceed 15 feet in height.
- C. The Planning Board during Site Plan Review shall ensure that the proposed structure is architecturally compatible with the surrounding neighborhood and that adequate off-street parking is provided for a minimum of two vehicles.
- D. Signs may be permitted in compliance with the sign regulations in Article XI.
- E. Nothing herein contained shall be applicable to the sale of livestock or the bulk sale of produce.

The regulations may be unreasonably restrictive by prohibiting roadside stands on land other than the farm where the products are grown. The limit of 15 feet in height and 2,000 sq. ft. in area disallows larger farm markets; these would require a special use permit and site plan review as a “retail sales” operation, which is only allowed in the Mixed Use zoning district.

Recommendation: Modify provisions for roadside stands and farm markets in the Town of Dix to accommodate to allow them as both principal and accessory uses in additional areas. Require site plan review for farm markets over a certain size to ensure safe access, sufficient parking and appropriate landscaping and other site design components.

3. Do land use regulations include considerations of agricultural impacts as part of development review?

Development review does not require consideration of potential impacts on agriculture.

4. How well do land use regulations direct development away from high quality farmland?

Land use regulations allow residential development in agricultural areas throughout the Town and do not limit development in areas with high quality farmland.

5. Do subdivision regulations include provisions to minimize impacts on farm operations

Not applicable.

TOWN OF MONTOUR

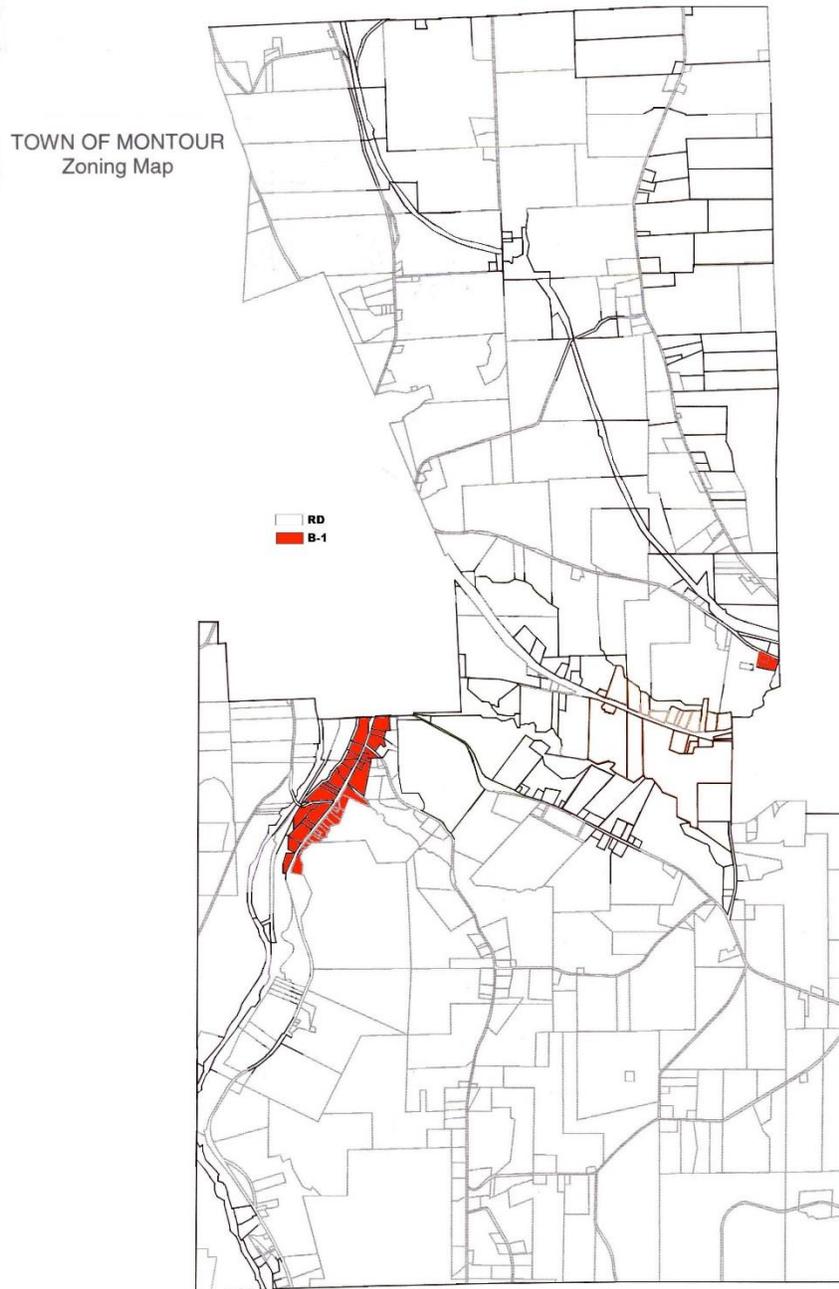
The Town of Montour adopted its current zoning law in December 2008. The Zoning Law establishes two zoning districts: Rural Development (RD), which encompasses most of the Town, and Business (B-1) which includes land south of Watkins Glen.

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

Town of Montour Zoning Law

December, 2008



APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

1. Do local land use regulations unreasonably restrict standard farm practices?

- a) *The definition of farming should be broad enough to include all types of farming*

The definition of agriculture includes all types of farming as well as accessory uses:

Agriculture - Operations including, but not limited to, farms, greenhouses, plant nurseries, gardens and tree farms or game preserves, where crops such as trees, plants, game animals, fish and birds are harvested by the general public under the supervision of the land owner or lessee and any other such accessory use, buildings or structures, customarily incidental to said agricultural operations.

Farm - Any plot of ground over three acres in size and used strictly for agricultural operations. These include the cultivation of the ground for the production of crops, the raising of livestock and other closely related items.

- b) *Agriculture should be permitted “as of right” in all areas of the Town where it occurs*

Agriculture is permitted “by right” in the RD district, where virtually all of the Town’s farm operations are located. Agriculture is not a permitted use in the B-1 Business District.

- c) *Zoning requirements for agricultural uses should be based on public health and safety*

The Town’s zoning law does not include regulations governing specific agricultural uses.

The zoning law specifically exempts farms from provisions for keeping of livestock as an accessory use (VII-10), outdoor storage of materials and equipment (VII-14), and fencing (VI-16.)

- d) *A special use permit should not be required for agricultural uses or farm practices.*
e) *Site plan review criteria for agricultural facilities should be limited to those that protect public health and safety.*

The Town’s zoning law does not require any site plan review or special use permits for agricultural uses.

2. Do land use regulations accommodate agriculture-related and other business on farms?

The Town of Montour Zoning Law allows home occupations as an accessory use in all districts.

Businesses allowed in the RD district with a special use permit include:

- Bed and breakfast and tourist homes
- Clubs and lodges
- Home businesses
- Light manufacturing
- Hotels and motels
- Restaurants
- Wineries

Farms could incorporate these types of businesses into their operation or add them as a supplemental business subject to a special use permit from the Planning Board.

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

3. Do land use regulations include considerations of agricultural impacts as part of development review?

The Special Use Application Requirements (§ 100-50) in the Town of Montour Zoning Law do not require the applicant to note any agricultural infrastructure on or adjoining the site nor whether the site adjoins active farmland. **Recommendation: Add provisions to require consideration of potential agricultural impacts during the review of proposed site plans and special use permits.**

4. How well do land use regulations direct development away from high quality farmland?

The Town of Montour Zoning Law allows one- and two-family dwellings in the RD district subject only to a building and zoning permit from the code enforcement officer. The zoning regulations do not prevent incremental residential development on high quality farmland.

5. Do subdivision regulations include provisions to minimize impacts on farm operations?

The Town of Montour Zoning Law includes provisions for conservation subdivisions with five or more lots. The law authorizes the planning board to require conservation subdivisions, “in those instances where conventional subdivisions or residential developments would cause significant loss of open space, agricultural lands or otherwise result in significant negative environmental impacts.”

The effectiveness of this approach depends on its execution. It is difficult with a small area to preserve sufficient farmland in a configuration that would ensure continued viability for farming.

TOWN OF READING

The Town of Reading adopted updated Land Use Regulations in October 2018 following a process of public engagement guided by the Town Planning Board. The Town’s Land Use Law does not designate zoning districts; the regulations apply to land throughout the Town.

1. Do local land use regulations unreasonably restrict standard farm practices?

a) *Agriculture should be permitted “as of right” in all areas of the Town where it occurs*

Agriculture is permitted throughout the Town of Reading.

b) *The definition of farming should be broad enough to include all types of farming*

“Agricultural Production” is broadly defined to include silvaculture as well as value-added processing, “at the same or contiguous location with shared ownership.”

c) *Zoning requirements for agricultural uses should be based on public health and safety*

d) *A special use permit should not be required for agricultural uses or farm practices.*

e) *Site plan review criteria for agricultural facilities should be limited to those that protect public health and safety.*

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

The Town's Land Use Regulations do not regulate agricultural uses. Agriculture and forestry uses do not require any land use permit. No special use permit or site plan review is required for any agricultural or forestry use.

2. Do land use regulations accommodate agriculture-related and other business on farms?

The Town of Reading Land Use Law allows business of all kinds throughout the Town, subject to site plan review and/or special use permit, depending on the size.

3. Do land use regulations include considerations of agricultural impacts as part of development review?

The Town of Reading Land Use Law includes provisions that require new non-agricultural uses adjoining existing farmland to incorporate buffers. The law notes the requirement for applicants for special use permits and site plan review to submit an Agricultural Data Statement if the project would affect farmland within 500 feet of a NYS-certified Agricultural District. The law also states that the Planning Board must require applicants for development permits to issue the following disclosure to potential owners or renters that, "this property adjoins land used for agricultural purposes. Agricultural operators have the right to apply approved chemical or organic fertilizers, pesticides, or herbicides, and to engage in farm practices which may generate dust, odor, smoke, noise and vibration." The disclosure must be included in the site plan or subdivision plat and provided to prospective owners or renters.

4. How well do land use regulations direct development away from high quality farmland?

The Town of Reading Land Use Law allows one- and two-family dwellings throughout the Town subject only to a building and zoning permit from the code enforcement officer. The zoning regulations do not prevent incremental residential development on high quality farmland.

5. Do subdivision regulations include provisions to minimize impacts on farm operations?

The Town of Reading does not review proposed subdivisions.

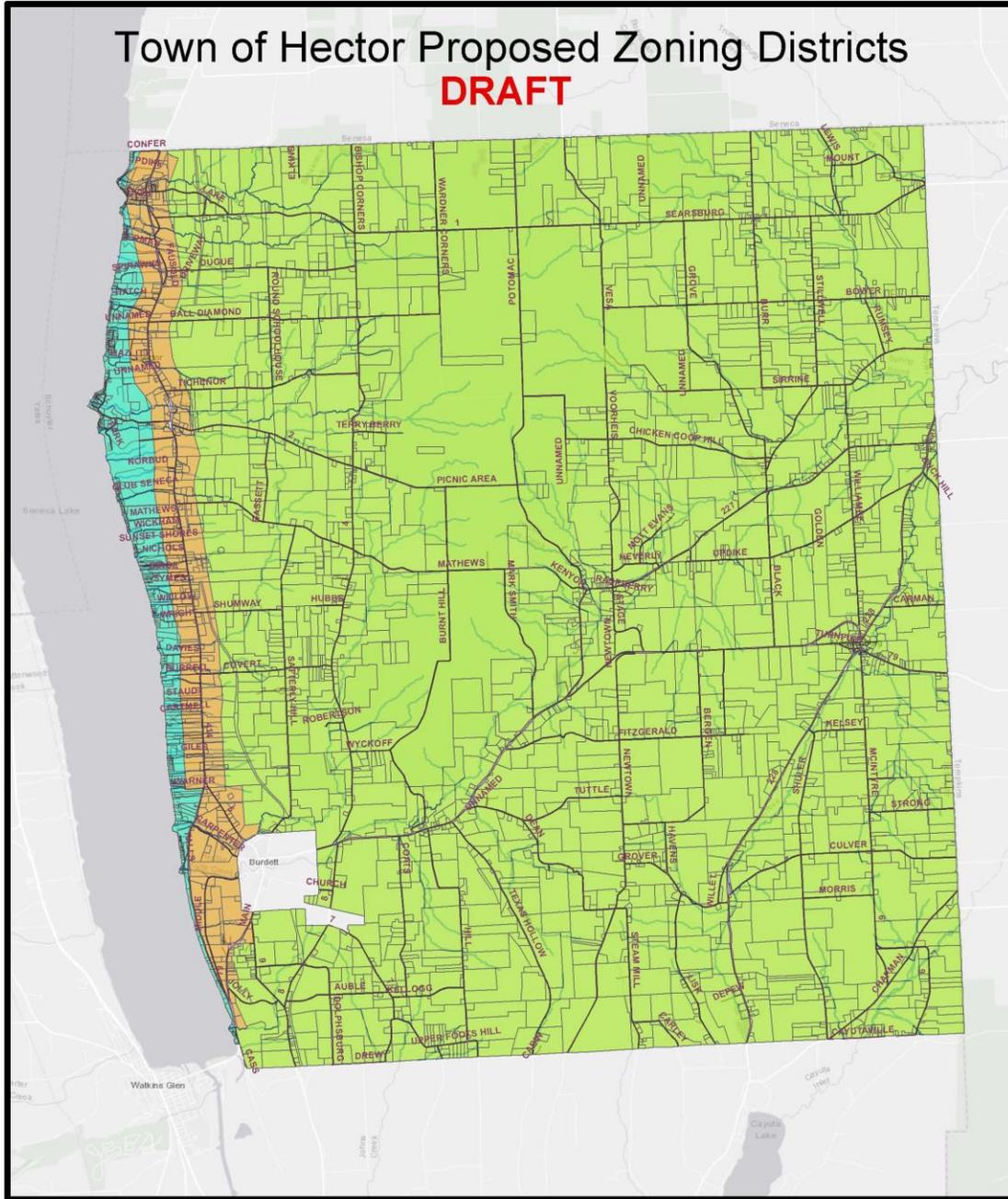
TOWN OF HECTOR (DRAFT ZONING REGULATIONS)

The Town of Hector prepared a draft Zoning Law dated 5/18/20 that is currently out for public review. The draft zoning law divides the Town into three districts:

- Low Density Residential (LDR)
- Lakefront (LF)
- Mixed Purpose Corridor

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

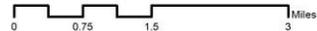


- Mixed Purpose Corridor (MPC)
- Lakefront (LF)
- Low-Density Rural (LDR)
- Roads
- Streams

Disclaimer: This map was created based on 2018 Schuyler County property parcels and proposed zoning districts provided by Schuyler County Planning Department. This map is not to be used for reference purposes or in any official capacity until approved by Schuyler County.

Created By: Southern Tier Central
RPDB GIS

Date: 5/18/2020



APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

1. Do local land use regulations unreasonably restrict standard farm practices?

- a) *The definition of farming should be broad enough to include all types of farming*

The definition of “Agriculture” in the draft appears intended to limit certain types of processing and large farm markets:

Agriculture: The commercial use of land and structures for the production, preservation, nonindustrial processing, storage and sale of agricultural commodities such as crops, plants, flowers, vines, trees, sod, shrubs, livestock, honey, Christmas trees, compost, poultry or dairy products, not including agricultural industry or farms primarily for the disposal of offal or garbage. Commercial horse boarding operations, as defined herein, and the raising or breeding of horses are agricultural uses, distinguished from the business use of teaching or training people to ride a horse. (See “Riding Academy.”) A produce sales facility not exceeding 800 square feet in footprint area and a riding academy operated in conjunction with a farm operation (as defined herein) shall be deemed to be agricultural accessory uses.

The exceptions included in the definition are unnecessary and may unreasonably restrict farm practices. For example, an on-farm produce sales facility larger than 800 sq. ft. may be necessary to support the farm operation.

The term “agricultural industry” is not defined and it is not clear what is intended.

[Note: Current best practice in zoning discourages regulatory statements within the definition. Rather than addressing waste disposal in the definition of Agriculture, we recommend that the Town state this restriction more clearly in the Development Regulations section of the zoning (Article 8.)]

- b) *Agriculture should be permitted “by right” in all areas of the Town where it occurs*

The proposed zoning would allow agriculture (as defined) “by right” in all zoning districts. A “Nursery,” “Riding Academy” and “Roadside Stand” are also allowed “by right” in all districts.

- c) *Zoning requirements for agricultural uses should be based on public health and safety.*

The Town’s draft zoning does not include requirements for agricultural uses, other than requirements associated with site plan review.

The draft zoning regulations require a landscaped “buffer yard” 25 feet in depth between a proposed agricultural use that requires site plan review and a residential use. (Section 8.19) The buffer yard would not be required if the current use is agricultural, but would be required if the current use is residential, business or community use and the proposed use is agricultural. This provision would likely be determined to be unreasonable if enforced against a farm operation within a certified Agricultural District that meets the threshold for protection in the NYS Agricultural Districts law.

- d) *A special use permit should not be required for agricultural uses or farm practices.*
e) *Site plan review criteria for agricultural facilities should be limited to those that protect public health and safety.*

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

The draft zoning regulations require a special use permit and site plan review for “wineries/ breweries/ distilleries.”

As the definition of “Agriculture” excludes on-farm retail market larger than 800 sq. ft., such a facility would be considered a “retail business” subject to site plan review and a special permit.

2. Do land use regulations accommodate agriculture-related business on farms?

The proposed Town of Hector Zoning Laws would accommodate a range of agriculture-related and other businesses on farms.

The draft zoning law would allow bed and breakfasts, home occupations and offices as permitted uses in all districts.

The draft zoning law would allow wineries, breweries and distilleries in all zoning districts with a special use permit. Other businesses allowed with a special use permit in all zoning districts include recreation businesses, restaurants, vacation resort, and retail businesses. Businesses allowed in the LDR district only with a special use permit are kennels and storage facilities under 60,000 sq. ft. Vehicle repair shops would be allowed with a special use permit in the LDR district only.

3. Do land use regulations include considerations of agricultural impacts as part of development review?

Several municipal zoning regulations in Schuyler County note that an “Agricultural Data Statement” must be submitted with an application for development that affects land within a NYS-certified Agricultural District.

4. How well do land use regulations direct development away from high quality farmland?

The Town of Hector draft zoning regulations would limit solar development projects located on agricultural lands (Section 8.14: Solar Energy Systems and Solar Access Requirements):

- A. Any Solar Energy System located on the areas that consist of Prime Farmland or Farmland of Statewide Importance shall not exceed 25% of the area of Prime Farmland or Farmland of Statewide Importance on the parcel.
- B. Solar Energy Systems located on Prime Farmland shall be constructed in accordance with the construction requirements of the New York State Department of Agriculture and Markets.
- C. Solar Energy System owners shall develop, implement, and maintain native vegetation to the extent practicable pursuant to a vegetation management plan by providing native perennial vegetation and foraging habitat beneficial to game birds, songbirds, and pollinators. To the extent practicable, when establishing perennial vegetation and beneficial foraging habitat, the owners shall use native plant species and seed mixes.

APPENDIX A

EVALUATION OF MUNICIPAL LAND USE REGULATIONS

5. Do subdivision regulations include provisions to minimize impacts on farm operations?

[The Town of Hector does not administer local subdivision regulations.]

APPENDIX B

STAKEHOLDER INTERVIEW SUMMARIES

APPENDIX B

STAKEHOLDER INTERVIEW SUMMARIES

Through in-person and phone interviews, agency representatives and other stakeholders identified additional issues and opportunities, provided information for the inventory of existing conditions and evaluation of alternatives, and suggested potential strategies and recommended actions for achieving the goals of this Plan. Stakeholder input from the Schuyler County Soil & Water Conservation District, Finger Lakes Land Trust, and Schuyler County Chamber of Commerce are summarized in this appendix.

JERRY VIGNINI – SOIL & WATER CONSERVATION SERVICE (SWCD) - 2/12/20

Current SWCD Initiatives

- All conservation improvements go through Agricultural Environmental Management (AEM) process. Farms with approved conservation plans are in good position for funding. Grants funded on watershed basis – not by specific type of practice
- Farmers are interested in implementing conservation improvements but it is difficult to raise funds for the local match
- Approx. 20 farm projects per year – e.g., erosion control, waste management
- SWCD installs projects using its own equipment – habitat improvement, stream stabilization
- Recently purchased an interseeder – used to plant 4,000 acres of cover crops/ year
- Economic development program – \$ 1 million funded by NYS for Schuyler County projects such as building barns

Issues/ Concerns

- Dairy and crop prices are down; costs for inputs are up
- Some farms can't afford to cost share 25% for conservation projects
- Climate change impacts – challenging to prepare for unknown events
 - rain, erosion, flooding
 - “spring all year” – can't spread manure
 - Wet fall – can't harvest
- Best practices to increase resiliency include:
 - Soil health practices
 - Cover crops/ buffers
 - Retention ponds
 - Erosion control practices
 - Streambank stabilization, crossings for access to fields
- Many farmers use conservation practices, which has helped improve the water quality of Seneca Lake, a public drinking water supply source. Farmers must also consider their financial bottom line and sustain yields.
- Concern that stricter regulations would impose an economic burden to farmers.

Opportunities

- SWCD has good rate of success in applying for State funding. Statewide, 35% of applications are funded; Schuyler/ Chemung County SWCD's rate is 90%
- Potential to match Federal funds with State grants.

APPENDIX B

STAKEHOLDER INTERVIEW SUMMARIES

FINGER LAKES LAND TRUST (FLLT) – 6/23/20

Current Initiatives

- FLLT works with landowners and funders to obtain permanent conservation easements on farmland easement. In 2014, the FLLT worked with Schuyler County to obtain a grant from the NYS Department of Agriculture & Markets purchase an easement to the 75-acre Argetsinger vineyard. In 2020, the FLLT worked with the Barber farm to obtain a grant through the NYS Dairy Accelerator Program to place a permanent conservation easement on 518 acres.
- FLLT conducts outreach and education to discuss the program with farmers who may be interested.

Issues/ Challenges

- Development of renewable energy poses a threat. The new State siting process removes local control.
- Protection of water quality is important, particularly within the Seneca Lake watershed. Algal blooms threaten the community's quality of life and tourism as well as drinking water quality. It is challenging for farms to obtain sufficient funding to install best management practices
- Farms in Schuyler County have been less competitive in obtaining NYS grants to purchase development rights due to soil types (most of the County's farmland is classified "soils of statewide importance" and not "prime farmland.")

Opportunities

- The NYS Source Water Protection Program (SWPP) offers grants of up to 75% of the cost of purchasing easements to land along streams that flow into public drinking water supplies. Farms would need to maintain a vegetated buffer of 100 feet along these streams.
- Open spaces that farmland provides are a boon to tourism and boost value of neighboring properties.
- To increase competitiveness for NYS purchase of development rights grants, applicants should emphasize conservation benefits of preserving the farmland. For example, the Barber farm will set aside 100 of the 518 acres as forested buffers along waterways and the Montour Falls reservoir.
- Continued communication among community members is important. For example, FLLT worked with the Genesee Land Trust to develop a four-part series on farm planning and other topics.

SCHUYLER COUNTY CHAMBER OF COMMERCE – 2/12/20

- Agri-tourism is a significant aspect of countywide tourism.
- Beverage trails – wine, beer and spirits – offer cooperative marketing.

APPENDIX B

STAKEHOLDER INTERVIEW SUMMARIES

- Finger Lakes Farm Country website markets agri-tourism destinations. The five-county initiative includes a map of U-Pick operations, farm stands and opportunities for direct sales. It also connects consumers with farms interested in hosting visitors