ONONDAGA COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN

PRELIMINARY DRAFT

April 7, 2022

ONONDAGA COUNTY

AGRICULTURE & FARMLAND PROTECTION PLAN

This Agriculture and Farmland Protection Plan was produced with funding assistance from the New York State Department of Agriculture and Markets' Farmland Protection Planning Program and the Onondaga County Agriculture Council. The Syracuse-Onondaga County Planning Agency would also like to thank the Agriculture and Farmland Protection Board for their assistance in guiding the development of this plan:

Onondaga County Agriculture and Farmland Protection Board

Brian Reeves, Chairman
Lee Hudson, Farmer
Mark Tucker, Farmer
Kay Hilsberg, Farmer
Edwin Skeele, Agribusiness Representative
Brian May, Onondaga County Legislature
Scott Winkleman, Agricultural Land Preservation Representative
Craig Dennis, Onondaga County Soil and Water Conservation District
Donald Weber, Onondaga County Real Property Tax Director
Dan Kwasnowski, AICP, Syracuse-Onondaga County Planning Agency
David Skeval, Cornell Cooperative Extension of Onondaga County

Syracuse-Onondaga County Planning Agency

Dan Kwasnowski, AICP, Director
Megan Costa, Assistant Director for County Planning Services

Cornell Cooperative Extension of Onondaga County

David Skeval, Director
Jenny Smith, Agricultural Specialist

Onondaga County Soil & Water Conservation District

Mark Burger, Executive Director

Onondaga County Legislature Staff
Jamie McNamara, Clerk of the Onondaga County Legislature
Melanie Vilardi, Deputy Clerk

Project consultants

Environmental Design & Research, D.P.C
217 Montgomery Street, Suite 1100, Syracuse NY
www.edrdpc.com

George Frantz & Associates
Ithaca, NY

Karen Karp & Partners
1400 Lighthouse Rd, Southold, NY 11971

DRAFT (April 7, 2022)

ONONDAGA COUNTY

AGRICULTURE & FARMLAND PROTECTION PLAN

CONTENTS

ONONDAGA COUNTY

AGRICULTURE & FARMLAND PROTECTION PLAN

EXECUTIVE SUMMARY

An agriculture and farmland protection plan is both a report on the state of agriculture and a framework for protecting farmland and supporting the viability of agriculture throughout the County. Agriculture includes a variety of activities on the land, including the production, preparation, and marketing of crops, livestock, and value-added products as a commercial enterprise and other activities defined in Article 25AA of the New York State Agriculture and Markets Law. This type of plan aims to identify current key issues and opportunities facing agriculture and recommend actionable strategies for protecting farmland and advancing the viability of farming through strategic economic development. This plan highlights the importance of agricultural lands to be protected, provides information on local agriculture and food systems, and documents support for local agricultural enterprises and related food system infrastructure. The planning process itself is an opportunity for community dialogue, education, and action.

COMMUNITY ENGAGEMENT

The Planning Team (composed of SOCPA and Project consultants), with oversight from the AFPB, designed an outreach process to encourage community input into the review and information gathering process through surveys, pop-up events, focus groups, interviews, informational materials (physical flyers and web-based), an interactive website, and a public meeting.

The initial steps of the community engagement were first conducted with municipalities, due to the project commencing during the agricultural growing season. As time progressed and farmers became more available, the Project Team held in-person Pop Up events at events like On Farm Fest and Apple Fest to spread awareness about the projects and solicit input from the public and members of the farming community. Specific stakeholder groups were invited to participate in a series of focus groups and interviews to inform the plan development. The community engagement concluded with an in-person public meeting. More details about the community engagement can be found in the full plan document.

UPDATING THE 1997 PLAN IN 2022

In 2020, under the direction and supervision of the Syracuse-Onondaga County Planning Agency and oversight from the Onondaga County Agriculture and Farmland Protection Board (AFPB), Onondaga County was awarded a County Planning Grant through the NYS Department of Agriculture and Markets (NYSDAM) and began a thorough update of its 1997 Agricultural and Farmland Protection Plan to identify and update information to better reflect current conditions in the agricultural community. A consultant team led by EDR was hired to assist in the revision process in compliance with the NYSDAM planning grant.

Agriculture and farmland protection plans are intended to be "living" and readily usable documents. As decision-making tools, these plans need to be kept current as community needs and local conditions change over time. The 2022 Agriculture and Farmland Protection Plan is an entirely new document and major update from 1997. This plan offers an action-oriented and user-friendly approach, with new sections like the Farm Friendly Toolbox, robust analysis of types of important farmland and their occurrence throughout Onondaga County, and venture proposals to launch projects off the ground following the adoption of this plan.

Today, agriculture remains a significant player in the economy of Onondaga County, particularly in the rural municipalities outside of the City of Syracuse and its suburbs. Beyond the $178 million in direct sales from the 623 farming operations that occur in nearly all reaches of the County, it is estimated that there is another $178 million in indirect benefits (USDA Agricultural Marketing Service & Colorado State University, 2022). These earnings come from farmer and farmworker earnings, purchases at feed and supply stores, and all the other ways that agricultural sales contribute indirectly to local economies. Farming is the primary occupation for half of the County's 1,068 farmers (USDA NASS Census of Agriculture, 2017a).

Agriculture also plays a significant role in the quality of life throughout Onondaga County. The rolling hills, open lands, and agritourism opportunities that characterize the County's rural communities are one of its key aesthetic qualities and community assets. Approximately 30% of the land use in the County is actively used for farming. The location of Onondaga County at the crossroads of New York enables local agriculture to reach markets both locally and beyond. The work of the Onondaga Agricultural Council continues to grow the awareness of agriculture as a part of our local economy through campaigns like the Onondaga Grown initiative.

Farmland protection remains a critical issue in Onondaga County. Since the 1997 report more than 12,000 acres of land have been protected through the Farmland Protection Implementation Grant program, indicating the importance that preserving the local farmland for both the farming and non-farming communities. Farmers have implemented Best Management Practices to protect water quality, and these efforts combined with future efforts will continue to protect the health of drinking water and the natural environment. There are many reasons to celebrate the efforts achieved since the completion of the original 1997 plan. And there is much work ahead to protect farmland while maintaining a viable agricultural economy here in Onondaga County.

NEEDS AND OPPORTUNITIES FACING AGRICULTURE IN ONONDAGA COUNTY

Current conditions and trends regarding the future of agriculture fit into five primary categories. These categories were derived from themes that emerged in the data analysis and community engagement:

AGRICULTURAL ECONOMIC DEVELOPMENT

Agriculture is an important contributor to the economy of Onondaga County, and the legacy of farming resources here in Onondaga County has provided a basis for a stable agricultural industry for generations. Unfortunately, agriculture can be very capital-intensive for individual operations and profit margins can be very tight, impacted by extreme weather patterns and statewide or national policies outside the control of farmers. Farming has been pushed to become highly efficient over the years.

Meanwhile, agriculture is facing great changes to its operations, labor force, and markets. Mid-sized farms are decreasing in number throughout the county, with very large farms increasing in size through consolidation. The number of farm operators is decreasing, as operators age towards retirement and the next generation moves towards non-farming careers. Markets are quickly evolving, with new crops emerging on the market and technology continues to innovate by leaps and bounds. Increasing value-added production opportunities can help existing local farmers offset ever-rising agricultural costs while potentially attracting new farmers to the workforce. Intentional and strategic economic development for agriculture to grow and thrive as a sector is a critical need in Onondaga County.

PROTECTION OF AGRICULTURAL LAND

Protection of farmland is essential to maintaining a viable agricultural economy, as well as enabling the scenic views that characterize Onondaga County. The County has a rich array of agricultural soils, with nearly 70% either federally or statewide important. Over the past 100 years, Onondaga County has lost a significant portion of its original agriculture that occurred on these soils due to development, although this loss has plateaued in recent years. Once development occurs in areas of farmed prime soil, it is very difficult, if not impossible, to restore the soil to its original state.

Fortunately, there are several programs that can pool resources to incentivize the protection of farmland and make it worthwhile to farmers that would otherwise be tempted to develop their land. The challenges lie in providing enough technical assistance and marketing to ensure that farmers know about these options. An additional emerging development pressure for farmland is commercial solar development. Several tools exist to help strike the right balance when it comes to enabling solar development and other forms of renewable energy to address climate change and provide farmers with additional revenues, while still protecting farmland and the food that it provides.

LINKING LOCAL AGRICULTURE TO THE COMMUNITY

A wonderful characteristic of Onondaga County's agriculture is its centralized location and easy access to local markets, which makes it relatively easy for non-farmers to connect with farmers. People are seeking out these experiences more than ever, with increased interest in agritourism experiences whether it's enjoying concerts at Beak and Skiff, attending On Farm Fest, or simply picking fruits or vegetables at one of the many fine U-Pick operations across the County. Additionally, urban agriculture and community gardening have gained in popularity over the past couple of decades, helping to bridge the gap between the County's established farming community and the traditionally non-farming community.

More work is needed, however, to better link the general public's awareness and understanding of local agriculture, as well as attract new community members to local agriculture. In recent years the Onondaga Grown campaign has been launched to promote and celebrate the importance of local agriculture, as well as link local producers to local consumers. Farmers' markets have increased in popularity, along with local farm-to-table restaurants and other food-related enterprises that work to re-localize the food system. Continued effort on this topic has the potential to improve public health by providing food access to are several "food deserts" throughout Onondaga County, where residents do not have easy access to fresh, locally grown produce. It also can enhance the quality of life for all residents participating in local agriculture-related experiences.

LABOR AND THE NEXT GENERATION OF FARMING

When it comes to labor, agriculture both in Onondaga County and across New York State is facing some significant challenges. The agricultural workforce is already in short supply due to an aging farmer population and a shortage of young farmers or new and beginning farmers. This labor shortage will likely be exacerbated by the recent statewide requirement to phase into a 40-hour workweek for farmworkers beginning in January 2024. This recent change has caused concerns from farm operators about balancing the increasing labor costs with the slim profit margins of farms, all while attracting and retaining a quality workforce here in NY. Continued demand for low food prices, technology requirements, and the consequential rising costs of agriculture are attributed to the lack of local labor, low wages for farmworkers, and difficult conditions for farmers and farmworkers. Opportunities lie within regional workforce development in warehouse distribution, drone technology, and other tech industries that may attract new

tech-oriented workers to the agricultural sector. Additionally, there are many ways to support new and beginning farmers, as well as aging farmers, to ensure that the next generation of farmers have the resources they need.

AGRICULTURE AND THE NATURAL ENVIRONMENT

Onondaga County is gifted with plentiful water and productive soils, and for that reason, the County has a robust history of farming. Farmers are the biggest stewards of natural resources in Onondaga County. Despite this intrinsic connection between agriculture and natural resources, more resources and support are needed to equip farmers to balance agriculture with the natural environment. Many incentive-based tools exist to help farmers protect water quality, increase climate resiliency, or address pollinator collapse and invasive species. Protecting flood plains and wetlands can provide supplemental income/benefits to farmers as well as provide community value (e.g., recharging soils, habitat, water quality). Finally, because of the amount of land that agricultural operators work with, they have a unique role in helping to capture carbon and implement renewable energy options, whether it is no-till farming, solar energy production, or capturing methane for heating and electricity. The challenge lies in how to do so without placing added burdens on farmers and keeping farmland in production.

VISION FOR AGRICULTURE IN ONONDAGA COUNTY

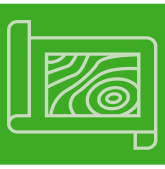
The Vision Statement, found in this Executive Summary and at the heart of the 2022 Agriculture and Farmland Protection Plan, is an articulation of the community's hopes for the future of agriculture and farmland in Onondaga County over the next 20 years. It informs the Agriculture and Farmland Protection Plan and ultimately is a basis for decision-making related to agriculture throughout the County. The Vision Statement results from the contribution of a wide array of community stakeholders, including the AFPB, participants engaged through outreach events and surveys, and discussions with focus groups and Onondaga County farmers and residents. Achieving the community's vision requires the development of planning goals, strategies, and tangible actions supported and embraced by public officials and the community. Therefore, it is important to keep the Vision Statement in mind throughout the 2022 Agriculture and Farmland Protection Plan.

Agriculture in Onondaga County has seen significant changes over the years. Through it all, local agriculture remains a critical part of its economy, food system, and landscape. The County is gifted with highly productive agricultural soils, a legacy of farming operations and know-how, and an environment that supports a highly diverse array of agriculture and opportunities to engage with the local food system. This plan honors the strengths of Onondaga County's agriculture and reflects these strengths in a vision for the future of agriculture throughout the County:

Onondaga County is a dynamic agricultural community of vibrant, resilient, and experienced farm operators and farm-related entrepreneurs who are the stewards of local viable farmland and the food system.

GOALS FOR AGRICULTURE IN ONONDAGA COUNTY

Enhance agriculture-related economic development activities and collaboration to capitalize on emerging markets, technologies, and incentives.



Strategically protect agricultural lands throughout Onondaga County to sustain and improve its vibrant agricultural operations.

Promote the importance of local agriculture and food systems throughout Onondaga County.

Support the next generation of farmers and agricultural entrepreneurs in Onondaga County.

Continue to enhance the relationship between agriculture and the natural environment.

RECOMMENDED ACTIONS

Achieving these goals will require commitment and collaboration between a variety of stakeholders across the County. Recommended actions of the plan include the following, organized by each of the five main goals. Five of these actions have emerged from this planning process as strategic projects to initiate work towards these goals, relating to:

- Value-Added Economic Development
- Agricultural Economic Development Coordination
- Agritourism Support
- Community Greenhouse
- Agricultural Waste Stream Analysis

Other recommendations are listed below according to their corresponding goals.

Enhance agriculture-related economic development activities and collaboration to capitalize on emerging markets, technologies, and incentives.

- Full-time staff to Agricultural Economic Development Coordinator position to spearhead agriculture-related initiatives, partnerships, funding opportunities, and farmland protection.
- Feasibility study for a food hub or agricultural business park for local producers to better link local producers with processing and distribution
- Trainings for producers about resource management, certifications, value-added production, and market development.
- Improve broadband in rural communities to support high-tech ag machinery and communication.
- Train and equip local support agencies to offer agricultural unmanned aerial vehicle (UAV) services to their constituents
- Develop a commercial kitchen to provide startup operations the ability to develop value-added products

Strategically protect agricultural lands throughout Onondaga County to sustain and improve its vibrant agricultural operations.

- Improve capacity and increase funding to protect farmland via various programs and entities like FPIG, USDA, CNY Land Trust, Agricultural Districts, new partners, etc.
- Work with municipal boards and staff to understand the land use tools available to "strike the right balance" for solar development on farmland by directing potential future development on marginal farmland and using solar to improve farm viability
- Establish funds or staffing to provide adequate technical assistance for local land trusts, as well as provide technical guidance for use of the Farm Friendly toolbox.
- Work with municipal boards and staff to update and revise their comprehensive plans and land use regulations to provide better support for agricultural uses.
- Encourage towns to create their own agricultural protection plans that work in coordination with the Onondaga County Agricultural and Farmland Protection Plan.

Promote the importance of local agriculture and food systems throughout Onondaga County.

- Pursue and provide active value-chain coordination to develop a food hub for local producers to better access local consumers and wholesale providers.
- Increase County support for agriculture-related promotional events and marketing, particularly for agritourism (e.g., startup assistance, social media help, siting, and logistics).
- Promote public awareness of local agriculture through the Onondaga Agricultural Council program via the Onondaga Grown/Buy Local Campaign.
- Update Onondaga Grown mapper so that local producers, distributors, processors, food-related businesses, and customers can be organized by product throughout Onondaga County.
- Grow OnFarm Fest programming to serve as a well-known opportunity to educate residents of Onondaga County's agriculture

Support the next generation of farmers and agricultural entrepreneurs in Onondaga County.

- Develop an agriculturally oriented year-round community greenhouse to host agritourism events/ educational programming
- Develop a New Farmer Program that continues to support and grow incubator programs that provide land and other resources to serve the next generation of farmers or newly arrived immigrants familiar with farming; promote manager-in-training programs through mentorship and provide technical assistance for programs that link aspiring farmers with landowners who want to lease or sell their land, or those that are interested in accessing loan programs.
- Develop farm specialty labor pool by creating a program of trainings for high-tech agriculture (or link to existing programs)
- Provide training for agri-service or land use planning professionals, along with others from the farming community to support succession planning and direct farmers to appropriate stress-related support services.

Continue to enhance the relationship between agriculture and the natural environment.

- Develop a strategy to develop ways that agriculture can help decrease overall waste, for example, renewable natural gas projects for dairy waste (see Goal 1) and promoting paper/plastic recycling and reuse by working with OCCRA.
- Increasing funding available to evaluate causal pathways for water quality issues and assist farmers in implementing strategic water quality management practices. In addition, encourage flexibility in the funding mechanism to increase participation.
- Increase technical assistance programming with a focus on climate resiliency (e.g., flooding and drought), stormwater management, and other environmental management issues, like runoff nutrients, farmyard management, silage nutrient management, fertilizer application calibration, etc.
- Increase funding and technical; assistance to participate in programs that protect soil health.

INTRODUCTION

IMPORTANCE OF AGRICULTURE TO ONONDAGA COUNTY

Agriculture is a significant player in the economy of Onondaga County, particularly in the rural municipalities outside of the City of Syracuse and its suburbs. Beyond the $178 million in direct sales from the 623 farming operations that occur in nearly all reaches of the County, it is estimated that there is another $178 million in indirect benefits (USDA Agricultural Marketing Service & Colorado State University, 2022). These earnings come from farmer and farmworker earnings, purchases at feed and supply stores, and all the other ways that agricultural sales contribute indirectly to local economies

Agriculture also plays a significant role in the quality of life throughout Onondaga County. The rolling hills, open lands, and agritourism opportunities that characterize the County's rural communities are one of its key aesthetic qualities and community assets. Approximately 30% of the land use in the County is actively used for farming. Farming is the primary occupation for half of the County's 1,068 farmers (USDA NASS Census of Agriculture, 2017a).

Because agriculture has been a fixture of both the landscape and economy throughout the history of Onondaga County, it is easy to assume that agriculture is doing just fine. However, agriculture has become increasingly difficult and threatened here in Onondaga County, due to a variety of factors ranging from a decreasing population of farmers, a loss of mid-sized farms, and other pressures that remove land from production. Fortunately, Onondaga County is committed to focusing on agriculture and supporting the value that it brings to its residents, economy, landscapes, and natural environment.

ACHIEVEMENTS OF THE 1997 AGRICULTURE AND FARMLAND PROTECTION PLAN

Originally adopted in 1997, the first Onondaga County Agricultural and Farmland Protection Plan promoted three main goals for the local agricultural sector: 1) enhance the viability of agriculture in Onondaga County, 2) protect farmland resources, and 3) promote the economic and social importance of the agricultural industry in Onondaga County. Since the adoption of the original Onondaga County Agricultural and Farmland Protection Plan in 1997, significant progress has been made to advance the goals of the plan.

The plan was created to be used by individual farmers, farmer groups, and all levels of elected officials as a guide for the development of local planning and land-use decisions to support the viability of the agricultural industry in Onondaga County. Seven recommendations were defined at the County and municipal levels, with each accompanied by a range of actions. There has been significant progress on each of the following recommendations since 1997, and the implementation of specific actions is found in Appendix A.

Protect important farmland

Establishment and continued pursuit of NYS Department of Agriculture & Markets Farmland Protection Implementation Grants (FPIG) funding opportunities to protect over 12,000 acres of farmland in Onondaga County, through the purchase of conservation easements on agricultural lands. Creation and adoption of the Town of LaFayette Agriculture & Farmland Protection Plan.

Reduce property taxes on farmland

Provided municipalities with education on fiscal impacts of land development patterns, including the cost of community service data for residential and agricultural/open spaces land uses. Increased local adoption of full value land assessment policies. Provided opportunities for farmer education on the development of estate plans and business plans to offset tax burdens.

Promote the agricultural industry

Establishment of the Onondaga County Agricultural Council to promote and preserve Onondaga County's agricultural economy, promote local food, and connections between the County's urban and rural communities. Through the Agricultural Council, creation of the Onondaga Grown buy local campaign and marketing program to recognize and market the availability and benefits of local food to the CNY region.

Promote public awareness of agriculture

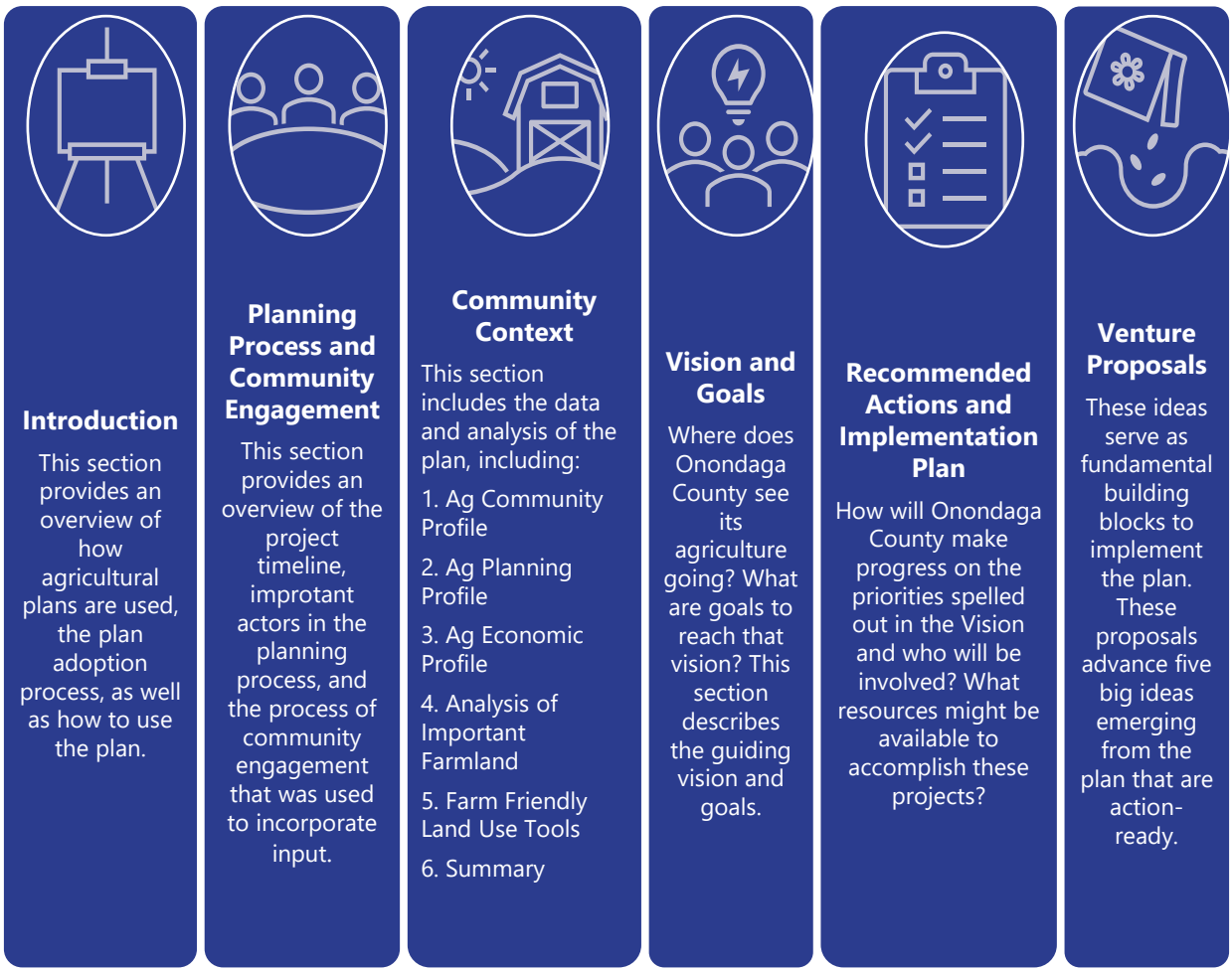
CCE Onondaga public awareness events, including the Onondaga Grown Campaign and OnFarm Fest; Recycling Agricultural Plastics Project (RAPP); the Beginning Farmer and Rancher Development Program developed in partnership with Refugee and Immigrant Self-Empowerment (RISE); and Annie's Project. Establishment of an annual OnFarm Fest, which now attracts over 10,000 visitors each year, to welcome residents to visit a sampling of Onondaga County Farms, meet local farmers and explore how local food is produced.

Provide technical support for agriculture

The Onondaga County Soil & Water Conservation District secures millions of dollars for farms across Onondaga County and the Skaneateles Lake Watershed; Grow NY Program has been established as a business competition and collaborative entity to grow and fund agricultural innovation; Creation of the NYS Center of Excellence for Food and Agriculture at Cornell (AgriTech), to catalyze business development in the agricultural sector and provide needed services to foster growth.

HOW TO USE THIS PLAN

Agriculture and farmland protection plans are intended to be flexible and representative of changing needs, conditions, and emerging trends facing agriculture. The vision, goals, and actions outlined in this document are intended to guide future local decision-making processes. As a document, this plan will serve as the foundation – the character, values, and priorities – for Onondaga County and its agriculture. The following diagram lays out the components of the plan, starting with the introduction and ending with recommended actions to initiate progress towards the vision and goals of agriculture in Onondaga County.



WHAT IS AN AGRICULTURE AND FARMLAND PROTECTION PLAN?

An Agriculture and Farmland Protection Plan is a decision-making tool to help governments focus on the future of agriculture. These plans recommend policies and projects to maintain the economic viability of the agricultural industry and its supporting land base. An agricultural plan identifies the vision, goals, and recommended actions for the future decision-making regarding agriculture that will occur throughout the County. It includes a thorough inventory and analysis of current data showing agricultural trends and issues, community resources, and needs and opportunities facing agriculture and farmland. The purpose of this Agriculture and Farmland Protection Plan is to reiterate commitment to maintaining a viable agricultural sector and to identify opportunities for County agencies and their local and regional partners to support the growth of farm businesses.

STATUTORY AUTHORITY AND PLAN ADOPTION, REVIEW, AND MONITORING

By the provisions of Article 25AA of the NYS Agriculture and Markets Law, the Onondaga County Agriculture and Farmland Protection Board (AFPB) was established by the County Legislature in 1971. The AFPB is charged by statute with a variety of duties intended to protect farmland and agricultural activity in the County. Among these duties is the development, review, and monitoring of an Agriculture and Farmland Protection Plan for Onondaga County.

This Agriculture and Farmland Protection Plan has been created at the request of and with oversight by the Onondaga County Agriculture & Farmland Protection Board. Upon completion of the plan, the Board formally submits the plan to the Onondaga County Legislature for public hearing and adoption. Upon local adoption, the plan is forwarded to the New York State Department of Agriculture & Markets for final approval.

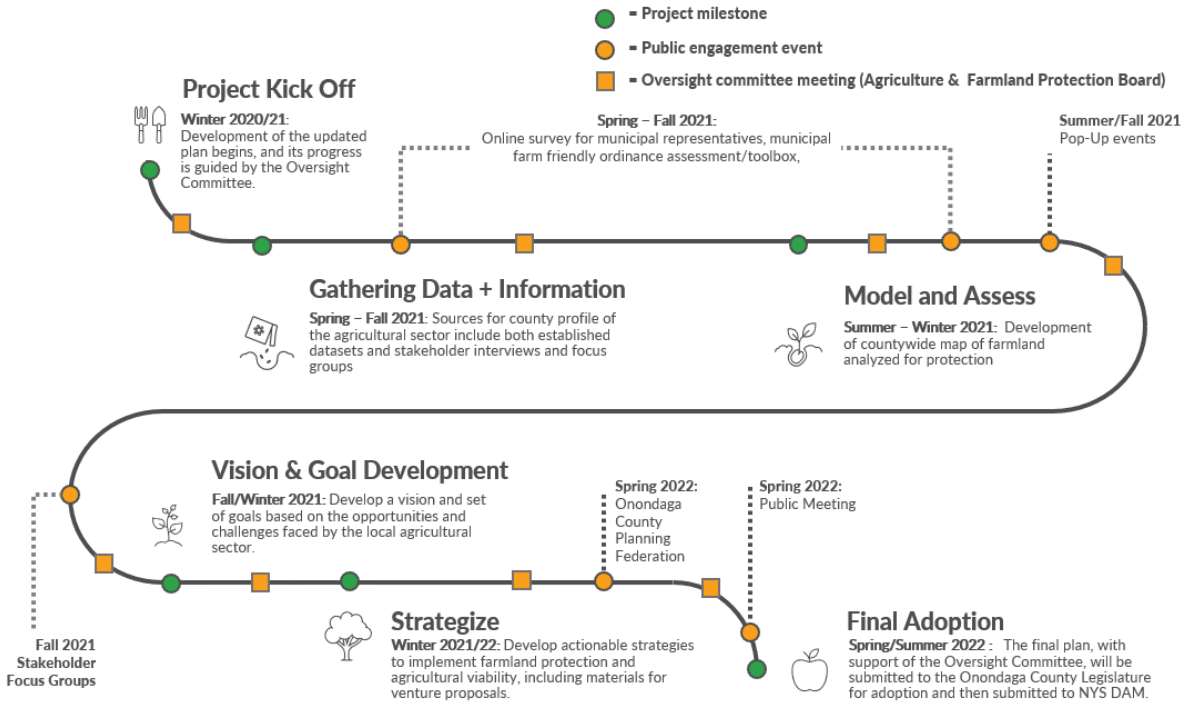
The Plan is to be considered a living and evolving document, to be updated as conditions change, but generally no longer than every 10 years. The Agriculture & Farmland Protection Board is tasked with regularly reviewing the plan to assess its effectiveness and need for updates. As a result of the global COVID pandemic, the development period for this plan was a remarkable time for agriculture and the local food system. Therefore, conditions and priorities will undoubtedly continue to change.

Funding for the development of this plan is made possible by the NYS Department of Agriculture and Markets by Article 25AA of the NYS Agriculture and Markets Law. Funding is derived primarily from the New York State Environmental Protection Fund and made available by the Farmland Protection Planning Grants Program through the NYS Department of Agriculture and Markets. Additionally, significant local contributions were provided with financial contributions from the Agricultural Council, and in-kind services provided by Syracuse Onondaga County Planning Agency, CCE Onondaga, and Onondaga County Soil and Water Conservation District.

PLANNING PROCESS AND COMMUNITY ENGAGEMENT

The Onondaga County Agriculture and Farmland Protection Plan was developed through a collaborative, inclusive, and robust community engagement process. A Community Engagement Plan (CEP) following the timeline below was created to guide the public participation process, outlining detailed strategies that would provide stakeholders and members of the public with the opportunity to provide input on relevant issues, challenges, and needs associated with the agricultural community and agriculture. A summary of the planning process and community engagement activities with the full set of findings from the community engagement is provided in Appendix E.

Figure 1. Planning Process and Project Timeline



OVERSIGHT COMMITTEE

The Onondaga County Agriculture and Farmland Protection Board (AFPB) served as the oversight committee for the plan. The Board met eight times throughout the development of the plan to provide guidance and feedback on the planning process. The Board is composed of farmers, farm businesses, and local representatives from the Onondaga County Legislature, Onondaga County Soil and Water Conservation District, Cornell Cooperative Extension, Syracuse-Onondaga County Planning Agency, Onondaga County Real Property Services, and natural resource protection.

GENERAL PUBLIC

Outreach materials were created to advertise the plan and solicit participation from farmers and local governments on their experiences and perspectives, while also providing information for the public to learn about the value of and ways to support agriculture in Onondaga County. The flyer contained a link and QR code to the project website (agriculture.ongov.net). The project website contained information regarding the need for the plan; the members of the project team; the Farm Friendly Municipal Toolbox; municipal resources; a project timeline; the community engagement plan; and background documents. The website also offered an online sign-up for an email list to stay informed about Onondaga County agriculture programs and events.

Pop-up events were held to engage and gather ideas from local community members who are neighbors to the agricultural community or who are actively engaged with the agricultural community. Specifically, the outreach included an introduction of the plan's purpose and basic facts about farming in the County, solicitation of written and verbal input through simple activities, and encouragement of website visits and participation in public meetings. Pop-up events, or interactive displays at public events, were held at On Farm Fest (September 2021), the Regional Market (September 2021), and the LaFayette Apple Festival (October 2021).

[insert details about public meeting to be held in April 2022 forthcoming]

MUNICIPALITIES

Municipal representatives were engaged over the Summer of 2021 through an online survey and online meetings related to the Farm Friendly Toolbox and Municipal Assessments. The municipal survey was created to provide an opportunity through which representatives of Onondaga County municipalities could provide specific input regarding the state of agriculture in their municipalities, issues or opportunities, and topics of local interest related to agriculture. Survey respondents reported several noticeable changes to agriculture in recent years, with the most noticeable changes resulting in a decrease in smaller/mid-sized farms that are getting purchased by larger farms. There was also a noticeable increase in agritourism over recent years. The top benefits of agriculture for municipalities, as reported by survey respondents, included low demands on municipal services and open space and views that increased adjacent land values. The top challenges facing agriculture include residential encroachment, labor shortages, and retirement/succession planning. Survey respondents reported manure application/storage/transportation as the number one conflict between farmers and non-farmers, followed by urban sprawl and acreage requirements for animals.

Municipalities were also invited to participate in an assessment of their local plans and ordinances to understand their "Farm Friendliness", or how well their local regulations and planning programs respond to the needs of the agricultural community. The Planning Team worked with four volunteer municipalities – the Towns of Cicero, Manlius, LaFayette, and Onondaga - to undergo a "Farm Friendly Assessment" of their planning documents, local regulations, and planning programs related to agriculture. The process culminated in an individualized assessment provided to each participating municipality, as well as a general "Farm Friendly Toolbox" for all municipalities. The Toolbox is posted on the County's agriculture.ongov.net website and includes a recorded webinar held for municipal representatives as part of the project. More information on the Farm-Friendly Toolbox may be found later in the plan and in Appendix B. Finally, municipalities were informed of the plan's progress and relationship to the Onondaga County Comprehensive Plan (PlanON) at a seminar at the Onondaga County Planning Federation Conference held in March 2022. Municipal representatives that participated in the seminar were engaged in discussion about agricultural issues and initiatives that they saw occurring in their communities.

STAKEHOLDER FOCUS GROUPS AND INTERVIEWS

The Project Team facilitated a series of targeted Focus Group meetings with key stakeholders in the following topical areas:

- Farm Operators
- Agritourism
- Economic Development and Food Systems
- Natural Resources

These stakeholder gatherings provided an opportunity for dialogue among attendees regarding the challenges and opportunities facing Onondaga County agriculture and farmland, and to establish important context and perspective around future alternatives. Several individual meetings and discussions were also held with select stakeholders throughout the planning process.

AGRICULTURAL COMMUNITY PROFILE

This section identifies existing conditions and trends facing the farming community, including those related to demographics, the natural environment, Onondaga County's food system, land use, and land-use change, related planning efforts, policies, and programs, and climate change.

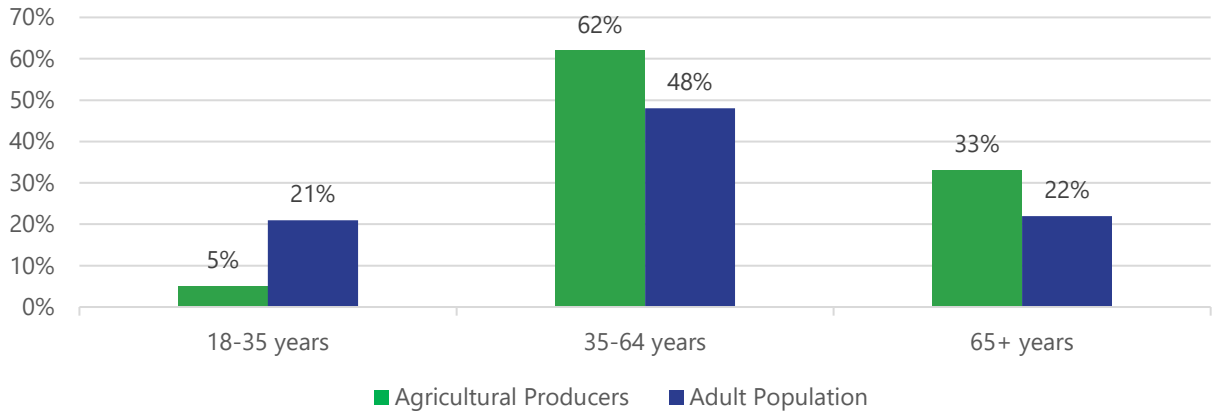
DEMOGRAPHIC OVERVIEW

Farmers are a small but fundamental portion of Onondaga County's population. According to the 2017 USDA Census of Agriculture, Onondaga County has a total of 1,068 agricultural producers or people involved in making decisions for a farm. Of these producers, USDA estimates there are 533 producers in the County whose primary occupation is farming (USDA NASS, 2017a). These producers operate 623 farming operations, averaging 258 acres per operation (USDA NASS, 2017a). See the Economic Profile for more information on operations This section compares the age, gender, and race/ethnicity of agricultural producers against the general population in Onondaga County.

AGE

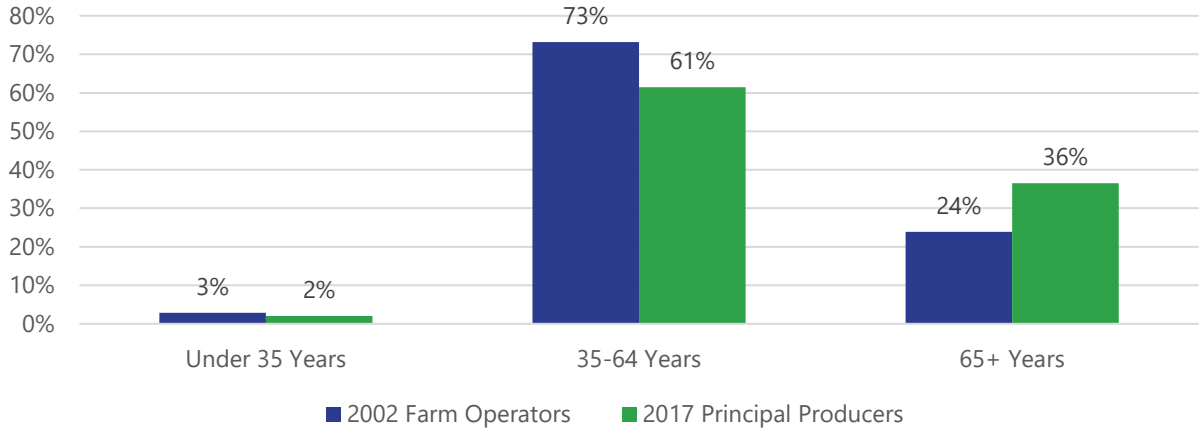
Agricultural producers in Onondaga County tend to be older than the adult population of Onondaga County. Nearly one-third (32.9%) of agricultural producers are 65 years or older, which is higher than the adult population of Onondaga County, where 22% of the population is 65 years or older (USDA NASS, 2017a; US Census, 2019). Additionally, the low percentage of agricultural producers under the age of 35 indicates a potential future shortage in the agricultural workforce as older producers age out of the workforce. This raises concerns for farm succession and the future leadership of farms; an issue facing farmers in Onondaga County that follows statewide, national, and even international trends (USDA Census of Agriculture 2017a; Henriques 2019). Young people are increasingly seeking work in urban areas and non-agricultural sectors. Without a new generation to take on the job, food production becomes uncertain.

Figure 2: Age distribution of agricultural producers and general adult population in Onondaga County



Source: USDA NASS, 2017a and ACS 1-Year Estimates (U.S. Census Bureau, 2019). Table S0101.Note: For comparison, US Census data represents ages 18-35. The 2017 Census of Agriculture defines a producer as someone involved in making decisions for the farm, and young producers as those ages 35 or younger. It is assumed that these young producers are primarily adults over the age of 18.

Figure 3: Age distribution change of operators & principal producers in Onondaga County



Source: USDA NASS, Agricultural Census from 2002 and 2017. Note the change in terminology between 2002 and 2017; these two terms are comparing the same demographic groups. Before 2017, operator was used to refer to the person who runs the farm. The 2017 Agricultural Census expanded the metric of farmers (i.e., "operators") to become "producers," which included all those involved in farm decision making. This could include up to 4 producers per operation). Principal producers, however, are the primary person involved in decision making. Therefore they are comparable to prior Ag Census metrics.

Following national trends, the average age of operators continues to increase as fewer young people enter the occupation. Over recent years, there are larger numbers of older operators, while the share of young farmers in the agricultural workforce has remained relatively unchanged since 2002 when it was already a very small portion of the farming community (see Figure 3). Young producers are defined as 35 years or younger by the US Department of Agriculture. Young producers are less likely to be operators/principal producers; farms with young producers represent just 8% of all farms in the County and less than half of those farms have a young producer as the principal producer. This is consistent with state and national trends, which have 11.5% and 9% of their producer population being under the age of 35 as illustrated in Figure 4.

Figure 4: Farms with young producers

	Producers	Farms	Land in farms (acres)
Onondaga County	1,068	623	160,717
All farms with a young producer	63	50	27,409
Farms with a young principal producer	20	18	12,329
New York State	58,870	33,438	6,866,171
All farms with a young producer	6,718	4,853	1,202,099
Farms with a young principal producer	3,925	3,307	627,350
United States	3,399,834	2,042,220	900,217,576
All farms with a young producer	321,261	240,121	114,588,706
Farms with a young principal producer	208,462	174,944	25,844,296

Source: 2017 USDA NASS Census of Agriculture Young Producers in US and NYS, 2017 USDA NASS Census of Agriculture County Profile: Onondaga County. Notes: Per the USDA NASS Census of Agriculture, a farm is any place from which $1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the year.

NEW AND BEGINNING FARMERS

New and beginning farmers are those who have spent 10 years or less on any farm. Typically, new and beginning farmers are younger than the average farmer and, like young producers, have smaller farm sizes with lower values of production (USDA NASS2019). However, it is important to note that they are not exclusively young people and may include people of any age who decide to enter into farming. The average age nationally for new and beginning farmers is 46 years old (USDA NASS, 2017a).

See Figure 5 for an overview of how Onondaga County compares to New York State and the United States when it comes to new and beginning farmers. The percentage of new and beginning farmers in Onondaga County (24%) is slightly lower than in New York State (26%) and the U.S. as a whole (27%). Farms with new and beginning producers represent just one-quarter of all farms in Onondaga County. The average size of a farm with new and beginning producers is 120 acres smaller than the national average of 441 acres (Abbott, 2019).

Figure 5: Farms with new and beginning producers

	Producers	Farms	Land in farms (acres)
Onondaga County	1,068	623	160,717
All Farms with a new and beginning producer	252	175	43,240
Farms with a new and beginning principal producer	162	129	19,525
New York State	58,870	33,438	6,866,171
All Farms with a new and beginning producer	15,602	10,089	1,605,239
Farms with a new and beginning principal producer	10,970	8,406	1,080,501
United States	3,399,834	2,042,220	900,217,576
All Farms with a new and beginning producer	908,274	597,337	193,405,614
Farms with a new and beginning principal producer	674,940	516,235	140,687,442

Sources: 2017 USDA NASS Census of Agriculture New and Beginning Producers in US and NYS, 2017 USDA NASS Census of Agriculture County Profile: Onondaga County.

GENDER

In Onondaga County, like across the US, females are underrepresented as agricultural producers, with just over one third (36%) of all producers being female (USDA NASS 2017b). These county rates mirror the national rates of female producers. The United States had 1.2 million female producers in 2017, which also accounted for 36% of the total producers. Female producers tend to be slightly younger on average than male producers (57.1 years versus 57.7 years in 2017) and are more likely to be new and beginning farmers (USDA NASS, 2017b).

Figure 6: Farms with female producers

	Farms	Number of Producers	Land in farms (acres)
Onondaga County	623	1,068	160,717
All farms with a female producer	357	395	51,254
Farms with a female principal producer	247	258	23,477
United States	2,042,220	3,399,834	900,217,576
All farms with a female producer	1,139,675	1,227,461	387,892,663
Farms with a female principal producer	766,474	798,500	238,157,861

Source: 2017 USDA NASS Census of Agriculture Female Producers in US and Onondaga County. Note: The 2017 Census of Agriculture revised the demographic data collected to better capture the contributions of all persons involved in agricultural production. In response to detailed questions about farm decision making, more farms reported multiple individuals involved in farm operations. As a result of the new approach to counting producers, the total number of U.S.

female producers increased by 27%. The number of farms with female producers increased by 23%. Caution should be used when working with comparisons until more consistently measured data is released (Pilgeram, et al., 2020).

RACE/ETHNICITY

Non-white individuals and individuals of Hispanic/Latino/Spanish origin are underrepresented within the agricultural producer population when compared with the rest of Onondaga County. Onondaga County's agricultural producers are predominately white (99.8% of all agricultural producers). Just 0.2% of agricultural producers identify as more than one race, and no agricultural producers identify with a single racial group other than white. In terms of ethnicity, just 0.5% of agricultural producers identify as individuals of Hispanic/Latino/Spanish origin. This compares with a more diverse overall County population, of which 79.9% identify as white, 11.2% identify as Black or African American, 4.7% identify as individuals of Hispanic/Latino/Spanish origin, 3.9% identify as Asian, 3.4% identify as more than one race, and 0.5% identify as American Indian/Alaska Native (US Census, 2017). The current lack of racial and ethnic diversity in farming is likely due to the historic and continuing tradition of farms staying within families from generations prior, starting from when Onondaga County property owners were not as diverse as they are today. It is notable, however, that a majority of the farmworker population, not counted in the USDA NASS Agricultural Census as "agricultural producers", is of Hispanic/Latino/Spanish origin.

NATURAL RESOURCES

Abundant natural resources are the foundation for productive agriculture in Onondaga County. Plentiful precipitation, surface water, and groundwaters complement the County's excellent soil base. Nearby Lake Ontario and the Finger Lakes provide a buffer to seasonal temperature extremes and extend the growing season for local farmers. Despite the abundance of natural resources in the area, there are strains on natural resources from both agriculture as well as other types of development. Strains on natural resources can in turn harm agricultural operations. For example, decreasing prime soil availability or declines in pollinator populations weaken overall agricultural productivity. Fortunately, there are several avenues to practice agriculture and promote development in a way that is balanced with the protection of natural resources. In fact, many farms in the region operate in this manner.

IMPORTANT FARMLAND SOILS

Soil characteristics directly influence the distribution of farmland across the County's landscape. Map 1 shows the distribution of important soils, including prime farmland, within Onondaga County. The County has many soil types considered to be agriculturally important, including limestone soils on glacial till over undulating to rolling terrain, limestone soils on glacial lake sediments over level to undulating terrain in the northernmost regions, alluvial soils in valley bottoms through much of the southern and central regions, and some deep acid soils on glacial till over hilly terrain in the south-central border region.

Map 1. Important Farmland Soils in Onondaga County

Source: 2021 Soil Survey Geographic (SSURGO) Database, USDA Natural Resources Conservation Service

Young, acidic soils are found throughout much of the County. Prime soils are generally deeper, well-drained (but not dry) and feature a combination of biophysical and chemical properties (e.g., acidity, alkalinity, sodium content, permeability) that are most conducive to the production of food, feed, forage, and fiber. Many upland soils are considered "soils of statewide importance", indicating that they can be farmed economically with proper care and management. However, these soils are generally shallower and more prone to drying than their counterparts (i.e., prime soils); meaning that they are riskier and more expensive for farmers to work with and profit from when compared to prime farmland and unique farmland Nearly seventy percent of the County's total land area has been classified by the USDA Soil Conservation Service as Important Farmland Soil. Three farmland categories are included in this classification. They are Prime Farmland, Farmland of Statewide Importance, and Prime Farmland if Drained. Maps contained in the Analysis of Important Farmland show the countywide distribution of Important Farmland Soils. The countywide categorical soil breakdown is outlined in Figure 7.

- **Prime soils:** These soils are generally deeper, well-drained (but not dry) and feature a combination of biophysical and chemical properties (e.g., acidity, alkalinity, sodium content, permeability) that are most conducive to the production of food, feed, forage, and fiber. It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops. In general, the characteristics of prime farmland soils include adequate moisture and drainage, adequate soil depth and texture, are not susceptible to erosion or flooding, and sustain high yield production with minimal fertilizer and energy requirements.
- **Farmland of Statewide Importance:** Many upland soils are considered "soils of statewide importance", indicating that they can be farmed economically with proper care and management. These soils produce fair to good yields of crops when treated and managed according to sound agricultural practices. These farmlands are important to the state to produce food, feed, fiber, forage, and oilseed crops. Under favorable conditions, these lands can produce yields as high as those of prime farmland. However, these soils are generally shallower and more prone to drying than their counterparts (i.e., prime soils); meaning that they are riskier and more expensive for farmers to work with and profit from when compared to prime farmland and unique farmland
- **Prime Farmland if Drained:** These soils have the same characteristics as prime farmland, apart from the depth to water table. This can result in limitations to their use unless properly drained.

Figure 7. Important Farmland Soil Types

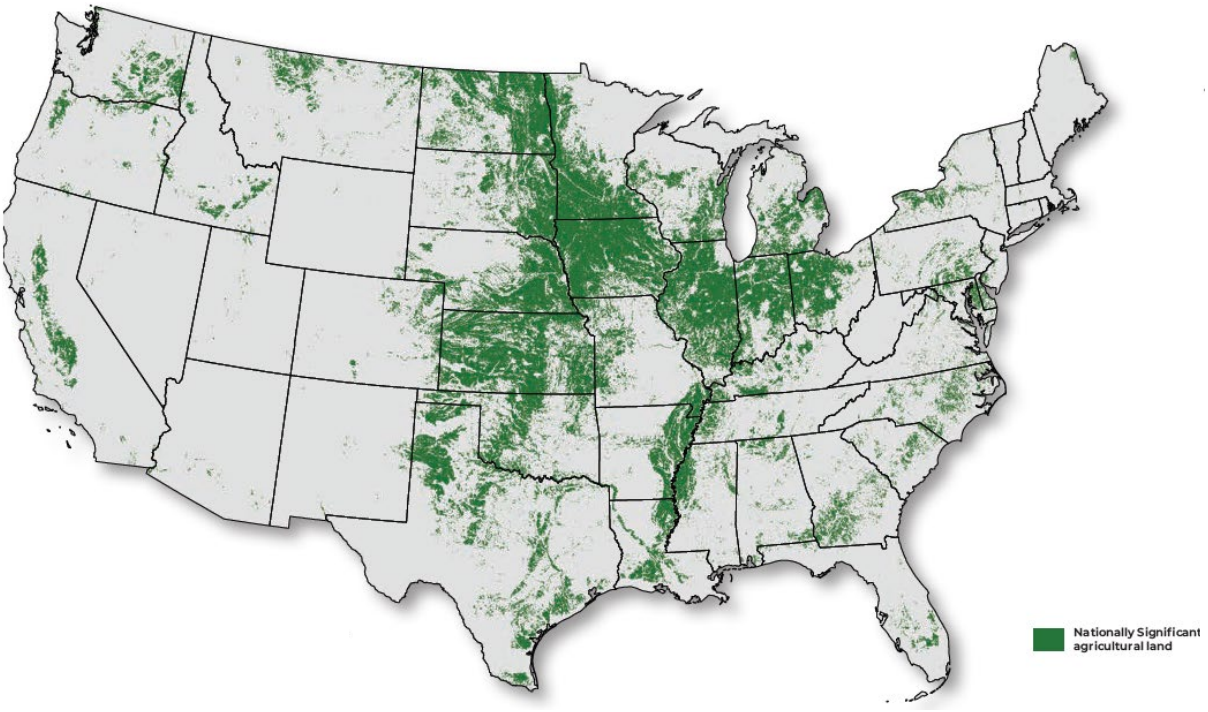
Important Farmland Soil Types	% of Onondaga County Land Area	
Onondaga County	**515,161**	**100%**
Prime Farmland	186,529	36%
Farmland of Statewide Importance	106,412	21%
Prime Farmland if Drained	61,664	12%
Total Important Soils	**354,606**	**69%**

Source: NRCS SSURGO Soil Data, 2020

Protection of prime soils is critical due to the recent increase in development demand from commercial-scale solar as well as the continued pressure from other residential and commercial development. Once development occurs on areas of farmed prime soil, it is very difficult to restore the soil to its original state.

The United States is home to 10% of the planet's arable soils, more than any other country on Earth (American Farmland Trust, 2020a). Despite this relative wealth, only 18% of the continental US is Nationally Significant farmland, meaning that it is in the top 39% of the most productive, versatile, and resilient farmland in the US (American Farmland Trust, 2020a). Onondaga County is fortunate to have some of these rich soil types (see Figure 8). It is vitally important to protect land that is best suited for intensive food and crop production as global demands for food production are colliding with the environmental impacts of eroding soils, declining aquifers, and extreme weather events (American Farmland Trust, 2020a). Large-scale solar development is also competing with these lands, both locally in Onondaga County, and across the nation.

Figure 8. Nationally Significant Agricultural Land



Source: American Farmland Trust, 2020a (used with permission). Note: Nationally Significant agricultural land, which has excellent productivity, versatility, and resiliency, is best suited to intensive food and other crop production, with few environmental limitations.

WATERSHEDS

Onondaga County is composed of six main watersheds: Onondaga Lake, Oneida Lake/River, Tioughnioga River, Seneca River, Skaneateles Lake, and Otisco Lake. Of these watersheds, Skaneateles Lake and Otisco Lake are used as a public drinking water supply. More detailed information about the specific locations of these watersheds is found in the Analysis of Important Farmland Chapter). These watersheds include many important natural resources that provide ecological services for both the agricultural and non-agricultural communities (e.g., private residences and recreationalists), including irrigation water, drinking water,

recreational opportunities, and scenic vistas. It is important to acknowledge the interconnectedness between these ecological services and the quality of the natural resources.

One of the critical ecological services provided by these watersheds is clean potable water sources. Agriculture is the predominant land use in the Onondaga County drinking water source watersheds. As such, agriculture tends to come under suspicion when there are water quality concerns (e.g., harmful algal blooms or HABs). However, agriculture is just one of the several factors that contribute to water quality, and other activities such as septic systems and eroding streambanks in the watershed need to be considered. It is worth noting that HABs also occur in lakes with no agriculture (e.g., Lake Placid in the Adirondacks), as well as forested lakes with no development along the lakeshore (Hemlock Lake, a small Finger Lake surrounded by state forest).

Onondaga County agriculture, like in many counties throughout the state, needs to keep a constant focus on the implementation of best practices to protect water quality in these irreplaceable watersheds. As new farming techniques and programs become available, it is important they are assessed for their suitability to protect and enhance the watershed health of specific waterbodies.

WETLANDS

The presence of wetland areas within agricultural parcels benefits countywide resiliency due to the increased absorption of runoff, maintenance and protection of water quality, and diminished soil erosion in flat wetland areas. Preserving wetlands also can provide advantages for farms. While wetlands themselves are not used for agricultural production, they can greatly benefit farmers by improving water quality for livestock and irrigation and by providing insect-eating bird and pollinator habitats that benefit cropland. Wetlands can also provide important supplemental income for farmers through wetland protection incentive programs, like the Conservation Reserve Program (CRP) through the United States Department of Agriculture National Resources Conservation Service (USDA NRCS), one of the largest private-land conservation programs in the United States. More detailed information about the specific locations of wetlands and their occurrence on farmland is found in the Farmland Analysis section.

FLOODPLAINS

Floodplains are land areas susceptible to being inundated by floodwaters from any sourced. The use of floodplains in agriculture allows the land to continue providing beneficial functions to society, including diminished flood velocities, runoff filtration, and habitat protection for diverse plant and animal species. Floodplains also help to "recharge" productive soils in the County; some of the productive lands have benefited from periodic flooding spanning millennia. These productive areas occur in or adjacent to floodplains and include places like the Seneca River corridor in Lysander and Van Buren, in the Tully Valley, and along Butternut Creek in Fabius and LaFayette. More detailed information about the specific locations of floodplains, as well as the locations of productive soils is found in the Farmland Analysis. section

STEEP SLOPES

Steep slopes are areas with significant topographic changes of a 15% gradient or more. They occur throughout the southern half of Onondaga County, forming majestic vistas such as Morgan Hill in the Town of Fabius, Bare Mountain and Mason Hill in the Town of LaFayette, Bennett Hollow in the Towns of Tully and Spafford, and the Onondaga Creek/Ninemile Creek corridors in the towns of Marcellus and Onondaga. Proper management of steeply sloped areas can protect against runoff pollution, soil loss/sedimentation of waterways, and other erosion issues that decrease resiliency. Steep slopes can also be important in defining

scenic landscapes, and thereby important for agritourism development as well. Detailed information about the specific locations of steep slopes is found in the Farmland Analysis section.

IMPACTS OF CLIMATE CHANGE

Climate change is impacting New York State's agricultural sector.[1] With increased temperatures and fluctuations in extreme wet and dry seasons and events, agriculture across the state faces a range of vulnerabilities (see Figure 8).

Figure 9: Impacts of climate change to agriculture in New York State

Climate Impact	Anticipated Vulnerabilities to Agriculture in New York State
Temperature Changes	• Apple trees may not receive the number of winter chilling hours required to produce fruit • Maple sap flow may shift to earlier in the year, even starting in December • Increasing heat stress days (above 90°F) may stress livestock and some crops • More pest pressure from insects, diseases, and weeds may harm crops and cause farms to increase pesticide use • New crops could become more viable, but crop transitions may be costly
Precipitation Changes	• Increased river flooding, due to increased precipitation, is likely to cause soil erosion, soil loss, and crop damage • Wetter springs may delay planting for crops and reduce yields • Drier summers and intermittent droughts may strain irrigation water supplies, stress crops, and delay harvests
Extreme Weather	• Extreme storms may cause catastrophic damage to crop and fields, farm buildings, equipment, and drainage systems • Floodwaters may spread invasive plants • Heavy rainfall is likely to wash away fertile soils and damage water resources

Source: New York Climate Change Science Clearinghouse, 2021

There are several on-farm adaptation strategies that local farmers may consider as climate impacts are felt locally, including livestock diet and feeding management, use of fans, sprinklers, and other cooling systems for dairy barns, shifting planting dates, diversification of crop varieties, and freeze and frost protection for perennial fruit crops. Other support tools for farm operations to implement climate adaptation and resiliency strategies include:

- Locally available design and planning assistance
- Disaster-risk management and insurance
- Financial assistance
- Policy and regulatory decisions

Although climate change is a significant concern for agriculture, it may also bring new opportunities for agriculture, including new crop varieties and new markets to producer renewable energy options, such as biomass fuel crops or other forms of agriculturally friendly renewable energy, like small scale solar or wind for on-farm use (New York Climate Change Science Clearinghouse, 2021). There are several types of biomass

[1]),.

energy for agricultural operations to consider, including agricultural crop or animal wastes (such as dairy manure), dedicated energy crops and trees, and other types of crops. One example of dedicated energy crops is willow.[2] More information about biomass and agriculture in New York State are found at https://www.nyserda.ny.gov/Researchers-and-Policymakers/Biomass.

Agriculture and food production are responsible for approximately a third of global greenhouse gas emissions, the agricultural sector is critically important in addressing climate change (United Nations Food and Agriculture Organization, 2021). It is notable, however, that this is a share that is gradually declining - it was 44 percent in 1990 - even as food systems emissions kept increasing in absolute amounts. There are several agricultural technologies that have been utilized locally and across the world that are known to reduce the current output of greenhouse gas emissions, while increasing efficiency of farming operations. These strategies to further reduce greenhouse gas emissions caused by agriculture include:

- Precision farming (e.g., digital technology to apply lime and nutrients fertilizer more efficiently)
- No-till farming
- Renewable energy in place of fossil fuels for on-farm activities, including an array of options, ranging from small-scale solar and wind, methane biodigesters, and geothermal heat pumps that offset the costs of heating and cooling.
- Pairing cattle grazing and crop rotations to reduce reliance on synthetic nitrogen fertilizers (Northrup et al., 2021).
- There have also been significant developments in technology to use single-cell proteins as a more climate-friendly alternative to meat (Northrup et al., 2021).

Climate change will bring with it increases and changes in precipitation patterns, which have already been noticeable by local farm operators. Meanwhile, technology or other strategies used to mitigate or adapt to climate impacts (for instance renewable energy development or precision technologies) can provide new opportunities for maximizing agricultural viability. Although it does require investment and change, appropriate climate adaption and mitigation actions have the potential to benefit future agriculture and its resiliency across Onondaga County.

LAND USE AND LAND USE CHANGE

Given its rich agricultural soils, there is a long history of agriculture as a land use in Onondaga County. Agriculture includes a variety of markets, ranging from orchards, cornfields, open fields, dairy operations, fruit or vegetable crops, or other specialty crops. Agriculture provides most of the scenic landscapes throughout the County, as viewed along rural scenic corridors like Route 20 or 80. Anywhere from 20-30% of the County in recent years has been cultivated or has been used for cropland, grassland, or other types of agricultural activities (USDA NASS CropScape Data Layer; USDA NASS Census of Agriculture , 2017a).

There are three primary ways to categorize, understand, and map farmland and farmland uses. These categorizations can help to understand the changes that are occurring in the agricultural community.

1. The first is through pixel-based satellite imagery, which can be collected for all areas across the US to compare between states in a consistent manner (USDA NASS CropScape Data Layer, 2021b).

[2] SUNY ESF and Cornell University have been working for two decades to facilitate the commercialization of willow biomass (see www.esf.edu/willow for a financial analysis tool to see its potential viability for specific areas).

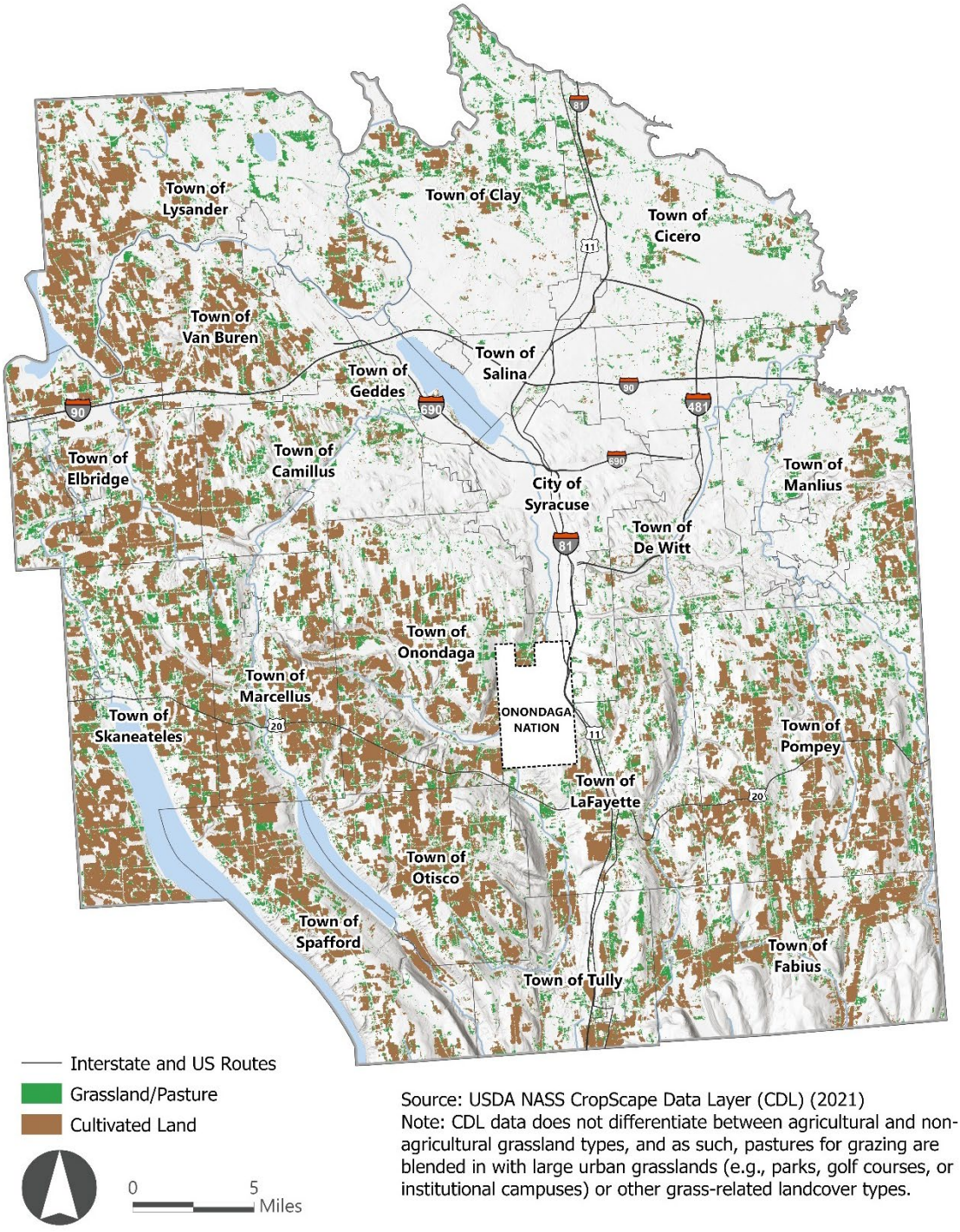
2. The second is through the parcel-based New York State Real Property Classification system, which uses property class codes assigned to individual parcels to evaluate specific uses of agricultural lands based on reported property assessments (New York State Department of Taxation and Finance, 2022).
3. The third source is operation-specific information that is collected through the USDA NASS Census of Agriculture administered to individual farm operators (USDA NASS, 2022). Precise acreage estimates vary depending on the specific sources.

Map 2 demonstrates agricultural land cover using satellite imagery. As indicated in Map 2, a large portion of the total land in Onondaga County has agricultural land cover, meaning that it has been cultivated or used for grassland or pasture at least once in the past five years (USDA NASS CropScape Data Layer, 2021a).

Map 3 shows the variety of land uses related to agriculture throughout Onondaga County by parcel data. Agricultural land uses occur in properties throughout Onondaga County in nearly all towns (none in the Town of Geddes) surrounding the City of Syracuse and even some of the villages (e.g., Village of Tully). Farmland is primarily concentrated in the western and southern portion of the County, although there is a diverse array of smaller agricultural properties occurring in the northern reaches of Clay and Cicero, as well as the eastern portion of Manlius.

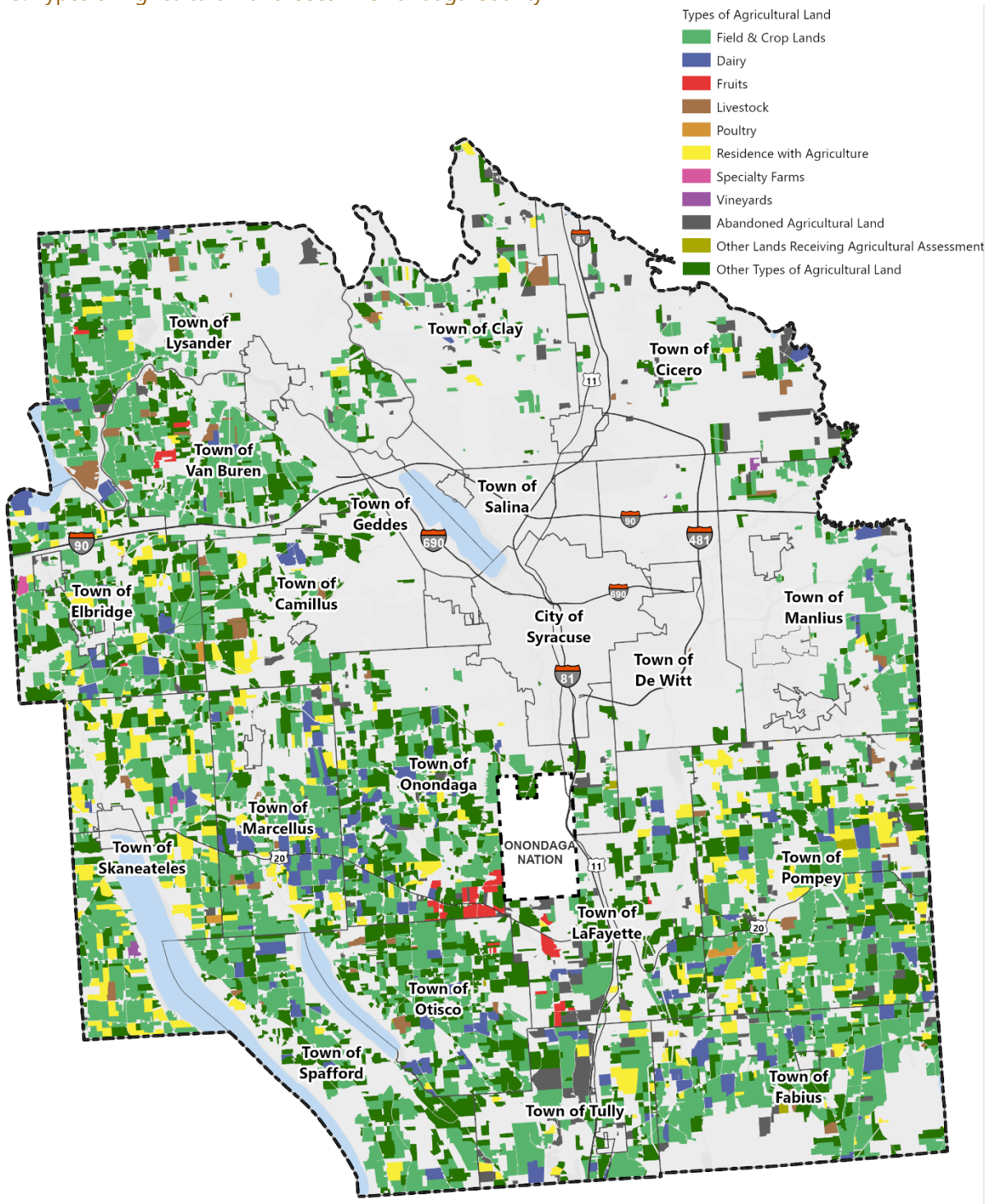
Dairy is a predominant agricultural land use across the County, primarily occurring throughout the southern and western portions of the County. Agricultural activities associated with dairy farming include fields used for grazing and cropland for growing feed (e.g., corn and soy). There are also nodes of other crops, including vegetable and berries in the northern part of the County and apples in the south-central portion of the County. Notably, there are also areas used for urban agriculture not shown on the map, including community gardens and the Brady Farm in Syracuse. For more discussion on the types of agricultural operations in the County, see the Economic Profile).

Map 2: Agricultural land cover in Onondaga County



Source: USDA NASS CropScape Data Layer (CDL) (2021)
Note: CDL data does not differentiate between agricultural and non-agricultural grassland types, and as such, pastures for grazing are blended in with large urban grasslands (e.g., parks, golf courses, or institutional campuses) or other grass-related landcover types.

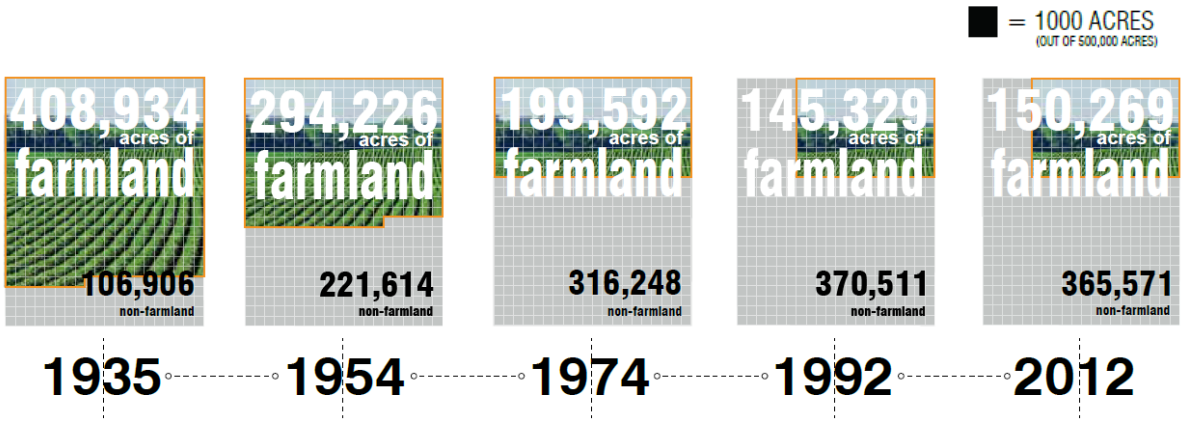
Map 3: Types of Agricultural Land Uses in Onondaga County



Source: Onondaga County Parcels (2021)
Note: "Other" refers to agricultural parcels identified from Onondaga County GIS Department.

Onondaga County, like many areas in New York State and across the U.S., has experienced an overall decline in the land used for farming as well as the number of active farms over the past century, particularly after the post-WWII population boom and the popularity of single-family housing in suburban communities. Currently, mirroring what is occurring across the nation, the proportion of land in agriculture is around one-third of the total land in the County, a steep decline from four-fifths in 1935 (Food Plan CNY, 2021).

Figure 10: Farmland changes in Onondaga County since 1935



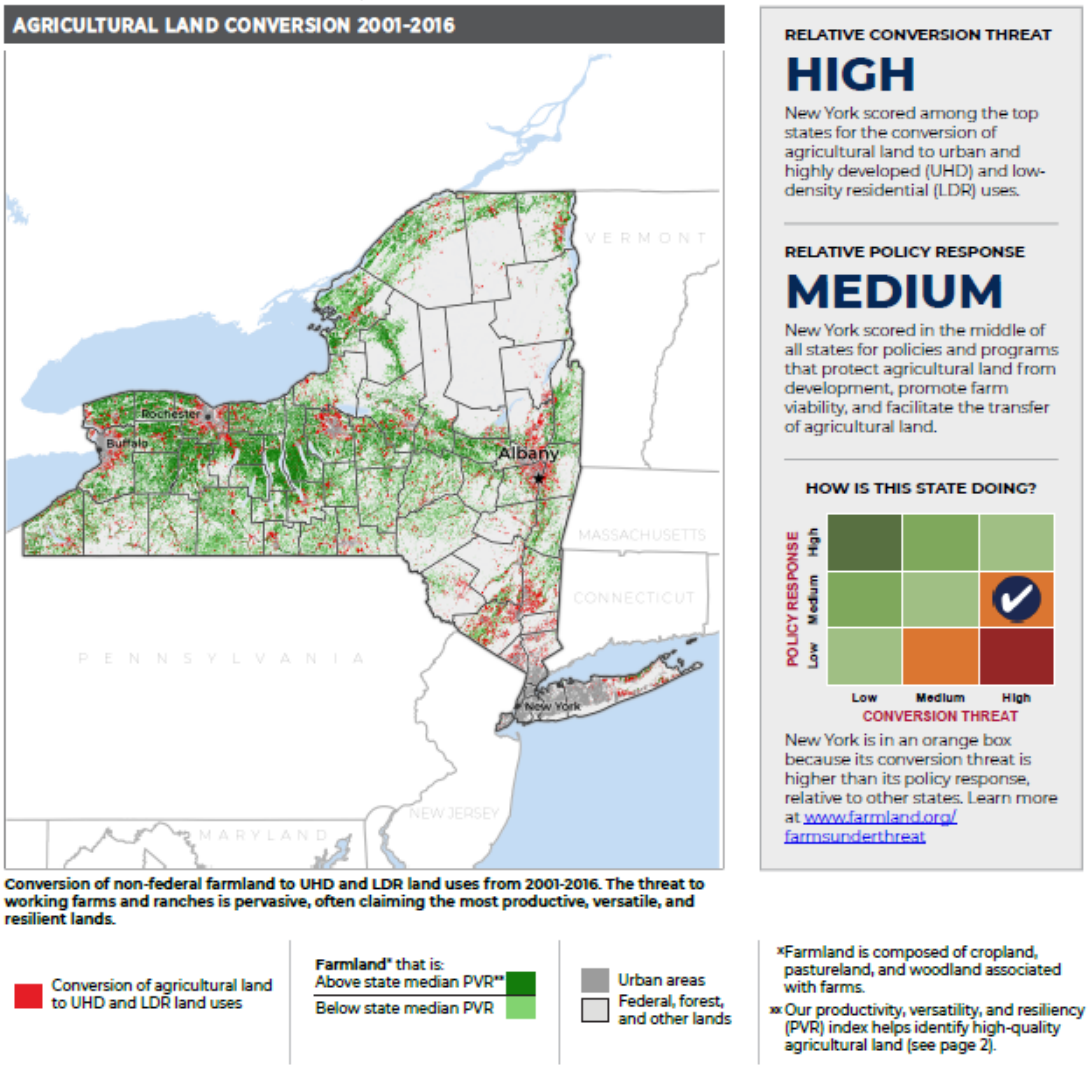
Sources: USDA NASS Agricultural Census; SOCPA; Food Plan CNY. Note: Graphic adapted from Food Plan CNY. Percentage of farmland loss based on acres of farmland from the USDA NASS Census of Agriculture, 1935 and 2012. These figures were divided by the total of 515,840 acres in Onondaga County to estimate percentage of agricultural land use in the County.

In recent years, the County has experienced a slight increase in farmland, up slightly from the low of 29% farmland in 1992 to approximately 30% in 2017. During this plateau the number of farm operations has declined, indicating a trend toward larger farms via consolidation. Although the number of farming operations have been decreasing, there has been an increase in the total acreage of land operated since 2002 (+4,433 acres according to the USDA Census of Agriculture of 2002 and 2017). The increase in the total acreage of active agricultural land can be attributed to consolidation whereby the previously inactive agricultural land is reactivated. From another perspective, from 2002 to 2012, there was a 50% loss in farm sales for medium sized farms (Food Plan CNY, 2021) while larger farms had either the same or experienced an increase in sales (+24% according to the USDA Census of Agriculture of 2002 and 2017). Medium sized farms (those with $100K through $500K in sales) face increasing pressures to compete with larger commodity production operations (Food Plan CNY, 2021). For more discussion about how the number of larger farms has increased in number, see the Economic Profile.

Despite the recent increase of active agricultural land in Onondaga County through consolidation, there has also been a loss of farmland converted to commercial and residential development. Once developed to these other uses, farmland is essentially impossible to convert back to its original state. In recent years in Onondaga County, this has primarily occurred in suburban communities like Cicero, Clay, and Lysander (see Figure 10). The American Farmland Trust mapped agricultural land conversion throughout the US between 2002 and 2016. The spatial analysis identified the extent, diversity, and quality of each state's agricultural land—and where this land has been converted to both urban and highly developed (UHD) and low-density

residential (LDR) land uses. The report also evaluated state policy responses and scored the states based on their relative conversion threat.

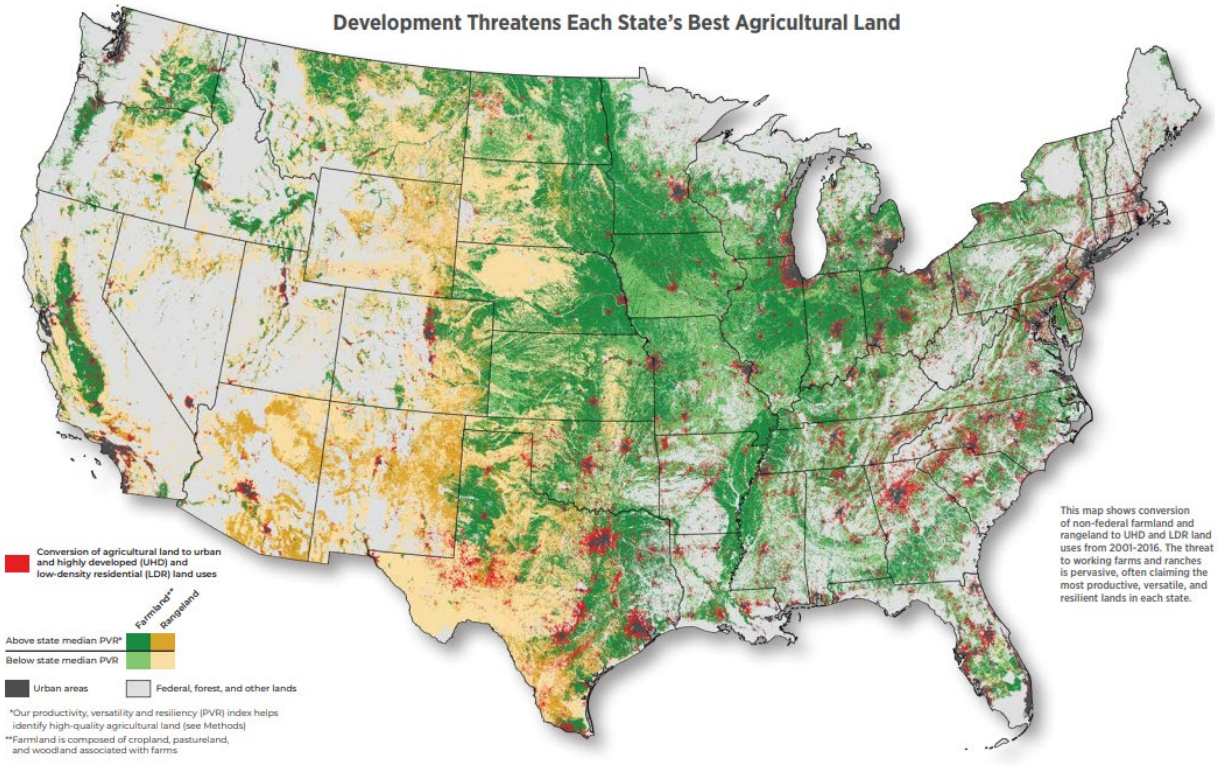
Figure 11. Conversion of Agricultural Lands in New York State



Source: American Farmland Trust. 2020b. Farms Under Threat. New York State Spatial Summary and Policy Scorecard. Available at: https://farmlandinfo.org/publications/farms-under-threat-the-state-of-the-states/ (Accessed March 2022).

The trend of farmland loss occurred in every state in the continental U.S (see Figure 11). Between 2001 and 2016, 11 million acres of farmland and ranchland were converted to urban and highly developed land use (4.1 million acres) or low-density residential land use (nearly 7 million acres). That's equal to all the U.S. farmland devoted to fruit, nut, and vegetable production in 2017—or 2,000 acres a day paved over, built up, and converted to uses that threaten the future of agriculture (American Farmland Trust, 2020a).

Figure 12. Conversion of Agricultural Lands in the United States

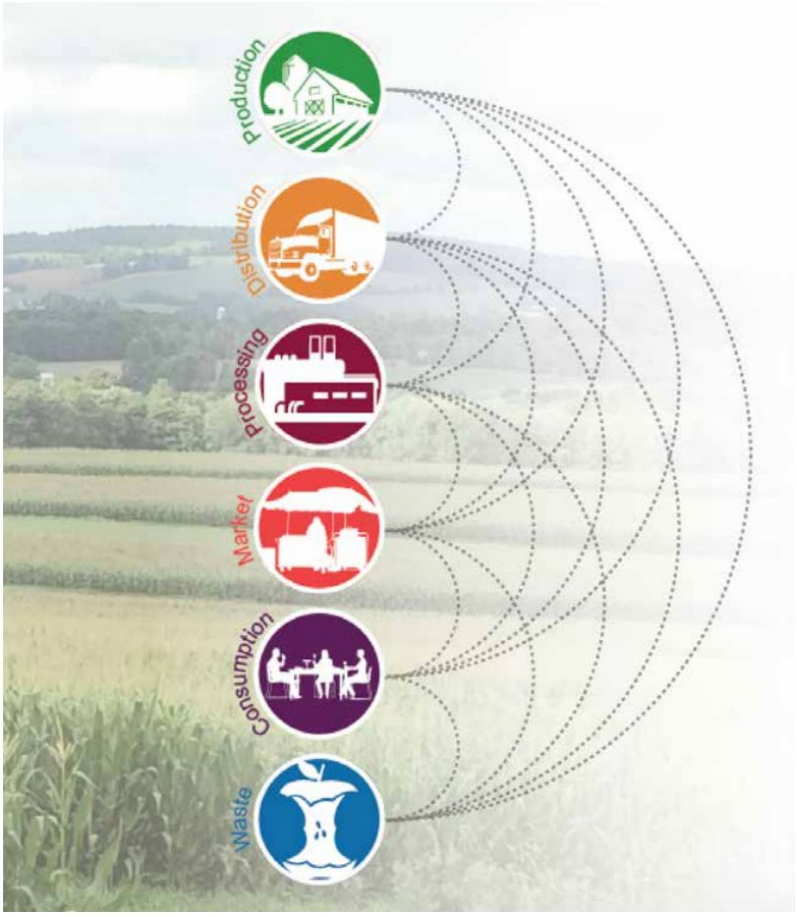


Source: American Farmland Trust. 2021. Farms Under Threat: The State of the States. Available at https://farmlandinfo.org/publications/farms-under-threat-the-state-of-the-states/ (Accessed March 2022).

ONONDAGA COUNTY FOOD SYSTEM

Agriculture is inseparable from the broader context of the food system. The food system includes all people and processes involved from producing to consuming food, including waste disposal and recycling. In Onondaga County, the food system operates at multiple scales with agricultural products being sold in local, regional, and global markets. The food system can be examined through the following components: production, distribution, processing, markets, consumption, and waste & recycling. The following sub-sections describe each of these components of the food system within Onondaga County as supported by research conducted by Syracuse University and the SUNY College of Environmental Science and Forestry (SUNY ESF) and published in the Food Plan CNY (Potteiger & Weissman, 2021). The Food Plan was recognized by the Onondaga County Legislature and funded through the Onondaga County Agriculture Council.

Figure 13: Food System Components



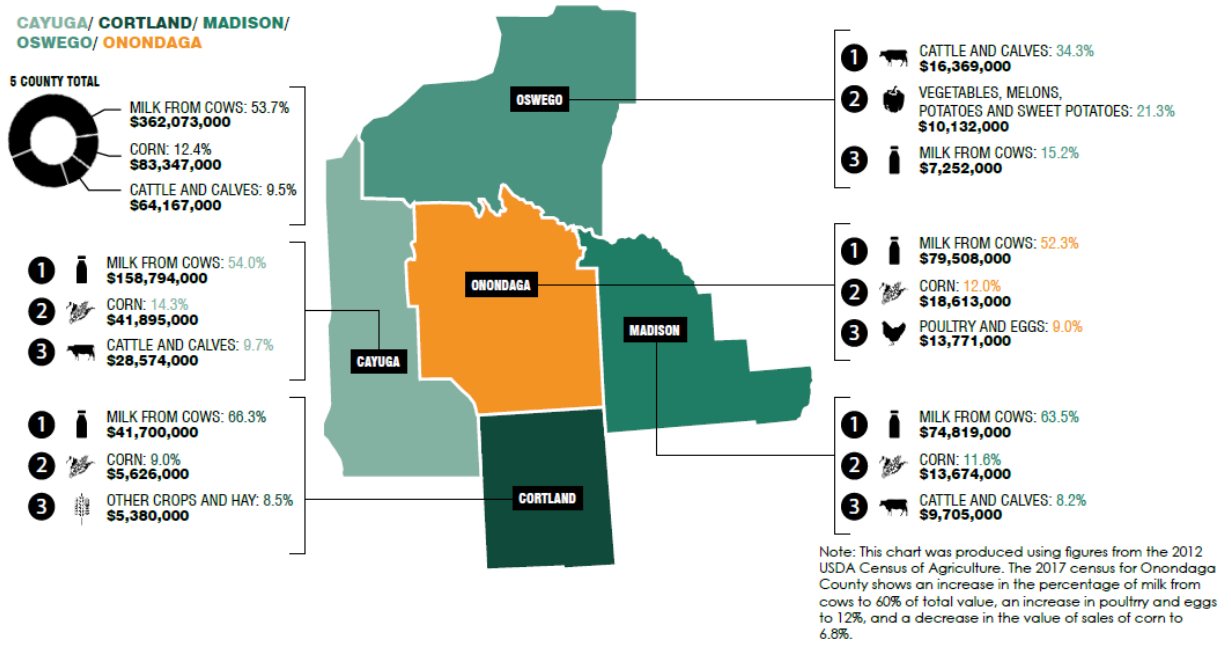
Source: Potteiger, M. & Weissman, E. 2021. Food Plan CNY. Available at: https://agriculture.ongov.net/wp-content/uploads/2021/03/Food-Plan-CNY.pdf

PRODUCTION

Producers growing for the local food system require supportive processes and infrastructure that differ accordingly to scale and commodity. For food producers of all types and scales to thrive in the future, they must be connected to consumers whether locally or elsewhere through appropriate processing, distribution, and markets that meet the needs of their operations. Given the abundance of natural resources, the potential exists for agricultural production within Onondaga County to feed the entire population of Onondaga County (Peters et al., 2008). However, today's markets reach far beyond the County.

As reflected in other sections of this document, Onondaga County's agriculture is a primary economic industry, producing $178 million in annual sales from a total of 623 farms (USDA NASS, 2017a). These farms make the County one of the most productive in the state. Onondaga County ranks first in the state for eggs and poultry production and ninth in dairy production for New York counties. It is in the top 5% of U.S. counties for milk production. Milk accounts for over half of the County's agriculture sales, with corn (12% of sales), and poultry (9% of sales) rounding out Onondaga County's top three agricultural products (see Figure 13).

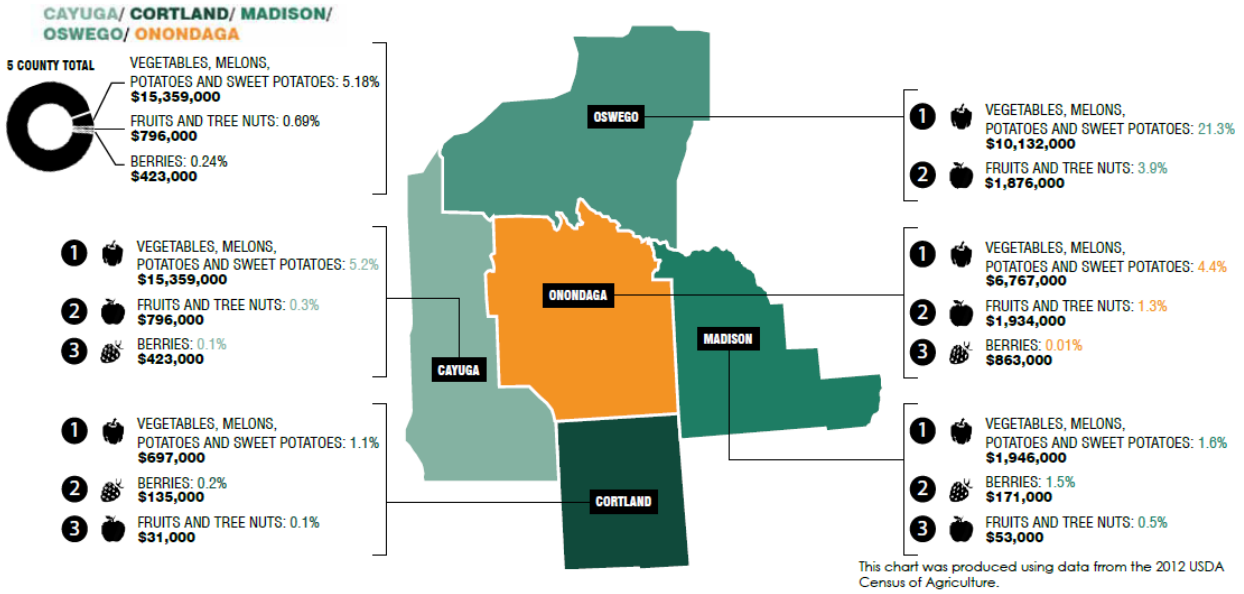
Figure 14 Top Three Agricultural Products per County in Central New York



Source: Potteiger, M. & Weissman, E. 2021. Food Plan CNY. Available at: https://agriculture.ongov.net/wp-content/uploads/2021/03/Food-Plan-CNY.pdf

Proximity to markets and natural landscape diversity supports the production of specialty crops such as vegetables (4% of sales), fruits and nuts (1% of sales), and berries (<1% of sales) (see Figure 14). Notably, urban agriculture and community gardening in Syracuse has expanded over the past decade providing food to residents and creating jobs in agriculture. More information about the types of crops that Onondaga County provides is detailed in the Agricultural Economic Profile.

Figure 15. Crop Diversity per County in Central New York



Source: Potteiger, M. & Weissman, E. 2021. Food Plan CNY. Available at: https://agriculture.ongov.net/wp-content/uploads/2021/03/Food-Plan-CNY.pdf

Onondaga County's agriculture also faces several challenges that have led to declines in the total number of farms, total land in production, and a trend toward larger farms and consolidation. Onondaga County farms face a series of pressures that threaten farm viability. Challenges include development pressure, an aging farm population, and global competition. Fluctuating commodity prices combined with increasing production costs make it challenging for producers to stay afloat competing within a globalized food system. The impacts of climate change add another layer of difficulty as Central New York is already experiencing an increase in extreme climate events. More information about these challenges is found in the Natural Resources section and the Land Use Change section.

DISTRIBUTION

The Syracuse metropolitan area is a major distribution hub due to accessibility to the NY State Thruway and Interstate 81. These corridors connect Onondaga County within a few hours' drive to major markets and population centers such as New York City, Philadelphia, Boston, Toronto, and Montreal. The County's distribution sector employs over 1,800 people and is home to 39 wholesale distribution establishments that operate at international, national, and regional scales (Food Plan CNY, 2021). Distributors' networks operating at the local and regional scales include the Central New York Regional Market Authority (CNYRMA), emergency and institutional food distribution, and independent businesses. The CNYRMA, established in 1938, owns warehouses that offer distribution space for private businesses and direct retail opportunities for farmers twice each week at their public market.

Local and regional distribution networks support local producers by facilitating local and regional food sales. Syracuse is home to extensive distribution infrastructure, but this infrastructure generally serves national grocery and food service corporations which most commonly exclude regional producers. Prior to the large-scale privatization and consolidation across the food sector occurring in the 1960's, the Central

New York Regional Market Authority held distribution infrastructure that enabled the operation of several independent regional distributors who served diverse markets and retained a higher proportion of economic activity within the region (Food Plan CNY, 2021). Barriers to rebuilding regional infrastructure include market competition, institutional barriers, and food safety requirements. Workforce shortages essential for distribution have recently been identified related to logistics and off-hour shifts (Food Plan CNY, 2021).

PROCESSING

The food processing sector is critical to supporting Onondaga County's agricultural producers to ensure that local food reach local markets. The processing sector employs 1,500 people at over 150 food processors and manufacturers in the County. Onondaga County food processors and manufacturers have annual sales of over $438 million, nearly 2.5 times the County's annual agricultural sales (Food Plan CNY, 2021). Over half of annual processing sales are in the dairy industry, which has major processing facilities in the region for Greek-style yogurt. This type of yogurt requires three times the amount of milk used in traditional yogurt production, sharply increasing the market for locally produced milk as well as the jobs it provides. Beyond the dairy sector, most food processing companies are small and include bakeries, breweries, distilleries, and ice cream stands with fewer than five employees (Food Plan CNY, 2021). Onondaga County breweries and distilleries are supporting a resurgence of hops and barley production in the region, such as Clark Hollow Hops in Fabius, NY. Recent growth in the breweries and associated tourism has been aided by the 2012 passage of the NY State Farm Brewery Law, which reduces the regulatory burden for breweries who source ingredients from the state of New York.

Despite the recent renewal of small-scale processors, Onondaga County has lost much of its local food processing infrastructure over time. The loss in processing facilities has been attributed to growth of multi-national corporations that have dominated retail space and are able to have full control over processing plant locations (compared to smaller local processors that are limited in capacity). In particular, the closure of mills, vegetable processing, and meat packing facilities are barriers to many producers seeking access to local markets. Food Plan CNY found that lack of slaughter capacity is considered a bottleneck for Onondaga County meat producers despite an increasing demand for local meats.

Figure 16. Shelf space for multinational potato chips compared to local potato chips

Source: Survey of local supermarket aisles for FritoLay Products (multinational processor) compared to Terrell's Potato Chips (local processor) conducted through Food Plan CNY, 2021.

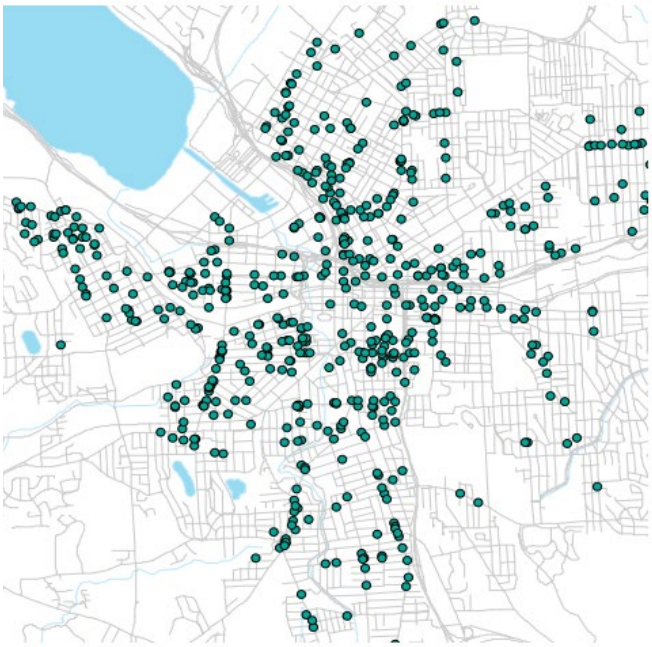
MARKETS

Onondaga County is home to 370 retail food markets (grocery stores, supermarkets, gas stations, convenience stores, and corner stores) accounting for over $1.3 billion in annual sales (Food Plan CNY 2021). Syracuse, the urban center in Onondaga County, is centrally located in an important access point for markets who consume local agriculture. Furthermore, Syracuse is an access point for goods to reach regional and

even global markets as it is within just a few hours' drive from major markets across the Northeast from Boston to Philadelphia. The Central New York Regional Market Authority (CNYRMA) is a critical asset as it serves thousands of local consumers through direct retail and warehouse distribution. Until relatively recently, this facility helped distribute and market the majority of food consumed within the County (Food Plan CNY 2021). Today, however, most food in Onondaga County is distributed through private channels such as supermarket chains and food service corporations who utilize their own respective distribution centers. Recently, small scale food markets have been and continue to be promoted to increase local food access (e.g., the Syracuse Salt City Market and the recently opened Brady Market).

Despite Onondaga County being a major food production hub, thousands of its residents live without consistent access to healthy, affordable, and culturally appropriate food (see Figure 14). Over the past five decades, grocery stores have increased in size and decreased in number, while small markets with fresh food have primarily closed or been converted to convenience stores. This has left both urban and rural residents without sufficient access to full-service grocery stores that have healthy food (Food Plan CNY 2021). Just as many residents' face barriers to accessing food, challenges exist for farmers to get their products to local markets, such as a lack of intermediate infrastructure, burdensome food safety requirements, retail consolidation, and competitive markets (Food Plan CNY 2021).

Figure 17. Historic food market infrastructure in the City of Syracuse



Food Store locations, 1938. Syracuse

Market on Oswego Ave. Syracuse, 1930's
(Photo courtesy of Onondaga Historical Association)

Source: Food Plan CNY and the Onondaga Historical Association

CONSUMPTION

Food consumption is a significant economic driver in Onondaga County and eating locally sourced foods has become an important economic trend. Census data shows a significant increase in farms with direct sales in the County, consistent with national trends (Food Plan CNY 2021). The Onondaga Grown campaign, developed by the Onondaga County Agriculture Council, promotes the consumption of local foods at local markets, restaurants, and other venues. Various organizations, individuals, and government agencies are partnering to address persistent food insecurity challenges. Institutional food service programs at schools, hospitals, and government agencies serve thousands of County residents each day and represent an opportunity for purchasing local foods. Connecting food producers and consumers in Onondaga County offers the potential to address food insecurity and associated public health issues while supporting local agricultural production. Just to meet the recommended daily servings of fruits and vegetables for Onondaga County residents would require a significant increase in the production, distribution, and processing of local fruit and vegetables (Food Plan CNY 2021).

WASTE & RECYCLING

Over 40% of food produced in the US is wasted, and food waste is the single largest category of waste in landfills (Food Plan CNY, 2021). Food waste occurs in all sectors of the food system, with the majority of food waste in the US coming from consumption (43%), market (40%), and production (16%). At the consumer level, key drivers of waste stem from cooking waste and uneaten leftover waste, as well as spoilage. At the market level, overstocking, extending past the sell-by date, consumer demand for unblemished food, and packaging requirements can lead to waste. Finally, at the farm production-level, waste is generated by crop loss, pests, mechanical failures, contamination, changes in market demands, or labor shortages.

Onondaga County is a regional leader in composting of food waste, with Onondaga County Resource Recovery Agency (OCRRA) being the largest composting facility in New York State. This is important when it comes to understanding the possibilities of scaling the composted food waste in Onondaga County. Recently, according to Food Plan CNY, there has been a growth in the agriculture-related industry using OCCRA's compost (e.g., hops growers).

Reduction of food waste is also led by food rescue through emergency food distribution networks, including the Food Bank of Central New York and Interreligious Food Consortium. These networks redistribute millions of pounds of food that may have otherwise gone to waste (Food Plan CNY 2021). Despite the County's successes, opportunities exist to improve food recovery and increase residential composting.

Since the time of publishing the CNY Food Plan, it is also notable that the NYS Food Donation and Food Scraps Recycling Law was enacted in January 2022. This law requires that businesses and institutions that generate an annual average of two or more tons of wasted food per week must donate excess edible food and recycle all remaining food scraps if they are within 25 miles of an organics recycler (composting facility, anaerobic digester, etc.). See https://www.dec.ny.gov/chemical/114499.html#DFSG for more information. This applies to several large institutions, hotels, and restaurants in the Syracuse area.

It is also notable that in addition to the food waste considered by the CNY food, there are also non-food agricultural waste produced because of agricultural activities, including manure, oil, silage plastics, fertilizer, pesticides, and herbicides. US farmers generate 816 million pounds of plastic waste annually, with much of this waste occurring from plastic mulch and plastic containers (Mancl, 2020). Recycling of this plastic is complicated because it is wet, covered with dirt, and can be contaminated with herbicides and pesticides.

AGRICULTURAL PLANNING PROFILE

Onondaga County, the broader Central NY region, and local municipalities within Onondaga County, are utilizing formal planning mechanisms to advance farmland protection and promote agricultural viability. The County, local governments and other decision-making entities are generally supportive of agriculture; however, the ways in which this support is manifested varies based on the size of a municipality, location, planning resources, and regulatory authority. This section briefly summarizes policies, planning efforts, and agencies/organizations related to agriculture in the region. This section also presents the Farm Friendly Toolbox, which developed from this planning process as a set of land use tools municipalities can use to protect farmland and support agriculture at the local level.

AGRICULTURAL DISTRICTS

New York's Agricultural Districts Law, Article 25-AA of the NYS Agriculture and Markets Law was enacted in 1971 to help keep farmland in agricultural production. Agricultural districts define areas within local jurisdictions that rely on farming as the primary economic activity and primarily benefit owners of land that is farmed. In doing so, agricultural districts protect agriculture through a combination of landowner incentives and protections that discourage the conversion of farmland to non-agricultural uses, including:

- providing reduced property tax bills for agricultural lands - property owners must apply annually with their local assessor for an agricultural assessment
- providing the framework to limit unreasonable local regulation on farm practices
- providing Right to Farm provisions that protect agriculture from private nuisance suits
- modifying state agency administrative regulations and procedures to encourage the continuation of farm businesses
- modifying the ability to advance public funds to construct facilities that encourage development
- preventing benefit assessments, special ad valorem levies, or other rates and fees on agricultural lands for the finance of improvements such as water, sewer or nonfarm drainage
- modifying the ability of public agencies to acquire farmland through eminent domain

Agricultural Districts primarily benefit owners of land that is farmed. Being part of an Agricultural District does not:

- directly affect the use of land beyond existing requirements, for example, zoning; or
- directly reduce or increase tax assessments—agricultural landowners can apply to the local tax assessor for an annual agricultural assessment.

Every eight years agricultural districts are reviewed by the Agriculture and Farmland Protection Board and parcels recommended for inclusion are sent to the Onondaga County Legislature for approval. Once approved the districts are recertified by the NYS Department of Agriculture and Markets Commissioner. During the review, landowners or municipalities can request that property remain in the district, be removed, or added. Property may also be requested for addition annually during a month-long request period Jan 1-30, as part of the annual additions process. Land may only be removed during the eight-year review.

Map 4 shows the geography of Onondaga County's Agricultural Districts, which are certified per Section 300 of Article 25-AA of the New York State Agriculture and Markets Law. These districts are summarized in Figure 18 based on their most recent eight-year recertification reports. It is important to note that not all farmland is in an agricultural district and not all land in agricultural districts is necessarily farmland. As

districts were previously required to encompass a contiguous area, some non-agricultural lands are still enrolled in agricultural districts. This dynamic is slowly correcting itself through the district renewal process. Additionally, awareness is increasing regarding the benefits for participating in agricultural districts; while the pressures to develop farmland continue to increase, enrollment of farmland in the agricultural district program has increased as well, with a net increase of almost 5,000 acres of land since 2016. It is notable that this is despite properties removing themselves from Agricultural Districts at the same time. The reasons for the additional lands vary, and range from large farms consolidating large parcels, existing farmers adding land that should have been enrolled previously, and smaller lots (5-20 acres).

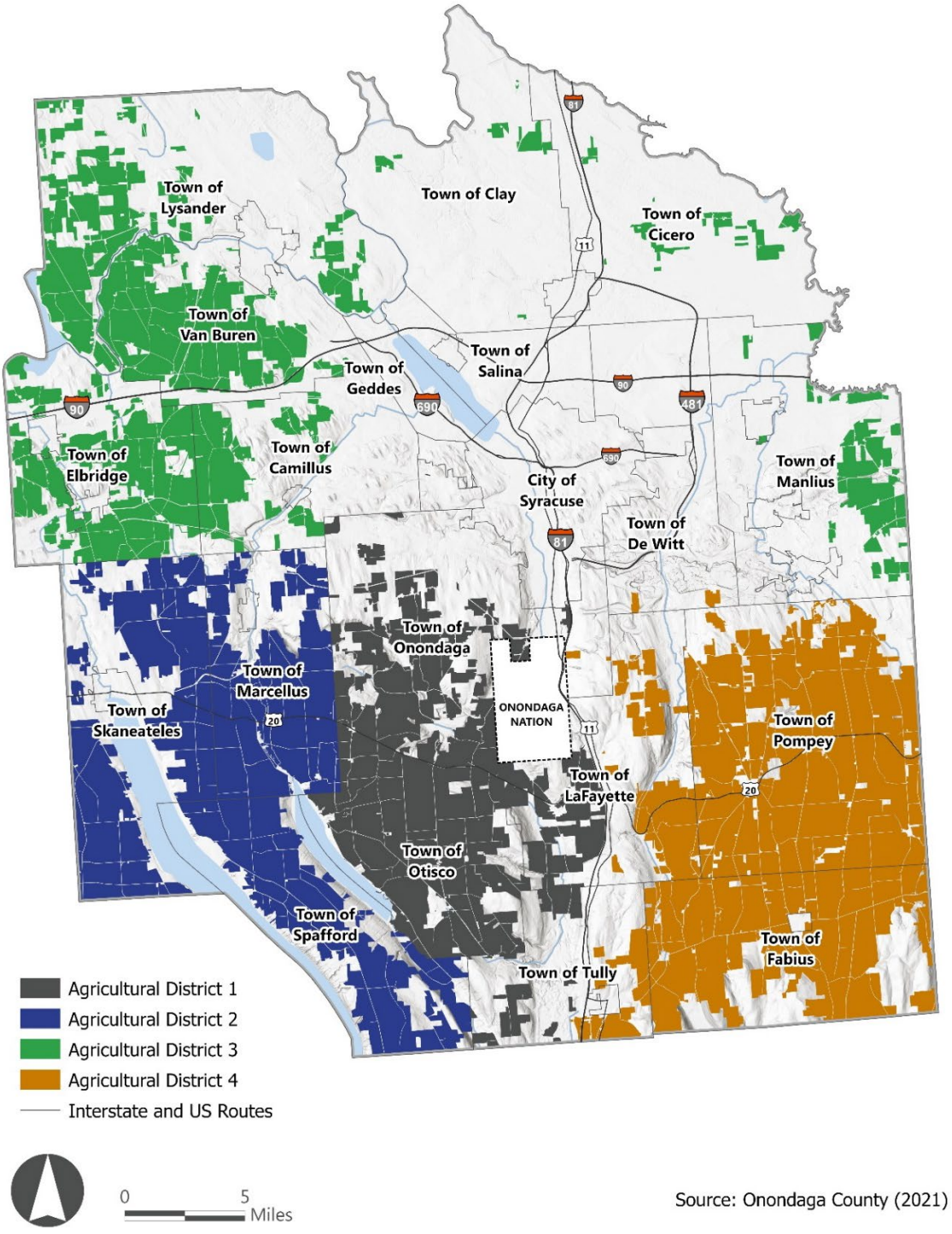
Figure 18. Summary of Onondaga County Agricultural Districts

Agricultural District	Most Recent Renewal Date	Total Parcels	Total Acres	Prior Renewal Date	Acreage After Prior Renewal	Change In Acres Since Previous Renewal
District 1: West of I-81 in the Towns of LaFayette, Onondaga, Otisco, and Tully	2018	2,313	38,580	2010	37,539	1,041
District 2: Towns of Marcellus, Skaneateles, and Spafford	2020	2,600	47,733	2012	47,230	503
District 3: Towns of Camillus, Cicero, Clay, Elbridge, Lysander, Manlius, and Van Buren	2022*	2,631	49,677	2014	47,325	2,352
District 4: Towns of DeWitt, Fabius, Pompey and East of I-81 in the Towns of LaFayette, Onondaga, and Tully		3,441	62,893	2008	61,950	943
Totals		**10,985**	**198,883**			**4,839**

**Anticipated.*

More information about the individual districts, including detailed maps and review and recertification reports, is available at http://www.ongov.net/planning/review.html.

Map 4: Onondaga County Agricultural Districts



PREVIOUS PLANNING EFFORTS RELATED TO AGRICULTURE

ONONDAGA COUNTY AGRICULTURAL AND FARMLAND PROTECTION PLAN

Adopted in 1997, the original Onondaga County Agricultural and Farmland Protection Plan promoted three main goals for the local agricultural sector: 1) enhance the viability of agriculture in Onondaga County, 2) protect farmland resources, and 3) promote the economic and social importance of the agricultural industry in Onondaga County. The plan was created to be used by individual farmers, farmer groups, and all levels of elected officials as a guide for the development of local planning and land use decisions to support the viability of the agricultural industry in Onondaga County. seven recommendations were defined at the County and municipal levels accompanied by a range of actions. There has been significant progress on the goals since 1997, and specific implementation measures of these actions is found in Appendix A.

- Reduction of property and estate taxes on farmland
- Exploration and implementation of land use mechanisms to protect existing areas of important farmland resources at the municipal level
- Recognition and promotion of the agricultural industry as separate and equal to other industrial sectors in Onondaga County
- Support of public and private land protection initiatives at the county level
- Increase of technical support provided to agriculture
- Expansion of agricultural education in the classroom throughout the County through public and private initiatives
- Promotion of agriculture throughout the County through public education and community awareness

CNY RISING UPSTATE REVITALIZATION INITIATIVE

CNY Rising is the regional plan and investment prospectus submitted in 2015 for New York State's Upstate Revitalization Initiative, ultimately awarded $500 million in competitive economic development funding. This plan sets forward the following vision for the region: "Transform our communities by retooling for a modern economy and the intentional pursuit of collective prosperity. This prosperity must be built by including all regional residents in opportunities for economic and social empowerment through processes that are transparent and equitable." One of the important focuses for this revitalization initiative is agribusiness development. CNY Rising includes a strategic proposal for agribusiness with the following four strategies: 1) Establish the region as a center of innovation, research and manufacturing expertise for the production of a variety of extended shelf life (ESL) food products (aseptic, UHT) that respond to growing global demand in key markets; 4) Make investments in physical infrastructure with primary focus on improvements to rail freight and ports to gain access to metropolitan New York and international market; 3) Establish the Central New York region as the East Coast Center for Controlled Environment Agriculture (CEA) production in the United States; 4) Develop technologies and support services to manage organic wastes. More information is available through https://esd.ny.gov/central-ny-rising-uri.

CNY REGIONAL ECONOMIC DEVELOPMENT COUNCIL 2021 PROGRESS REPORT

The 2021 CNY Regional Economic Development Council's Progress Report was created to assess economic development across the region, as well as to suggest strategies for continued progress. The report highlighted recent economic investments being made to increase agricultural viability in the region. These projects include the Grow NY Competition to promote technological innovation in agriculture, Heritage Hill

Brewery improvements, and expansion of Cayuga Milk Ingredients facilities for dried milk production, along with other smaller projects to assist local agricultural producers. Like many places across New York, impacts of the COVID-19 pandemic were heavily felt within the agricultural industry. Particularly impacted were producers of dairy and vegetables who distributed to school systems and restaurants. The Nourish NY program helped stabilize producers effected by the pandemic by providing $25 million in funding to New York's food banks to purchase produce and dairy products.

Two regional priorities were recommended for the agricultural sector, the first being the diversification of revenue streams. This means providing opportunity for farms in the region to participate in and benefit from value-added agriculture as a way to stabilize their own businesses and regional farming in general. A second priority was the expansion of local processing and supply chains to increase local food system resiliency by linking farmers to institutions via distributors. Investment in local processing and technological improvements to the local food system such as extending shelf life through aseptic packaging are important takeaways from the COVID-19 experiences in Central New York.

FOOD PLAN CNY

Food Plan CNY, commissioned by the Onondaga County Agriculture Council and prepared through a partnership between Syracuse University and SUNY College of Environmental Science and Forestry, is a collaborative project to assess, coordinate, educate and make recommendations to improve the food system of Central New York. Based on a robust baseline assessment supported by data, the Food Plan CNY identified three main opportunity areas for improving the economic, public health, and environmental outcomes in the food system of Onondaga County and surrounding counties: resilience, access, and coordination. Food Plan CNY offers five core recommendations to strengthen the County's food system:

1) Strengthen the "middle" of the food system: build processing and distribution infrastructure and strengthen community capacity and connections.
2) Grow community-based, healthy food environments: support community-based processes for creating diverse and resilient food environments, promote diverse food cultures, and increase community demand for healthy foods.
3) Create healthy, resilient environmental systems: connect the environmental outcomes to economic advantages including reducing greenhouse gas emissions from food system practices and integrating them into climate action plans, promoting the value of ecological services in agriculture, diversifying agricultural production, developing market-based strategies for sustainable agriculture, re-integrating waste as a resource in all food system sectors, and integrating farmland protection with food system planning.
4) Expand public space and participation in the food system: improve access to locally grown fresh food and farmers markets and equitably promote business development and economic opportunities.
5) Coordinate food system projects, planning, and policy: support the newly formed Syracuse Onondaga Food System Alliance and build inclusive processes for identifying food council partners, integrating food systems into City and County policies, and monitoring food system developments through collaborative studies.

PLAN ONONDAGA: ONONDAGA COUNTY COMPREHENSIVE PLAN

The **Plan On**ondaga County Comprehensive Plan is being developed to define a vision and goals for community success that incorporates the shared needs, goals, and challenges of each municipality in

Onondaga County. The planning process will focus on the importance of and linkages between community engagement, quality of life, and economic development, and will explore five thematic areas as a framework for community-based planning and developing impactful projects. Agriculture is one of the thematic areas to be addressed by the countywide comprehensive plan, along with strong centers, housing and neighborhoods, greenways and blueways, and community mobility. Supporting local agriculture is recognized by the plan to be vital to the future success of Onondaga County's economy, landscape, and food system.

FARM FRIENDLY MUNICIPAL LOCAL LAND USE TOOLS

In New York State, land use is controlled primarily at a local level, and thus, municipalities have a critical role in effective protection of agricultural lands. Meanwhile, agriculture has evolved in multiple ways over the past several decades and will continue to evolve into the future. Throughout, it has remained a very diverse and robust economic sector in Onondaga County. Through partnerships with local farmers, municipal governments can work to plan for the long-term viability of their agricultural sectors and create local land use regulations that are up to date, farm-friendly, and meet the needs of the community as well.

There are several tools available to assist communities that desire to protect the agricultural land resources and enhance the long-term viability of agriculture. Although land use is not regulated directly by Onondaga County, SOCPA and the Onondaga County Planning Board play a role in influencing agricultural land use decisions at the local level through reviews of proposed local comprehensive plans, zoning laws, special use permits, site plans, variances, and subdivisions pursuant to General Municipal Law §239.

The County's Agriculture and Farmland Protection Board, through administrative support for NYS Agricultural District applications and renewals, and through the Farmland Protection and Implementation Grant.

Onondaga County's town governments, on the other hand, have a more direct role in land use planning and land use regulation. Most of the towns within Onondaga County have adopted regulatory tools such as zoning laws, subdivision ordinances, and Right to Farm laws. Several towns also have comprehensive plans, and some (e.g., the Town of LaFayette) have their own Farmland Protection Plan.

Four municipalities in Onondaga County (Towns of Cicero, Manlius, LaFayette, and Onondaga) volunteered to have their planning and land use regulations reviewed through this planning process. Additionally, a Farm Friendly Toolbox was developed to assist any local government interested in navigating through the many recent changes to agriculture, as well as agricultural policies within NY, such as the protections afforded agricultural operations through the Agriculture and Markets Law. See Appendix B for the municipal assessments and the Farm Friend Toolbox. Local governments can use this toolbox:

- In reviewing zoning and other land use regulations to ensure they are up to date as they apply to agriculture
- As a resource to consult when creating or updating the community's comprehensive plan, or a farmland protection plan, or other local planning efforts
- As a resource to consult when creating or updating the community's zoning, subdivision, and other land use regulations

In reviewing proposed new development for consistency with the community's goals. Each municipality met with the assessment team to familiarize the team with local conditions and ask to undergo a question-and-answer session. The Team then performed a detailed review of local documents and regulations, and

prepared an assessment for each municipality, as well as a general "Farm Friendly Toolbox" for all municipalities. The Toolbox is posted on the County's agriculture.ongov.net website, and includes a recorded webinar held for municipal representatives as part of the project.

The Farm Friendly toolbox provides regulatory tools that local governments can use to manage growth and development within their boundaries. It is intended to guide local officials as well as residents, businesses, farmers, and others in day-to-day decisions. Well-crafted regulatory tools protect the health and welfare of the community and provide for efficient allocation of land and other municipal resources while providing the flexibility needed to prosper economically in an evolving global economy. Tools are organized into planning level tools (e.g., comprehensive plans, open space plans, and economic development plans), regulatory tools (e.g., Right-to-Farm laws, zoning regulations, farm friendly solar ordinances, and subdivision and other land use tools), and farmland preservation tools (e.g., purchase of development rights and lease of development rights). Municipalities are encouraged to use this toolbox to self-assess the ways and the degree to which their own local land use tools support farmland.

AGENCIES AND ORGANIZATIONS RELATED TO AGRICULTURE

The involvement of agricultural support agencies helps to protect farmland as well as to make Onondaga County an attractive place for agricultural businesses. The agencies and organizations below provide programs and services that are critically important to the viability of the agricultural sector in Onondaga County and to the regional economy.

ONONDAGA COUNTY AGRICULTURE AND FARMLAND PROTECTION BOARD

The Onondaga County Agriculture and Farmland Protection Board was created by the Onondaga County Legislature and is composed of farmers from areas throughout Onondaga County, as well as representatives from agribusiness community, natural resources organizations, the Onondaga County Legislature, Syracuse-Onondaga County Planning Agency, Onondaga County Real Property Tax Services, and Cornell Cooperative Extension. The mission of the AFPB is to protect and value agriculture and farmland to enhance its vibrancy, resiliency, and viability throughout the County. Tasks overseen by the board include:

- The County Agriculture and Farmland Protection Plan
- Review of local Agriculture and Farmland Protection Plans
- Agricultural districts program
- State grant program solicitations, coordination, and project execution
- Guidance to the Onondaga County Legislature on agricultural matters
- Other farmland protection activities

SYRACUSE-ONONDAGA COUNTY PLANNING AGENCY

The Syracuse-Onondaga County Planning Agency (SOCPA) provides a variety of planning services for Onondaga County and the City of Syracuse. Their mission is to provide and promote effective planning by Onondaga County,, its 19 towns and 15 villages, and the City of Syracuse. SOCPA adheres to planning best practices in the areas of public participation and citizen engagement, taking a bottom-up approach, in order to ensure an equitable and effective planning environment to develop policies that resonate with individuals and local communities. Specific services as it relates to agriculture include:

- Representation and staff support to the Agriculture and Farmland Protection Board,

- NYS Agricultural District Reviews and boundary revisions under NYS Agriculture and Markets Law §25-AA
- Staff support to facilitate farm owner access to the NYS Farmland Protection and Implementation Grants Program, commonly known as the "Purchase of Development Rights" (PDR) program, and/or related programs
- Representation and staff support to the Onondaga County Agriculture Council, created to promote and preserve the local agricultural community
- Municipal technical assistance for land use and comprehensive planning
- Trainings for local government officials
- Staff to the Onondaga County Planning Board to conduct reviews under NYS General Municipal Law §239
- Grant assistance and administration for municipalities
- Preparation of the County's comprehensive (PLAN ONondaga)
- Infrastructure coordination with local and regional entities
- Partnership and coordination with community organizations and agencies related to agriculture and farmland protection

ONONDAGA COUNTY AGRICULTURE COUNCIL

The Agricultural Council supports the agricultural community through education, promotion, and advocacy programs with the vision for a strong agricultural economy, secure and healthy food supply, abundant farmland in agricultural production, and stewardship of the environment. Specific initiatives include:

- The annual "Buy Local. Buy Onondaga Grown" media campaign, which seeks to:
  - educate the public on the importance of farming to the local community and on the size and scope of agriculture in the County
  - increase demand for locally grown food by making the public aware of what Onondaga County farms are capable of producing
  - let people know when seasonal items are available
  - generate support for protecting farmland
  - encourage the community to purchase food products grown or produced in the County by looking for the Onondaga Grown logo at local grocers, convenience stores, farm stands, farmers markets, and restaurants
- The annual ON Farm Fest "day on the farm event" that helps to build a relationship between the food producers and consumers. The event encourages the community to visit, tour, and support local farms, discover the latest advances in agriculture, explore what life is like on a farm, meet the farmers who grow their food, and have fun on the farm.
- Support for urban agriculture initiatives such as the Brady Farm, the Dr. King Urban Garden, the RISE SyRAP Agricultural Program, and the Jubilee Homes' Southwest Community Learning Farm.
- Funding for the creation of Food Plan CNY to assess the regional food system and identify strategies for improving food access, environmental and economic viability, and coordination of the local and regional food system.
- Funding for the development of agricultural programming in local school districts and support for educational programs such as Agriculture in the Classroom.

- Permanently protecting valuable farmland by supporting NYSDAM FPIG applications and creating a local donation of development rights program.
- An awareness campaign each year from June through October in partnership with local media outlets. The campaign's mission is to connect the community with the 600+ farms in our County through radio, TV, and social media
- Maintains the Onondaga Grown website that connects visitors to local producers, farmers markets, and farm-to-table restaurants.
- Supports the development of ON Farm Fest, where members of the public are invited to visit local farms throughout Onondaga County, who have local products for sale along with live music and interactive exhibits.

An awareness campaign each year from June through October in partnership with local media outlets. The campaign's mission is to connect the community with the 600+ farms in our County through radio, TV, and social media

CORNELL COOPERATIVE EXTENSION OF ONONDAGA COUNTY

The mission of Cornell Cooperative Extension (CCE) is to enable people to improve their lives and communities through partnerships that put experience and research knowledge to work. Extension staff and trained volunteers deliver education programs, conduct applied research, and encourage community collaborations. Educators connect people with the information they need on topics such as commercial and consumer agriculture; nutrition and health; youth and families; finances; energy efficiency; economic and community development; and sustainable natural resources. CCE's ability to match university resources with community needs helps play a vital role in the lives of individuals, families, businesses, and communities throughout Onondaga County. Specific programming includes:

- Educational and technical assistance/trainings on agricultural topics (e.g., marketing, production, processing, and waste management of various types of agriculture)
- Operation of young farmers programming (e.g., 4-H, Cornell Beginning Farmers Program)
- Coordination/support of local promotion and educational initiatives (e.g., Empire Farm Days, Onondaga Grown, Agriculture in the Classroom)
- Urban agricultural education in partnership with the Refugee and Immigrant Self-Empowerment (RISE)
- Natural resource education (e.g., invasive species management, forest management)
- Gardening programming (e.g., site improvement, plant selection and care, composting)
- Nutrition and health programming with workshops, applied research projects, and other information

ONONDAGA COUNTY SOIL & WATER CONSERVATION DISTRICT

The Onondaga County Soil & Water Conservation District (SWCD) offers natural resources programs and services, including technical assistance to farmers and landowners, training programs, and environmental education programs. Specific programs include:

- Technical assistance to landowners (e.g., farm pond design/maintenance, sediment and erosion control, drainage, flooding prevention/mitigation)
- Author grants to obtain farmer cost-share for implementation of Best Management Practices to protect water quality & environment
- Critical area seeding/revegetation
- Watershed assessment

- Nutrient management planning
- Agricultural use value assessment
- Annual tree and shrub sale
- Administration of the Agricultural Environmental Management program
- Equipment rental (e.g., no-till drill, hydro seeder, soil meter)
- Invasive species management (terrestrial and aquatic)
- Soil sampling, analysis, and interpretation of results for urban and rural agricultural producers
- Agricultural emergency response

ONONDAGA COUNTY FARM BUREAU

The Onondaga County Farm Bureau gives farmers and non-farmers alike the opportunity to be part of an organization dedicated to supporting and enriching agriculture. The Farm Bureau is active on a broad range of issues relating to agriculture, ranging from taxation, conservation, and local food availability. Specifically, the Farm Bureau provides the following:

- Public policy advocacy at local, regional, state, and federal levels
- Administration of Workers' Compensation Insurance
- Coordination of educational and technical assistance/trainings
- Higher education scholarships for children of farm families

SYRACUSE-ONONDAGA FOOD SYSTEMS ALLIANCE (SOFSA)

Established in 2019, the Syracuse-Onondaga Food Systems Alliance (SOFSA) is an independent food council in Central New York serving the city of Syracuse and surrounding Onondaga County. SOFSA's mission is to strengthen the local food system so that it works for all people in Syracuse and Onondaga County, particularly as it relates to food justice and food sovereignty. SOFSA brings communities together to foster relationships, develop projects, align resources, and advocate for policies to improve the health of local neighbors and environment. Specific highlights from recent work include:

- Speaker series and meet-up events to build connection and deepen relationships with those working on food system issues
- Publications in the media and academic research related to the local food system
- Co-hosting nine events and site visits to players in the local food system, ranging from Hudson Egg Farm, Salt City Commercial Kitchen, and the Brady Market

NEW YORK STATE DEPARTMENT OF AGRICULTURE AND MARKETS (NYSDAM)

The New York State Department of Agriculture and Markets is the department of the New York state government that enforces laws relating to agriculture, weights and measures, and the production, processing, transportation, storage, marketing and distributing of food. Specific programs and services related to farmland protection include:

- Administers many programs to protect these resources, from environmental planning to invasive species eradication, integrated pest management, seed, and fertilizer regulation. Planning activities include the following:
    - Farmland Protection Planning Grants
    - Farmland Protection Implementation Grants
    - Land Trust Grants

  - Agricultural Districts Programming - Counties manage the preliminary stages of creation or modification of an Agricultural District. After the County submits a resolution approving or modifying a district, the Commissioner of Agriculture and Markets certifies that a district meets the purpose and intent of the Agricultural District Law.
  - The Advisory Council on Agriculture, which advises the Commissioner of Agriculture and Markets and other state leaders on matters affecting agricultural districts and farmland protection.
  - The Farmland Protection Working Group, which recommends strategies to the State on the siting process of major renewable energy facilities and to minimize the impact of siting on productive agricultural soils on working farms.
- Supports the state's network of farmers' markets through programs that expand sales, promote improved nutrition, and help increase consumption of locally grown fresh fruits and vegetables
- From marketing programs such as the Taste NY and NYS Grown & Certified® programs, to assistance with exporting products or starting a new farm operation, the Department works with the agricultural community to connect farms to new markets, increase sales and exposure of New York products, and help protect and grow businesses across the state.

CENTRAL NEW YORK ENTERPRISE DEVELOPMENT CORPORATION

Operated by the CNY Regional Planning and Development Board as a non-profit, the CNYEDC administers the following funds and loan programs:

- CNY Enterprise Development Fund to support the growth and development of small businesses in Central New York, including Cayuga, Cortland, Madison, Onondaga, and Oswego. These grants are available for small businesses with 10 or fewer employees
- CNY Quasi-Equity Loan Programs to provide funds tailored to support challenging projects, including start-ups and small businesses with limited or specialized collateral
- Rural Micro-Entrepreneur Assistance Loan Program, which is available to small businesses with 10 or fewer employees located in a USDA designated rural area
- Energy Efficiency Loan Program is a revolving loan fund geared toward financing eligible energy efficiency projects, including feasibility studies, machinery, or equipment replacements
- NYS Grown and Certified Ag Producers Grant Program which provides funds to assist NYS ag producers in meeting food safety standards necessary for participation in the NYS Grown & Certified Program
- NYS Job Development Authority Small Business Agriculture Loan Program, which provides loans to small agribusinesses (100 or fewer employees)

LOCAL LAND TRUSTS

Local non-profit organizations are available to work with farmers to provide additional resources to conserve important working agricultural and forest lands for future generations. Three land trusts work locally in Onondaga County, and include the following:

- New York Agricultural Land Trust
- Central New York Land Trust
- Finger Lakes Land Trust

USDA REGIONAL SERVICE CENTER

USDA Service Centers are designed to be a single location where customers can access the services provided by the federal Farm Service Agency, Natural Resources Conservation Service (NRCS), and the Rural Development[3] agencies. The USDA Regional Service Center in Onondaga County provides the following services:

- Administration of local NRCS programs
  - Environmental Quality Incentives Program
  - Conservation Stewardship Program
  - Conservation Reserve Program
  - Watershed Rehabilitation
  - Conservation Innovation Grants
  - Others
- Administration of local Farm Service Agency programs
  - Dairy Margin Protection Program
  - Loan programs (e.g., Direct Operating, Micro, Direct Farm Ownership, Guaranteed, Minority & Women Farmers, Beginning Farmers & Ranchers, and Emergency loans)

[3] Rural Development programs are offered by the USDA Service Center in Marcy, NY.

AGRICULTURAL ECONOMIC PROFILE

This section identifies existing economic conditions, and trends facing farming operations, including those related to specific types of agricultural products, labor and support resources, market trends, technology, land value dynamics, and land ownership.

FARM OPERATIONS

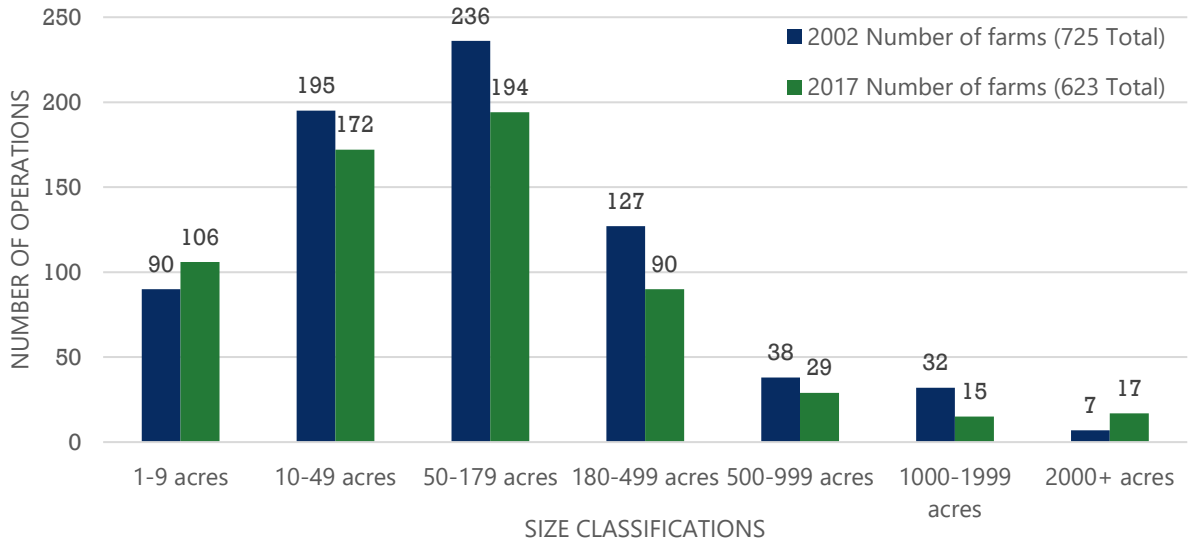
According to the most recent USDA NASS Census of Agriculture (USDA NASS, 2017a), there are 623 farms (i.e., operations) within Onondaga County. These farms are defined as any operation from which $1,000 or more of agricultural products were produced and sold or would normally sell each year (USDA Economic Research Service, 2022)[4]. Of these 623 operations, 428 were fully owned by the primary producer, 175 were partly owned by the primary producer, and 20 were leased by the primary producer (USDA NASS, 2017a).

The overall number of farm operations in Onondaga County decreased by 102 farms since 2002, yet the total acres of farmland operated has increased by 4,433 acres. In summary, as of 2017, Onondaga County is experiencing more acres being farmed through fewer farming operations. Essentially, there has been a notable consolidation of farms, with a growth in the size of the largest farms (USDA NASS, 2002 and 2017).

Figure 15 displays the changes in the size of farm operations across Onondaga County between 2002 and 2017. Essentially, the County lost 46% of its mid-sized farming operations (50 – 499 acres) yet experienced an increase in very small farms (an increase in 16 operations) and an increase in the number of very large farms (an increase of 10 operations) (USDA NASS, 2017a). Another way to view this change is that although the median farm size has decreased from 80 acres in 2002 to 65 acres in 2017 (USDA NASS, 2017a), the average farm size has increased from 216 acres/operation to 258 acres/operation. Meanwhile, there has been an increase in the total acreage of land operated since 2002 (+4,433 acres according to the USDA NASS, 2002 and 2017a). This reflects the trend towards consolidation of farm operations (see Land Use and Land Use Change sub-section in the Community Profile).

[4] Note that the USDA definition of farm operations is different from the definition used in the NYS Agricultural Assessment program.

Figure 19: Changes in farm operations by size



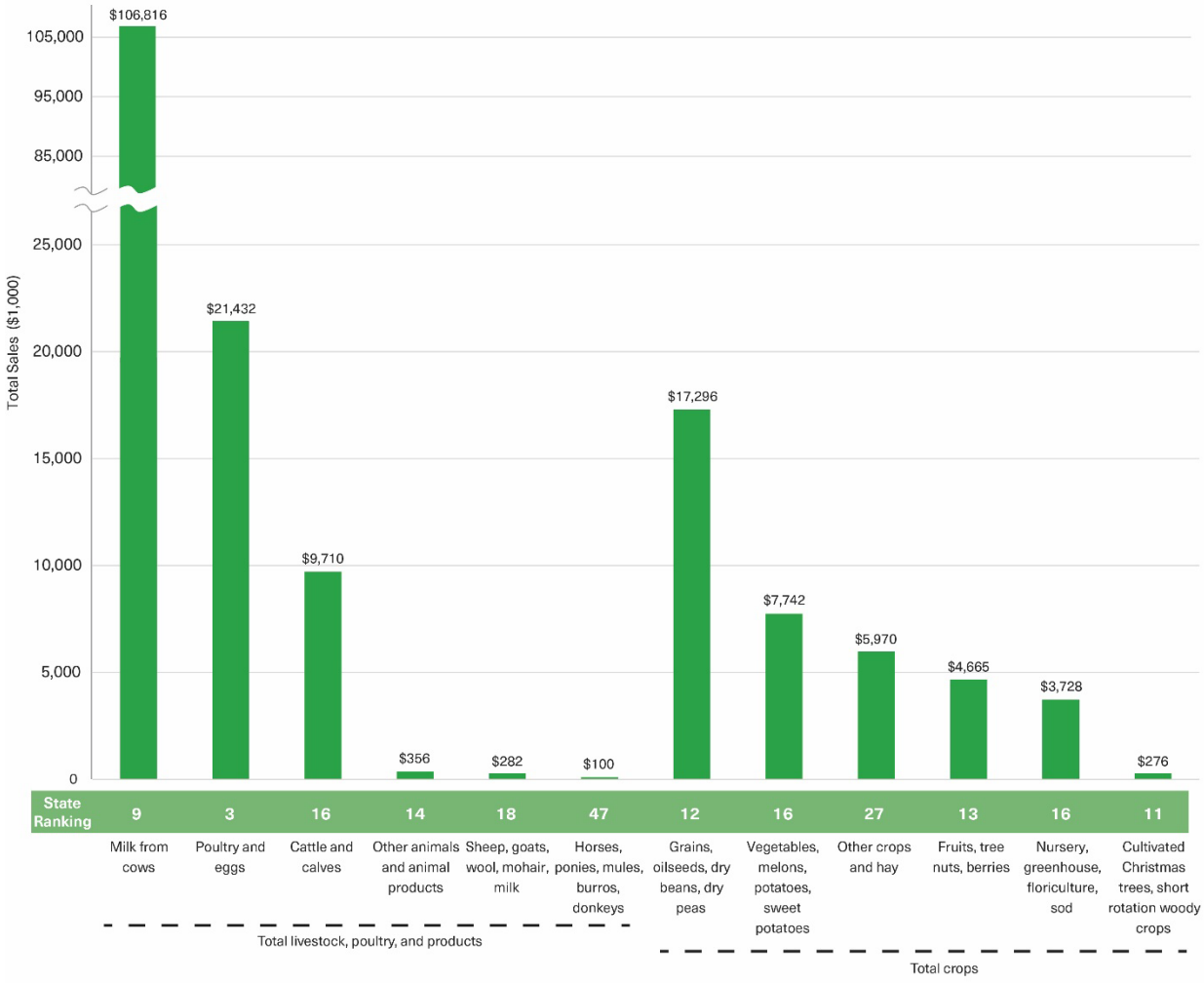
Sources: USDA NASS, 2002 and USDA NASS, 2017a.

From another perspective, from 2002 to 2012, there was a 50% loss in farm sales for medium sized farms while larger farms experienced a 24% gain over the same duration (Food Plan CNY, 2021; USDA NASS, 2022 and 2017a). Medium sized farms (those with $100K through $500K in sales) face increasing pressures to compete with larger commodity production operations (Food Plan CNY, 2021).

FARM PRODUCTS

Onondaga County is in the top ten counties for all agricultural sales in New York State (Office of the New York State Comptroller, 2019). Onondaga County's farm operations offer a diverse array of agricultural products, particularly in the types of crops grown. The total sales of agricultural products typically rank high in comparison to other counties across New York State, most notably in dairy and poultry. Figure 16 shows a breakdown of the market value of agricultural products sold in Onondaga County for 2017, and their state rankings.

Figure 20: Market value and statewide rank of agricultural products sold in Onondaga County



Source: USDA NASS 2017a. Note: Value of sales for Hogs and Pigs and Aquaculture operations has been withheld to avoid disclosing data for individual operations. Sales value is measured in 2017 dollars. State ranking is based on New York State's 62 counties.

Onondaga County farm operations are the enterprises behind one of the most productive agricultural regions in the state. Dairy is by far the highest commodity in the County by sales, making up over half of all agricultural sales in the County. Onondaga County ranks 9th in dairy production for New York counties, and in the top 5% of U.S. counties for milk production (USDA NASS, 2017a). Dairy sales are followed by poultry (12% of sales and 3rd most ranking of NYS counties) and grains/oilseeds/dry beans/dry peas (10% of sales and 12th in NYS) rounding out Onondaga County's top three agricultural products.

Proximity to markets coupled with its diverse natural landscape supports the production of specialty crops such as vegetables (4% of sales) and fruits/nuts/berries (3% of sales). There are also products that are not measured by sales in the USDA Agricultural Census. One such specialty crop is, maple syrup, which is a significant product of Onondaga County and New York State. In 2021, NYS was the second top producer of maple syrup of all 50 states (USDA NASS, 2021). Onondaga County's maple syrup garnered $750,000 in sales according to the NYS Maple Producers Association based on the USDA NASS 2017 maple syrup production levels. An additional up-and-coming crop to note is cannabis (both industrial hemp and adult-use cannabis). In February 2022 New York State passed a law creating a new Conditional Adult-Use Cannabis Cultivator license that will allow existing hemp producers with grower authorization to obtain temporary conditional licenses to cultivate and process adult use cannabis (New York State Office of the Governor, 2022). As of 2018, the Central New York region had only seen a handful of authorized research partners for hemp production, however that number will likely increase as people become more familiar with the crop and the policies related to its production (Syracuse Post Standard, 2018).

Figure 21: Animal and crop sales

	Sales value[5]	% of total
Total market value	$178,409,000	100%
Crop sales	$39,678,000	22%
Livestock sales	$138,731,000	78%

Source: USDA NASS, 2017a.

As reflected in Figures 16 and 17, a substantial share of the market value of Onondaga County's agricultural sector comes from livestock, and more specifically dairy. Livestock sales account for a greater proportion of total sales, since many field crops are not sold on the market but instead used to feed livestock. Livestock sales have been increasing as dairies consolidate. In 2017, Onondaga County had 25,553 dairy cows across 76 operations, with approximately 336 cows per operation (USDA NASS, 2017a).

The concentration of dairy operations has increased since the 2007 and 2012 agricultural census, which found 196 cows per farm and 280 cows per farm respectively. Of the total acreage of cropland harvested in 2017 (91,655 acres), the USDA estimates that more than one-third of the acreage was used for forage land (i.e., hay, haylage, grass silage, and green chop). Figure 18 shows the USDA's estimate for the top five crops by harvested acreage in Onondaga County in 2017.

Figure 22: Changes in harvested acreage of top crops between 2012 and 2017

Crop/cover	Acres		% change
	2012	2017	
Total harvested cropland in Onondaga County	94,478	91,655	-3%
Forage-land (i.e., hay, haylage, grass silage, green chop)	34,370	34,950	2%
Corn for silage or green chop	15,453	18,422	19%
Corn for grain	21,879	18,107	-17%

[5] Measured in 2017 dollars

Soybeans for beans	11,674	8,908	-24%
Wheat for grain, all	4,216	5,290	25%

Source: USDA NASS, 2012 and 2017a.

The farm average value of sales in Onondaga County is $286,371 (USDA NASS, 2017). However, this average sales per farm is likely inflated by a relatively small proportion of more profitable farm operations, as the net income per farm in Onondaga County was reported to be much lower (see Figure 19). Approximately 36% of all operations reported farm sales of less than $2,500, and an additional 31% reported sales of between $2,500 and $24,999. As a result, many farm businesses are reliant on farm-related income that is not generated by the direct sale of crops and livestock, but instead through avenues such as custom work, government programs, forest products, and building rentals. In 2017, Onondaga County farmers with such sources of income received an average of $33,512 (USDA NASS, 2017a).

Relatively low sales and increasing expenses result in most farm operations experiencing net losses of farm income. USDA's estimated net incomes, gains, and losses for 2017 are shown in Figure 19. This underscores the tight profit margins for agricultural operations and the need for affordable, innovative products, processes, or market development to increase profit margins (see also the Value-Added Economic Development Initiative Venture Proposal).

Figure 23: Farm operation income

Net cash farm income	2017
Net income of operations	$46,610,000
Average net income per operation	$74,816
Operations with gains	262
Average gains per operation	$223,074
Operations with losses	361
Average loss per operation	$32,784

Source: USDA NASS, 2017a. Note: dollar values shown here are measured in 2017 dollars.

One of several reasons for the low profit margins of farming is the continuously increasing cost of doing business. Figure 20 reflects farm production expenses in 2017, with an average value of expenditures per operation of $228,293. This average expense per operation has increased 181% since 1997, outpacing national averages of farm expenses which increased 124% during the same duration (USDA NASS 1997 and 2017a). The largest expense categories are feed and hired labor, both averaging more than $100,000 per farm with expenses in these categories.

Figure 24: Farm production expenses

Expense Category	Farms	Total Expenses	Average per farm
Feed	362	$39,280,000	$108,508
Labor	-	$22,245,000	-

Expense Category	Farms	Total Expenses	Average per farm
Hired	181	$21,261,000	$117,464
Contract	33	$984,000	$29,818
Ag services	-	$17,976,000	-
Custom work and custom hauling	123	$1,745,000	$14,187
Machinery and equipment rental and leases	53	$1,085,000	$20,472
Other	308	$11,761,000	$38,185
Utilities	474	$3,385,000	$7,141
Supplies & repairs (excl. lubricants)	538	$13,714,000	$25,491
Depreciation	324	$13,703,000	$42,293
Fuels (incl. lubricants)	595	$8,705,000	$14,630
Seeds & plants totals	282	$7,315,000	$25,940
Property taxes	601	$6,523,000	$10,854
Fertilizer totals, incl. lime & soil conditioners	307	$6,587,000	$21,456
Interest	200	$5,678,000	$28,390
Non-real estate	137	$3,146,000	$22,964
Real estate	137	$2,532,000	$18,482
Livestock and poultry purchased or leased	149	$3,947,000	$26,490
Other livestock and poultry	104	$3,229,000	$31,048
Breeding livestock	69	$718,000	$10,406
Chemical totals	276	$3,809,000	$13,801
Rent, cash, land & buildings	148	$2,869,000	$19,385

Source: USDA NASS, 2017a. Note: Values represent 2017 dollars.

LABOR AND SUPPORT RESOURCES

In 2017, 1,399 workers were hired to work either seasonally or year-round on farm operations, with approximately 47% of these workers working more than 150 days of the year (USDA NASS, 2017a). Of these hired workers, 301 migrant workers worked on 32 farms in Onondaga County. These hired migrant workers likely were hired through the H-2A Temporary Agricultural Workers program, which exists to bring in labor when there are not enough US workers who are able, willing, qualified, and available to do temporary work (USDA NASS, 2017a; US Citizenship and Immigration Services, 2022). Furthermore, many sole proprietorships on smaller farms do not have hired labor. In 2017, 313 farms reported having 670 unpaid workers (USDA NASS, 2017a). Note that these figures are likely undercounted total farm employment due to under-reporting among USDA Agricultural Census survey respondents.

Most hired farmworkers work full time, and some work more than 40 hours per week (US Department of Labor Bureau of Labor Statistics, 2020a). In May 2020, Central New York region farmworkers on livestock operations had an annual mean wage ranging from $34,210 to $48,160, while farmworkers on cultivated operations had an annual mean wage ranging from $32,680 to $44,680 (US Department of Labor Bureau of Labor Statistics, 2020a). Regarding staff size, most Onondaga County farm operations with hired staff employ between one and four hired farmworkers (Figure 21).

Figure 25: Farm operations by size (hired staff)

Farm size	Number of Farms	% of Total Farms with Hired Staff
Total farms with hired labor	181	-
Farms with 1 worker	40	22%
Farms with 2 workers	38	21%
Farms with 3 to 4 workers	46	25%
Farms with 5 to 9 workers	24	13%
Farms with 10 or more workers	33	18%

Source: USDA NASS, 2017a.

Agriculture was a growing sector from 2015 to 2020 in Onondaga County according to a recent analysis conducted in the development of the Onondaga County Comprehensive Plan, with an increase of roughly 50 jobs (EMSI, 2020). Specifically, the following agricultural and food-related sectors employed more individuals as a share of the overall County employment than national employment rates, as indicated by their employment location quotients greater than one[6]

- specialty food stores (1.81)
- grocery and related product wholesalers (1.78)
- dairy product manufacturing (1.71)
- cattle ranching and farming (1.53)
- grocery stores (1.36)
- alcoholic beverage retailers (1.30)
- support activities for animal production (1.06).

The agricultural labor sector in Onondaga County faces many challenges. Overall, there is a labor shortage. Due to the low income and financial risks of farming, fewer young people within farming families are remaining in the family businesses (see the Demographic Overview section in the Agricultural Community

[6] Beverage manufacturing and fruit & vegetable preserving also employed more individuals as a share of the overall County employment than national employment rates, however, due to the small number of establishments, total employment data is not disclosed due to confidentiality concerns (US Department of Labor Bureau of Labor Statistics, 2020b).

Profile and the Farm Succession section in this profile for more discussion). Agricultural workers face low wages, long workdays, and difficult working conditions across the country. Many farms require the use of the federal H-2A program to bring in able, willing, qualified, and available migrant or immigrant farmworkers. Besides the normal challenges of the work, these migrant farmworkers face complications from language barriers, lack of adequate transportation, isolation from the broader community (in the case of those living in on-farm housing), and immigration policy (Fox et al., 2017). To address these difficult working conditions, the Farm Labor Wage Board, as part of their authority under the 2019 New York State Farm Laborers Practices Act, made a resolution to phase in a 40-hour work week for farmworkers by 2032, lowing the threshold by four hours per week every two years beginning January 2024 (anything over 40 hours will require overtime pay) (New York State Department of Labor, 2022). This recent change has sparked concerns from farm operators, who already faced labor shortages while balancing the increasing labor costs with the slim profit margins of farms, all while retaining a quality workforce here in NY (workers may easily choose to work for higher earnings in other states that participate in the federal H-2A program for immigrant and migrant farmworkers but do not require a 40-hour work week). In addition, federal policies relating to visas and other immigration programs have increased restrictions on migrant workers.

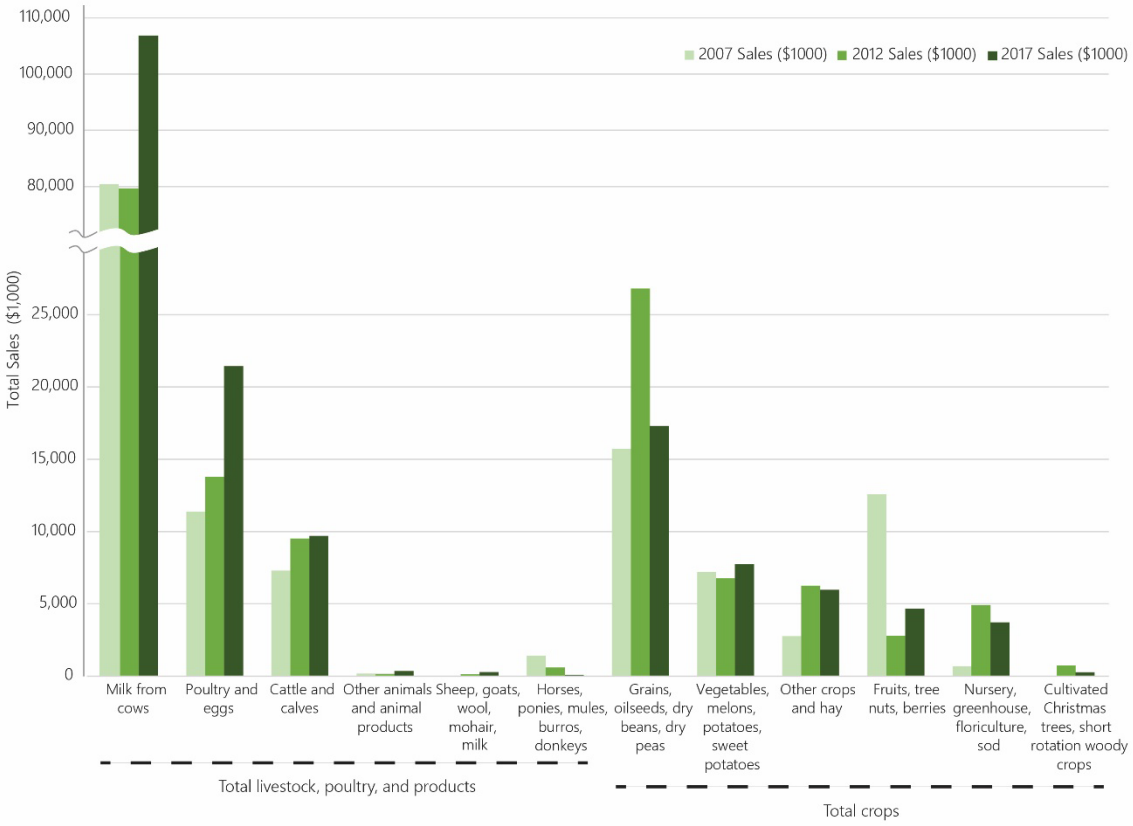
As labor and related technology needs continue to evolve, many of the needed workforce skillsets in agriculture will likely evolve as well. This may help to expand the potential workforce. For example, increased job opportunities in warehouse distribution and drone technology may spill over into the agricultural sector as well and help attract people who would have otherwise not considered a career in agriculture. Moving forward, a resilient agricultural workforce will be contingent on reaching all potential workers, the ability of farms to pay workers competitive wages while providing adequate support resources, including job and safety trainings, quality housing/transportation, and safe and healthy working conditions. Much of this is contingent on federal immigration and farmworker policies as well as the price of food.

LOCAL AGRICULTURE MARKET TRENDS

Unlike most industries, farm income is very unstable from year to year. Farmers are particularly susceptible to changes in income due to weather conditions that affect crop output, yearly variations in market prices of agricultural products, and rising costs for maintenance and farm technologies. Yet Onondaga County agriculture as a sector has been consistently growing for Onondaga County's economy over the past 15 years, most recently producing $178 million in annual sales from a total of 623 farms (USDA NASS, 2017a). This is up 23% from 2007 (USDA NASS, 2007).

As demonstrated in Figure 22, dairy has been a primary driver of this growth, due to its significant market share of agricultural products and 27% growth in sales between 2012 and 2017 (USDA NASS2012; USDA NASS, 2017a). Poultry and egg sales have also consistently grown over recent years. This trend of dairy sales aligns closely with New York as a whole. New York has more than 35,000 farms covering 7.3 million acres, nearly one quarter of the state's land area. New York's U.S. rankings rose in 2017 compared to 2011 in milk, snap beans, and maple syrup. In 2019, New York State produced 820,000 gallons of maple syrup, marking a 75-year record (NYS Department of Agriculture and Markets, 2020). Milk is by far the state's largest agricultural commodity, with $2.7 billion in sales in 2017, more than half of the total for all agricultural products (Office of the New York State Comptroller, 2018).

Figure 26: Changes in Crop Sales by Product



Source: USDA NASS, 2007, 2012, and 2017a. Note: dollar values do not account for yearly price inflation.

Agriculture provides approximately 2.1% of the total taxable sales in Onondaga County, which is a slightly lower ratio than that of New York State as a whole (2.5%, Schmidt 2019). Albeit a relatively small share of the county's total sales, dollars received in agricultural sales are important and cause ripple effects to the broader economy. The economic impact is especially important to consider for rural communities.

The USDA's Local Food System Economic Impact Calculator is a useful input-output model that can determine the ripple effects that agricultural sales can have in a local economy. The upper bound of economic impact that agriculture sales have in Onondaga County, based on 2017's total agricultural sales, is estimated to be $282,231,240 annually (USDA Agricultural Marketing Service & Colorado State University, 2022). This is a rough estimate that includes direct effects (e.g., sales farmers make at a market) as well as

indirect effects (e.g., how farmers spend those extra revenues by hiring or paying a local business to help them move product).[7]

Recently, an evaluation was conducted to assess the indirect and induced economic impacts from sub-sectors of agriculture across New York State. Through the single economic multiplier for all agricultural output sales in New York State was calculated to be 1.49; meaning that for every dollar directly generated in NYS agriculture, $0.49 are indirectly generated in NYS (non-agricultural) businesses (Schmit, 2021). These indirect impacts represent a combined effect due to business-to-business activity and labor income spending (Schmidt, 2021).

Additional market trends to consider are the types of markets in which farm operations participate. Onondaga County's agricultural operations are proportionally strong in direct sales (selling directly to consumers via farmers markets, farm stands, CSAs, etc.) and direct wholesale (selling directly to local restaurants, grocers, institutions, etc.).

Figure 27: Direct market participation (retail and wholesale)

Retail Direct Market Participation	United States	New York	Onondaga County
Number of Farms	130,056	5,697	132
Percent of Farms (%)	6.4%	17.0%	21.2%
Total Sales	$2,805,310,000	$222,711,000	$4,361,000
Percent of Sales (%)	0.7%	4.2%	2.4%
Sales Per Capita	$8.57	$11.40	$9.44
Wholesale Direct Market Participation	**United States**	**New York**	**Onondaga County**
Number of Farms	28,958	1,587	37
Percent of Farms (%)	1.4%	4.8%	5.9%
Total Direct Market Sales	$9,036,103,000	$316,286,000	$25,069,000
Percent of Sales (%)	2.3%	5.9%	14.1%

Source: USDA NASS 2017a.

Agritourism (agriculture tourism) is an additional market that has become more popular in recent years, both nationally and locally. Agritourism sites can include wineries, farmers markets, pumpkin patches, farmsteads, apple orchards, and more – all of which can be found in Onondaga County. Because agritourism is a relatively new term, the USDA NASS Agricultural Census only recently started measuring it. While it likely underestimates the total rate of agritourism in the county, it may provide a point of comparison to other geographies. According to the 2017 Central New York Regional Recreation and Heritage Plan, there are 19 agritourism sites in the county and since then the total numbers have likely increased. Major local destinations include u-pick fruit or vegetable operations like Tim's Pumpkin Patch and music venues like

[7] As noted on its website, the calculator may underestimate economic impacts of agriculture in NYS, due to the state's high population levels, strong agricultural sector, many input suppliers, and strong local labor market.

Beak & Skiff. Benefits of agritourism includes its role as an additional revenue source for farmers and its ability to improve the public awareness about the importance of local agriculture.

According to the USDA NASS Agricultural Census, the rate of Onondaga County farms with agricultural tourism sales is nearly identical to national levels (1.4% of farms), but lower than the New York State overall (2.5% of farms). Meanwhile, Onondaga County's agritourism brings in twice the revenues compared to US rates of agritourism, but less than New York State. On average, a farm participating in agritourism generates about $101,000 in sales, which is much higher than a typical agritourism operation in New York State or in the US overall (see Figure 24). Perhaps a way to explain this higher rate of revenues per farm in Onondaga County is that there are fewer smaller scale operations participating in agritourism in locally than compared to other places. This indicates that Onondaga County may have room to build up small scale agritourism to mirror the rates of agritourism participation and revenues throughout New York State and the US. More information about the planning considerations for agritourism can be found in the Appendix B Farm Friendly Toolkit.

Figure 28: Participation in agritourism

Agritourism Market Participation	United States	New York	Onondaga County
Number of farms	28,575	826	9
Percent of farms (%)	1.4%	2.5%	1.4%
Total agritourism sales	$949,323,000	$36,847,000	$907,903
Average value of agritourism sales per farm	$33,222	$44,609	$100,878
Agritourism revenue for every $100,000 in total agricultural sales	$2.44	$6.86	$5.09

Source: USDA NASS, 2017a. Note: the USDA Agricultural Census provides a Coefficient of Variation (CV) measure of uncertainty for estimates. In this case, Onondaga County has a 53% CV for 2017 agritourism sales, indicating a relatively high amount of uncertainty in the data compared to the US (2% CV) and New York State (12% CV). Measures of agritourism are only measured for farm operations if receipts of sales can be provided.

An additional type of agricultural market trends to consider are value-added products, which can enable farmers to increase profit margins if done effectively. Value-added products refer to changes to the physical state, form, or production of the product in a manner that enhances its value. Examples include making apples into pie or obtaining organic crop certification.

Many more Onondaga County farms have some form of value-added product sales compared to national and statewide rates; however, total dollars from value-added sales are relatively low for Onondaga County falling under statewide rates and only slightly higher than national rates. This suggests there may be more profitable innovations of current value-added products, such as producing higher-price point products, packaging products more efficiently and selling products to higher paying purchasers (for example local higher educational institutions that could purchase in bulk). Large-scale investments should be linked with feasibility studies prior to implementation to make sure investments are viable for the market.

Figure 29: Participation in value added production

Value-Added Market Participation	United States	New York	Onondaga County
Number of Farms	33,523	1,977	51
Percent of Farms (%)	1.6%	5.9%	8.2%
Total Sales	$4,043,356,000	$182,305,000	$4,454,000
Percent of Sales (%)	1.0%	3.4%	2.5%

Source: USDA NASS, 2017a.

Despite the production and strong economic base in Onondaga County, there remains an unmet demand for certain types of agricultural produce, specifically local meats, poultry and eggs, and fruits and vegetables. Figure 26 illustrates the results of a surface-level analysis of the demand for local agricultural products within Onondaga County. This analysis describes local production and market demand in four ways:

- Local quotient is the percentage of category food sales produced within the area (in this case, Onondaga County). Location quotients identify export industries in an area (those industries producing more of a good or service than is needed to meet area demand) and import industries (those producing less than enough to meet area demand). A result of greater than 100% indicates that local demand could be met entirely with local production if it were directed to these markets through a local food system.
- Local food demand is the approximate value of category wholesale sales which could come from local sources if supply were available.
- Local food supply is the approximate value of category wholesale sales produced within the area based on the county-level local quotient, some of which may be shipped to other states.
- Unmet market for local food is the difference between the value of local food demand and area production (supply) in the chosen categories.

The analysis summarized in Figure 26 relies partially on statewide data, therefore an additional investigation of regional productive capacity and consumer purchase intent (and the gap between these two metrics) that is specific to Onondaga County and/or Central New York is required. Nonetheless, the magnitude of the potential market for local food shown here suggests that the marketplace could accommodate more production of poultry and eggs, and significantly more production of local fruits, vegetables, and meats.

Figure 30: Potential unmet market demand for local food in Onondaga County

	Dairy	Poultry & eggs	Fruits & vegetables	Meat
Local quotient	214 %	59 %	12 %	12 %
Local food demand	$ 48,000,000	$ 20,000,000	$ 140,000,000	$ 44,000,000
Local food supply	$ 100,000,000	$ 12,000,000	$ 17,000,00	$ 5,500,000
Unmet market for local food	See note*	$ 8,100,000	$ 120,000,000	$ 39,000,000

Source: New Venture Advisors (2018) Note: Per New Venture Advisors, in this instance, local demand could be fully met with local supply if it were directed to these markets through a robust local food system.

According to Food Plan CNY, urban agriculture and community gardening in Syracuse has expanded over the past decade providing new sources of food to consumers, often in the form of fruits and vegetables. This is one of many potential avenues for meeting local demand for these products. The Brady Faith Community Supported Agriculture and community gardening through Syracuse Grows are two programs that increase access to local fruits and vegetables to meet local demand.

TECHNOLOGY

Although agriculture has a reputation as being an established and traditional industry, the sector is always innovating and will continue to innovate into the future using technology. To meet rising demand in the future with a shift in workforce, climate change challenges, and limitations in the natural environment, technology will continue to drive agricultural innovation to create new types of products, develop efficiencies in food systems, and foster new synergies between industry sectors.

Recently an examination of New York State's Agrifood System revealed that large scale investments in NY were occurring in the following ways: indoor farming, consumer packaged goods and food delivery services, and food safety technologies to improve traceability, logistics, and transport (Grow-NY, 2021). This report also identified a gap in investment for robotics, despite the numerous benefits that it can provide given current and anticipated labor shortages in the future[8]. The farm robotics category is large, including technology-enabled mechanical harvesters, drones, and autonomous robots. For now, however, robotics and automated harvesting are still some distance away from widespread, practical applicability across all sectors in New York State (Grow-NY, 2021). Technologies like drones and robotics are important to certain types of agriculture in Onondaga County as they are used in precision technology (e.g., pesticide/fertilizer application), palletizers, and milk processing.

Broadband access is more important than ever, with internet being a key tool for marketing, participating in retail, and reaching customers. Despite this, as of 2019, over 11 million Americans in rural areas and over 846,000 Americans in tribal lands lacked access to broadband that meets the federal definition for minimum standards (National Association of Counties, 2019). While Onondaga County is relatively connected to broadband compared to other areas of the country, there are still anywhere from 17- 21% of households without broadband access (National Association of Counties, 2019). Recently Onondaga County used the Coronavirus State and Local Fiscal Recovery Fund (Recovery Fund), part of the American Rescue Plan Act (ARPA), to invest $15 million to bridge this digital divide and provide equal access to broadband in all areas of the county currently not served by providers.

LAND VALUE DYNAMICS

MUNICIPAL FISCAL IMPACTS

Conversion of agricultural land can have significant impacts for rural and suburban municipalities facing growth pressure. Fragmented, unplanned development of farmland can create inefficiencies in services, and environmental impacts such as traffic congestion, air and water pollution, loss of open space, and increased demand for costly public services. Outward growth of land development, often in the form of residential

[8] Over the past two years, Grow-NY has funded start-up business awards for companies working in farm robotics, ag-related biotechnology, food safety technology, and more.

roadside development and subdivisions, into rural and suburban communities, predominantly in the form of residential development, is sometimes characterized as growth beneficial to a community's tax base, rather than agricultural uses, when the opposite is often the case. According to a 2016 report from the American Farmland Trust, specific misconceptions about farmland as it applies to municipal finances include:

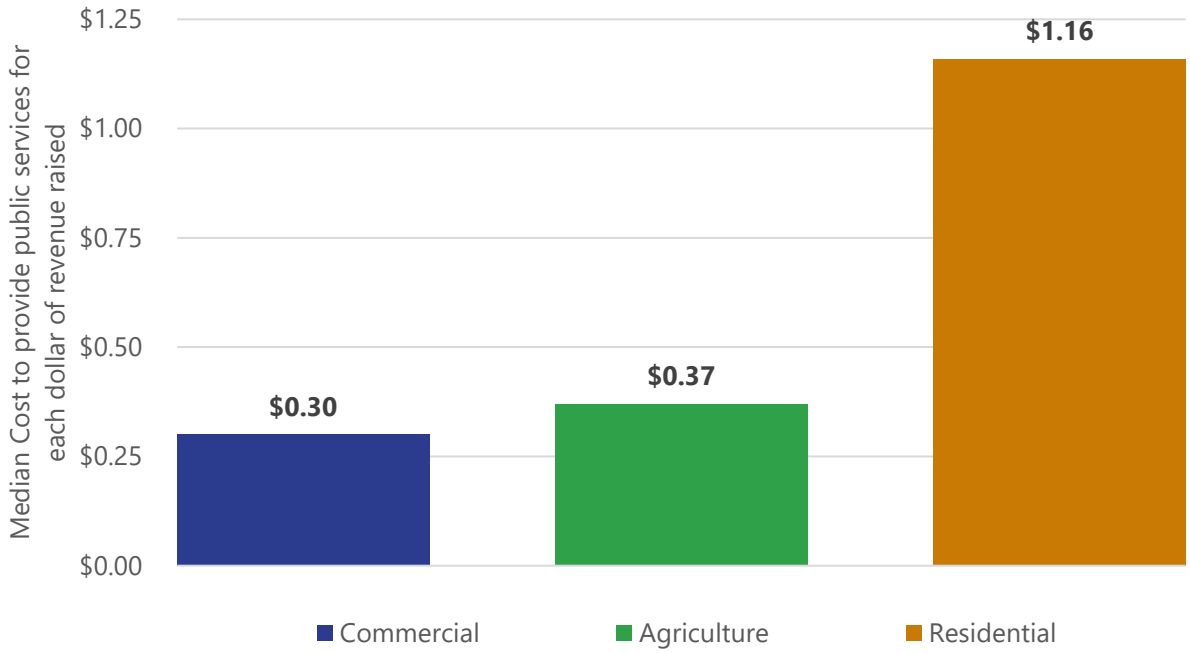
- Myth 1: Open lands, including productive farms and forests, are an interim land use that should be developed to their "highest and best use."
- Myth 2: Agricultural land receives unfair tax breaks when it is assessed at its current use value for farming instead of at its potential use value for residential or commercial development.
- Myth 3: Residential development will lower property taxes by increasing the tax base.

Working lands and open space may generate less revenue than residential, commercial, or industrial properties, but they require minimal public infrastructure and services. A tool to examine the cost of community services was developed by the American Farmland Trust to consider how much agricultural

lands contribute to the local tax base through comparative revenue-to-expenditure ratios to other land use classifications (i.e., residential, commercial, and industrial). As of 2016, over 150 of these studies had been conducted across the United States with 12 occurring in New York municipalities (American Farmland Trust, 2016). Following national trends, the studies across New York State municipalities indicate that working lands generate more public revenue than they receive back in public services. Their impact on municipal budgets is like that of other commercial and industrial land uses, with a much lower revenue-to-expenditure ratio. Median revenue-to-expenditures for land uses across these NYS municipalities are as follows: 1:1.25 for Residential, 1:0.26 for Business (Commercial + Industrial), and 1:0.29 for Agriculture (Working & Open Land).

Residential land uses have high infrastructure costs, and consequentially must be subsidized by other community land uses like agriculture or business. Therefore, converting agricultural land to residential land use should not be viewed as a solution to increase municipal revenue. The Farm Friendly Toolkit for Municipalities further outlines methods for local governments to protect farmland and opportunities to increase local viability (Appendix B).

Figure 31: Median cost of community services nationally by land use types



Source: American Farmland Trust. 2016. Cost of Community Services Studies Fact Sheet and Technical Memo. Available at https://farmlandinfo.org/publications/cost-of-community-services-studies/ (Accessed January 9, 2021).

TAXATION OF AGRICULTURAL LAND

While property taxes in New York State are the 14th highest in the US (Tax Foundation, 2021), there are a variety of tax programs that work together to protect farmland. For newly constructed or reconstructed agricultural structures, New York State Real Property Tax Law allows a ten-year property tax exemption. Once granted, the exemption continues automatically for ten years pending no changes in use as a farming operation or conversion to a non-agricultural or non-horticultural use.

An additional opportunity for farmers to protect their farmland is through agricultural assessments. Agricultural assessments allow property owners to receive a property tax reduction for land in agricultural production by limiting the assessment to only the value of land in agricultural production, rather than its full development value. Onondaga County Real Property Tax Service parcel data indicates that approximately 1,385 individual property owners claimed an agricultural use value exemption in 2020.

An agricultural assessment applies to school, County, and town property taxes, and is based on the soil types on the farm. Agricultural assessments are limited to land used for agricultural production including cropland, pasture, orchards, vineyards, sugarbush, support land, and crop acreage either set aside or retired under Federal supply management or soil conservation programs. Up to 50 acres of farm woodland is also eligible for an agricultural assessment per eligible tax parcel. Further, land and water used for aquaculture production are eligible, as is land under a structure within which crops, livestock or livestock products are produced. Land visibly associated with the owner's residence is ineligible. The Onondaga County Soil and Water Conservation District will work with landowners to calculate acreage of agricultural soil groups.

Once a parcel, or any portion of it, is determined eligible for an agricultural assessment, the local assessor calculates such assessment by multiplying the acreage in each soil group and farm woodland by the applicable assessment value. The final assessment figure is the sum of the values multiplied by the municipality's most recent State equalization rate or special equalization rate,

If property with an agricultural assessment is converted into a nonagricultural use[9], a payment is imposed to recapture the taxes forgone for converting such land. Assessors determine whether a conversion has occurred based on case-by-case basis. Conversion, as defined by New York State Department of Taxation and Finance, is, "an outward or affirmative act changing the use of agricultural land." These payments generally become the responsibility of the landowner at the time of conversion. Non-use of the property, such as, abandoning land or leaving it idle, disqualifies the property owner from receiving an agricultural assessment, but is not considered a conversion.

SOLAR AND OTHER RENEWABLE ENERGY DEVELOPMENT

New York State, including Onondaga County, is experiencing a large increase of utility solar energy development (systems producing 1 megawatt of solar energy or more). The demand for solar energy has been largely driven by increased efficiency within the panel technology, as well as New York State's renewable energy policy goals aimed at reducing greenhouse gases. Utility scale solar energy is land intensive, requiring on average five to ten acres of land per megawatt[10]. Developers often select agricultural land for solar installations due to its flat topography, minimal need for land clearing, and proximity to roads and transmission infrastructure. Approximately 40% of utility scale solar energy development in NYS occurs on agriculture lands and is anticipated to increase without any policy intervention.[11]

Solar energy in agricultural areas can result in negative impacts on the soil integrity of the land, as well as farmers and the agricultural industry. Utility scale solar, when developed in the traditional manner, removes agriculture from production. While some developers have co-located solar utilities and uses on the same site (e.g., using land for sheep grazing or creating pollinator habitat), land used for utility scale solar energy is more commonly removed entirely from agricultural production. Although there are decommissioning guidelines developed by New York State Department of Agriculture and Markets[12], soil disturbance resulting from the construction of solar facilities can compromise the long-term productivity of soil due to compaction, fill, and mixing soil layers. Further, solar energy development on farmland can impact the way in which the land's taxable value is assessed (see Municipal Fiscal Impact section of this Economic Profile). If the primary use of the parcel changes from agriculture to energy production, the property owner will lose their agricultural tax exemptions.

---

[9] Conversion penalties apply if uses are converted within five years of last receiving an agricultural assessment if located in an agricultural district and within eight years of last receiving an agricultural assessment if located outside an agricultural district

[10] Syracuse Onondaga County Planning Agency. 2021. Solar Energy Best Management Practices for Agriculture-Friendly Projects. Available at: http://ongov.net/planning/documents/AgBestPractices05112021.pdf (Accessed February 2022).

[11] Katkar, V.V., Sward, J.A., Worsley, A., and Zhang, K.,M. 2021. Strategic land use analysis for solar energy development in New York State. Renewable Energy 173:861-975 Available from: https://www.sciencedirect.com/science/article/abs/pii/S0960148121004900 (Accessed February 2022)

[12] New York State Department of Agriculture and Markets. 2019. Guidelines for solar energy projects – construction mitigation for agricultural lands. Available at: https://agriculture.ny.gov/system/files/documents/2019/10/solar_energy_guidelines.pdf (Accessed February 2022).

If coordinated carefully between developers and landowners, solar energy can provide consistent supplemental income for farm operations to remain viable during difficult market changes. Solar energy is relatively environmentally benign: provides valuable renewable energy to address climate change, does not generate on-site pollution, and maintenance does not require extensive truck traffic. However, on the other hand, solar energy can offer high value lease payments that are hard for farmers to refuse. This in turn can further drive the conversion of farmland, removing land from production and driving up the value and price of leasing agricultural lands. More expensive land prices can in turn make it even harder for the farming community to access land. Local land regulations can be used to facilitate a balance between agriculture and solar development. Local regulations can encourage the use of marginal farmland soils or non-agricultural areas for siting solar facilities and promoting dual uses on lands (i.e., co-located agriculture). The Farm Friendly Assessment Appendix provides additional information about how municipalities can work towards protecting farmland in balance with solar development.

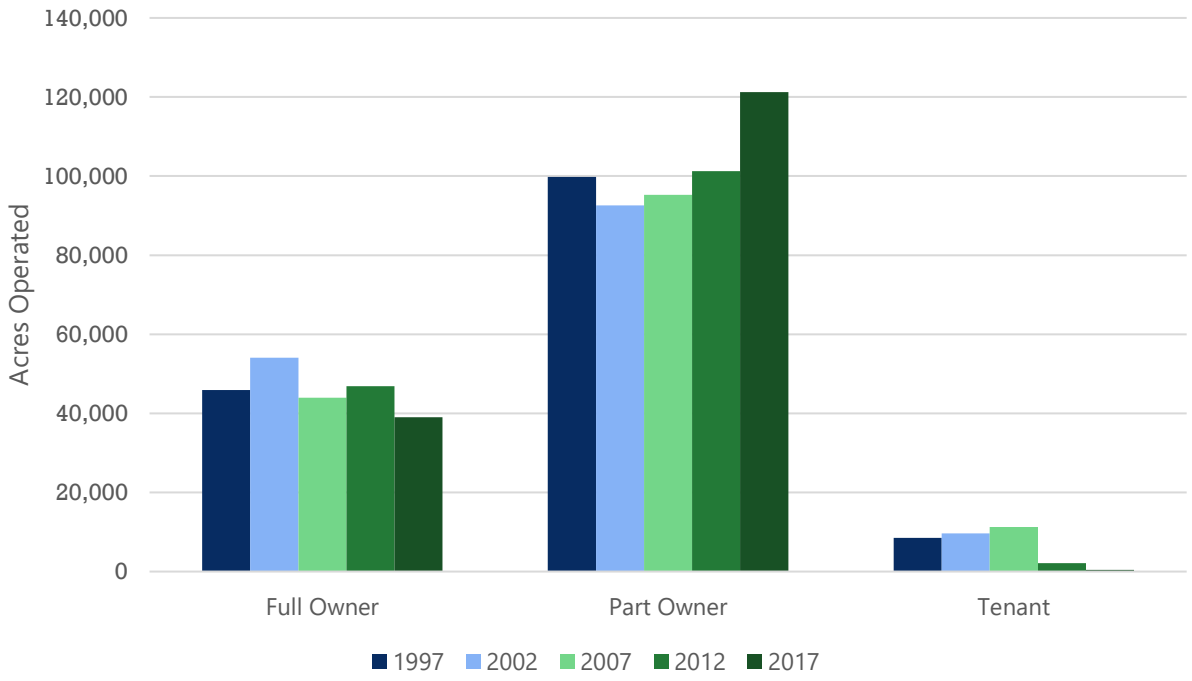
NYS regulations are evolving. The 2019 Climate Leadership and Community Protection Act (CLCPA) set forth a goal of having a minimum of 70% statewide electricity consumption from renewable sources by 2030 and emission-free by 2040. Under this act, the permitting of large-scale renewable energy projects (over 20-25MW) was expedited from the previous Article 10 permitting process to the more streamlined Section 94-c process. Through this process, solar developers must submit an agricultural plan to avoid, minimize, and mitigate agricultural impacts to active agricultural lands, consistent with NYS Department of Agriculture and Markets Guidelines to the maximum extent possible (New York State Office of Renewable Energy Siting, 2021). Recently, American Farmland Trust released policy recommendations for a solar siting mitigation framework, ideas on how to increase agrivoltaic projects, and other recommendations designed to encourage solar developers to site projects in ways that strengthen farm communities and protect farmland (American Farmland Trust, 2022). Having siting tools that can consider projected capacities across regions, along with areas that are best suited for solar and agriculture, will further improve the ability to balance solar development while strengthening agricultural viability.

LAND OWNERSHIP TRENDS

To examine land ownership trends, the USDA Census of Agriculture classifies farms by tenure of producer. The classifications are defined as: (1) *Full owners* who operated only land they owned; (2) *Part owners* who operated land they owned and also land they rented from others, and (3) *Tenants* who operated only land they rented from others or worked on shares for others. Over the past 20 years, the renting or leasing of agricultural land has increased (Figure 28). While the total amount of operational agricultural lands in full ownership has decreased, the total amount of operational agricultural land in part ownership has increased. Typically, part owners own about 60% of the land with the remaining portion rented from others (the ratio between land owned and land rented has not changed).

Understanding the trends in leased farmland is important to consider in the context of land value and farm production. While leasing provides flexibility for farmers to "right-size" their operations, an overabundance of leased land can create a degree of uncertainty. For example, if landowners decide to take land out of production for non-agricultural uses, such as solar or residential, this can drive up land prices for farmers leasing lands elsewhere. For the purposes of this report, however, ownership data of leased lands is not available, and additional analysis of this trend and its impact on land value is warranted.

Figure 32: Area of agricultural land in operation by land tenure



Source: USDA NASS 1997, 2002, 2007, 2012, and 2017a. Note: the USDA Agricultural Census provides a Coefficient of Variation (CV) measure of uncertainty for estimates. In this case, the 2017 tenant estimates had a 59% CV, indicating a relatively high amount of uncertainty in the data compared to the full owner and part owner metrics for the same year.

FARM SUCCESSION

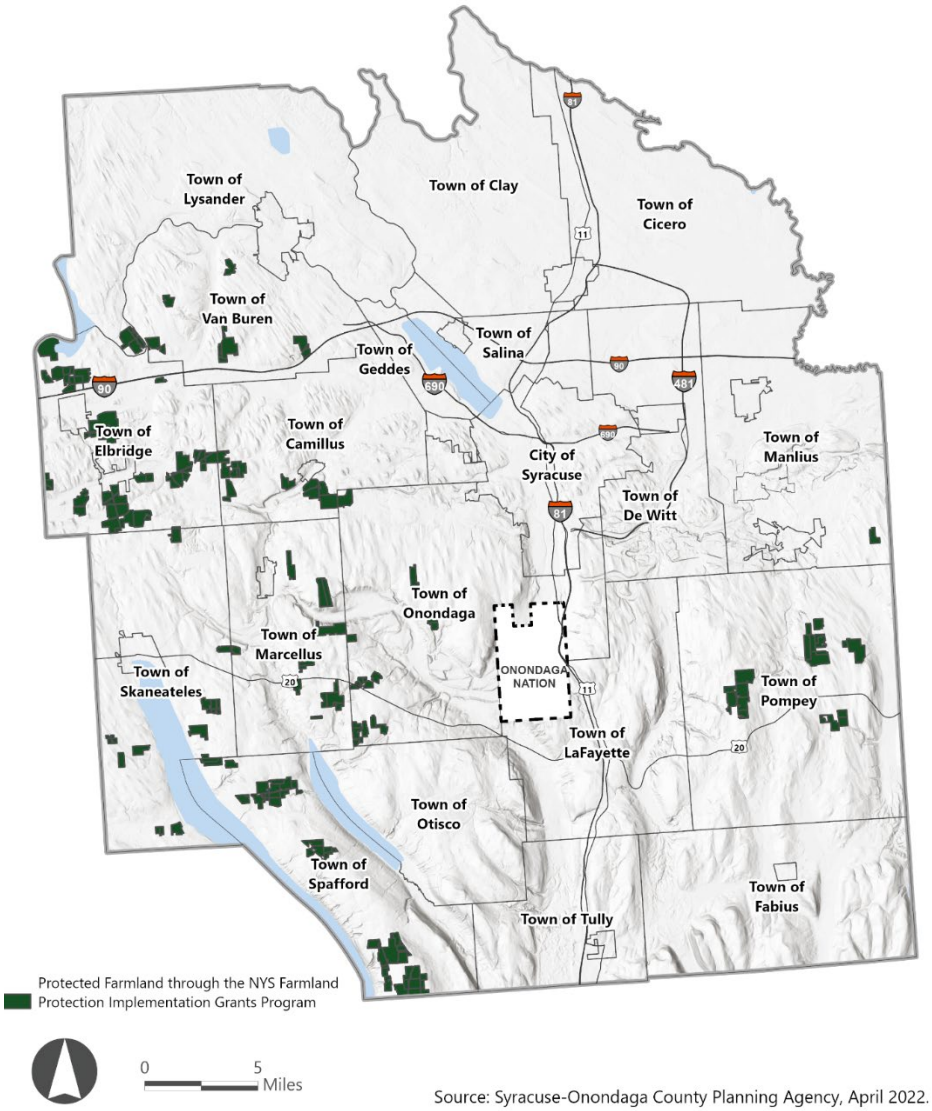
An estimated 70 percent of U.S. farmland will change hands over the next 20 years, but many family operations do not have a succession plan that identifies a next generation farmer who is skilled in or willing to continue farming (USDA National Institute of Food and Agriculture, 2022). This trend should be anticipated in Onondaga County due to an aging farmer population, as discussed in the Demographic Overview of the Community Profile. If a farm has not adequately planned for succession, it is likely to go out of business, be absorbed into ever-larger farming neighbors, or be converted to non-farm uses.

Fortunately, many tools exist to help manage these transitions of ownership through farm succession planning, as specified in the Farm Friendly Toolbox portion of this plan. These tools include range from actions that can be initiated by farmers themselves, like master planning for future subdivision strategies and applying for farmland protection easements, to others that require the involvement of municipalities (e.g., conservation subdivisions or fixed ratio/density averaging zoning). While there is no one single approach to succession planning, developing a plan requires a team of trusted professionals who can help navigate the process. Additional resources include the Farm Bureau, the FPIG program, and in the Farm Friendly Municipal Toolkit, specifically in the Farm Master Plan section.

ANALYSIS OF IMPORTANT FARMLAND

Onondaga County is engaged in a number of farmland protection activities, but perhaps the most important one is the Farmland Conservation Easements Programs. Commonly known as the "Purchase of Development Rights" (PDR) program, farmland conservation easements are voluntary legal agreements that restrict the development and subdivision of land, either as a donation or through monetary compensation, with the goal of preserving land suited for farming. New York State has offered Farmland Protection Implementation Grants (FPIG) program since the 1990s for easement projects. Onondaga County has been an active partner in facilitating farm owner access to the program and is a leader in New York State. To date, over 10,000 acres have been permanently protected. See Map 5 for an overview of these locations across Onondaga County, particularly in its southern portion.

Map 5: Protected Farmland in Onondaga County as of April 2022



Source: Syracuse-Onondaga County Planning Agency, April 2022.

A key requirement of the state program application is endorsement of the project by the Onondaga County Agriculture & Farmland Protection Board (AFPB). As interest in the program has increased, the APFB has developed a pre-application process for interested farm owners to identify the most viable and competitive lands to receive endorsement and undertake the full state application process. Additionally, the New York State Department of Agriculture and Markets requires recipients of the Farmland Protection Planning Grants Program funds to identify lands that warrant protection measures because of their contribution to regional agricultural viability. It is the intent of the maps in this section to provide guidance to the AFPB, local land trust partners, and others interested in land protection efforts to best strategize farmland protection in Onondaga County. Important farmland, as defined in this mapping analysis, includes those with the highest soil value, those in proximity to other viable farm clusters, those also hosting natural resources, and land near development pressures. These are the lands that are most important to when strategizing farmland protection efforts.

To identify the County's most beneficial farmlands and areas of interest related to farmland protection efforts and programs, a GIS-based mapping analysis was conducted that considers each of the following four focus areas:

- Farmland with valuable soils, specifically prime, statewide important soils, and prime if drained. These are soils known to result in the best overall crop yields throughout the state.
- Factors of natural resources as they occur on farmland including wetlands, floodplains, and other protected areas. Protecting farmland often means the protection of these natural resources.
- Areas of dense agricultural activity. These vibrant areas of farmland are characterized by their proximity to other agricultural lands.
- Farmland vulnerable to development as defined by the land's exposure, susceptibility, or capacity for the conversion of agricultural land to other more intensive uses, such as residential or commercial development.

Each of these analyses have been combined to result in an overall scoring system of important areas of farmland throughout the County. The results of this analysis can assist the County and municipal decision-makers to better understand the impact of land use decisions on issues of resiliency and the long-term viability of the regional agricultural sector.

The county is also anticipating this data being presented in the form of an online mapper that is easily updated as conditions change. This mapper tool will be updated regularly and posted for use by the public and municipalities in a variety of ways, such as municipal farmland protection efforts and other land use decisions that may impact farmland at the local level.

For these analyses, "farmland" is defined as tax parcels that have received agricultural use value assessments, along with all parcels classified as agricultural land in the 100-level category, along with residential parcels with agriculture (241) or abandoned agricultural parcels (321), as well as farmland visible via satellite imagery and farmland protected via conservation easements. For a full description of the methodology, refer to: **[link TBD].** This methodology was prepared by the Planning Team with guidance and confirmation from the AFPB. An overview of scores for each category and the combined overall score is as follows:

SOIL VALUE INDICATORS

Prime Soils

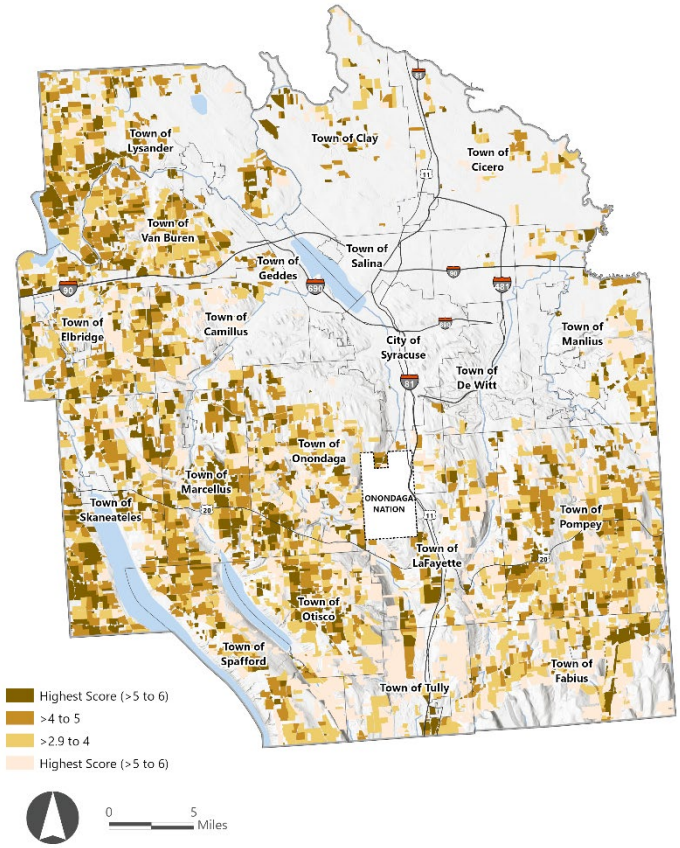
Prime Soils if Drained

Farmland of Statewide Importance

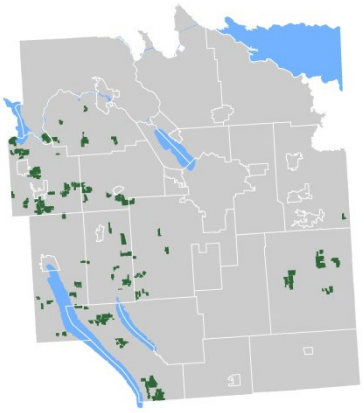
Source: USDA, NRCS, SSURGO Soils, 2016

Map 6: Analysis of farmland by soil value

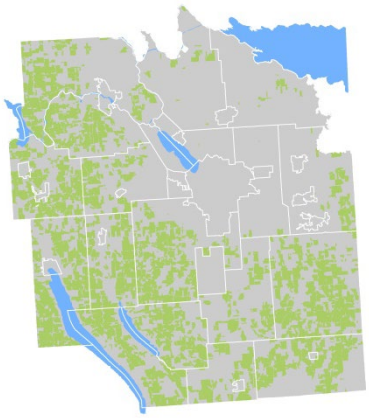
Agricultural lands shown in the darkest brown in Map 6 are areas are those with the highest "score". These areas should be prioritized by Onondaga County agencies and support organizations for policies and other measures oriented toward areas of high value agricultural soils.



AGRICULTURAL VIBRANCY INDICATORS



Protected Farmland

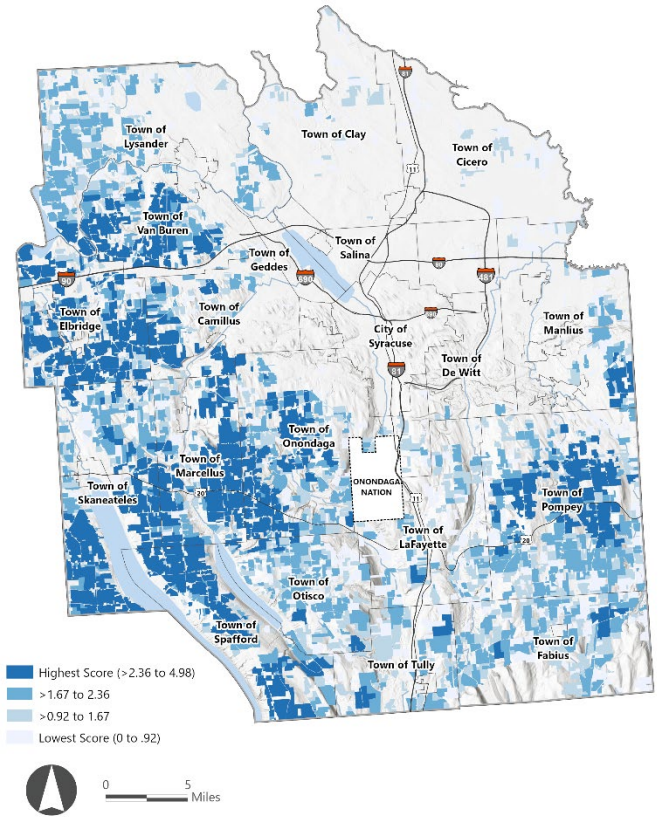


Parcels Receiving an Agricultural Assessment

Cultivated Land

Map 6: Analysis of farmland within dense agricultural clusters

Agricultural lands shown in the darkest blue areas are those with the highest "score" in Map 6. These areas should be prioritized by Onondaga County agencies and support organizations for policies and other measures oriented toward lands in proximity to established agricultural communities. Prioritizing these areas result in protected agricultural "nodes" throughout the County.



will

NATURAL RESOURCES INDICATORS

Drinking Water Supply Watersheds and Aquifers

State and Federal Wetlands

Floodplains

Protected Streams and Waterbodies and other Major Lakes and Ponds

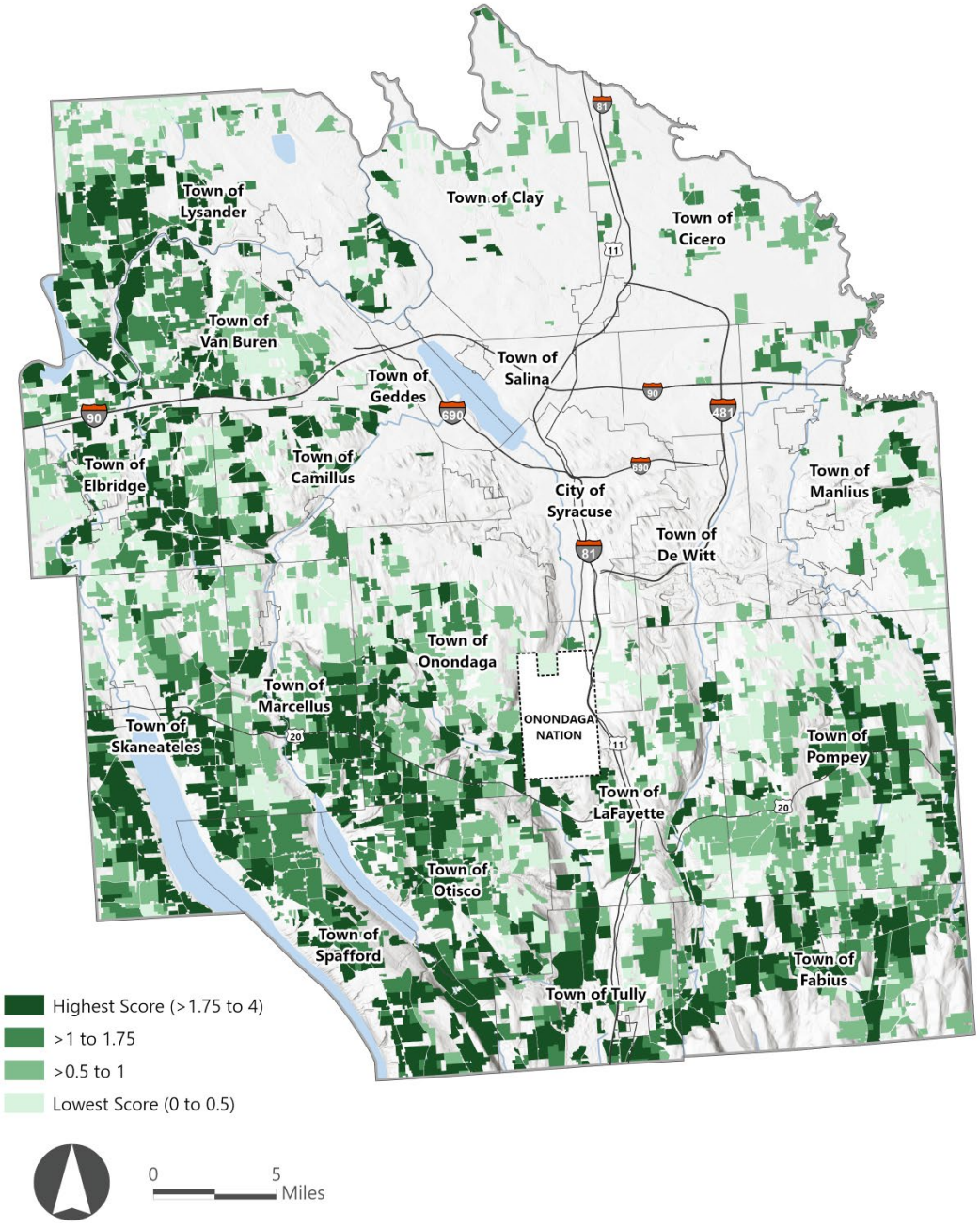
Public Parks, Land Trust Owned, and Other Protected Properties

Routes 20 and 80 One Mile Viewshed

Agricultural lands shown in the darkest green areas are those with the highest "score" in Map 7. These areas should be prioritized by Onondaga County agencies and support organizations for policies and other

measures oriented toward agricultural environmental protection. Prioritizing these areas will result in improved environmental quality and community-wide resiliency.

Map 7: Analysis of farmland and important natural features



LAND DEVELOPMENT INDICATORS

Major Electric Transmission Lines

Parcels with Public Water Service

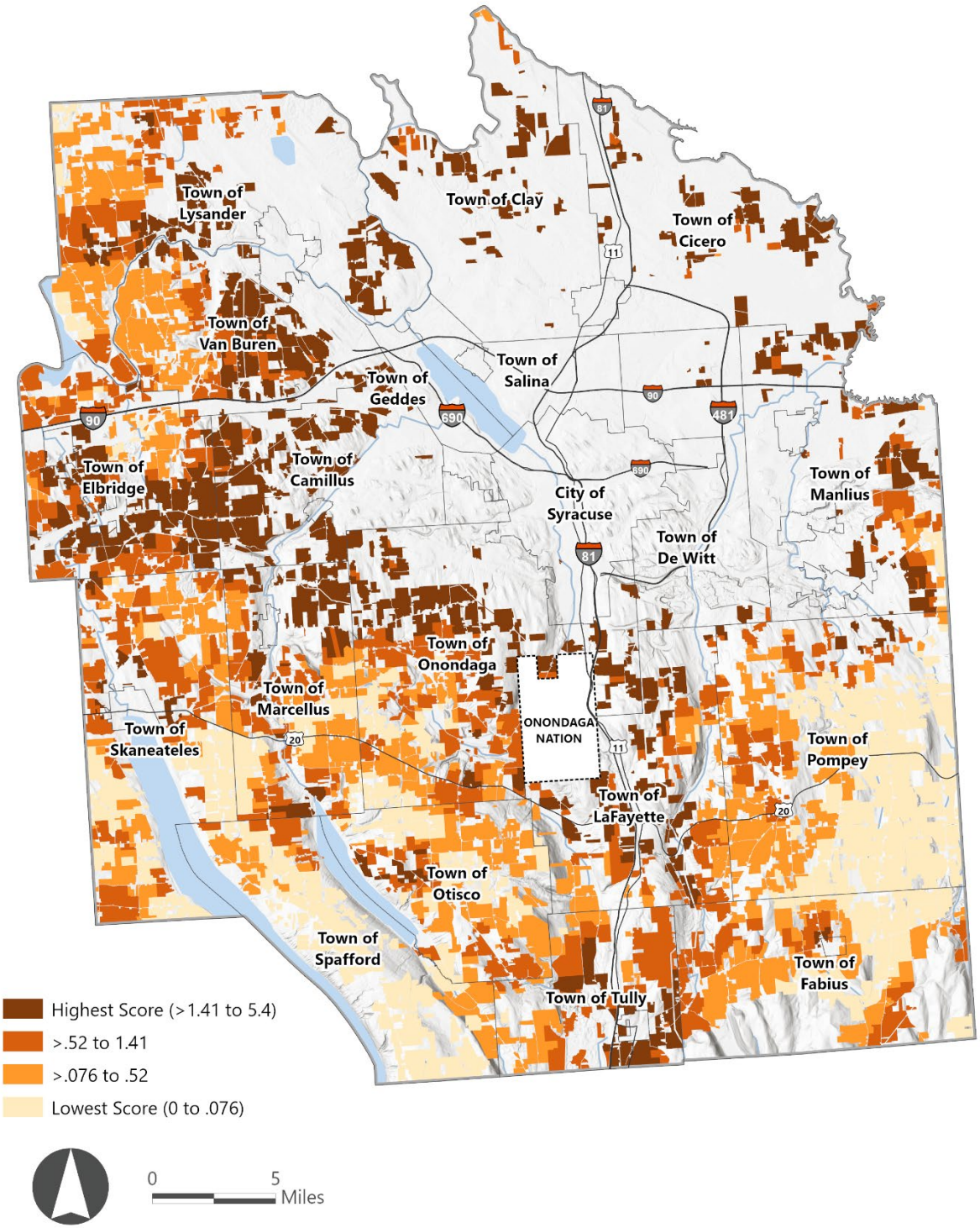
Parcels with Public Wastewater Service

Properties Developed Since 2016

3, 5, and 10 Minute Travel Times from Interstate Highway Interchanges

Agricultural lands shown in the darkest orange areas in Map 8 are those with the highest "score". These areas should be prioritized by Onondaga County agencies and support organizations for policies and other measures that would like to consider all the aforementioned criteria. Prioritizing these areas will result in improved strategized protection near areas facing the highest threat of land conversion, while also factoring in the value of soils, proximity to other agricultural clusters, and natural resource benefits.

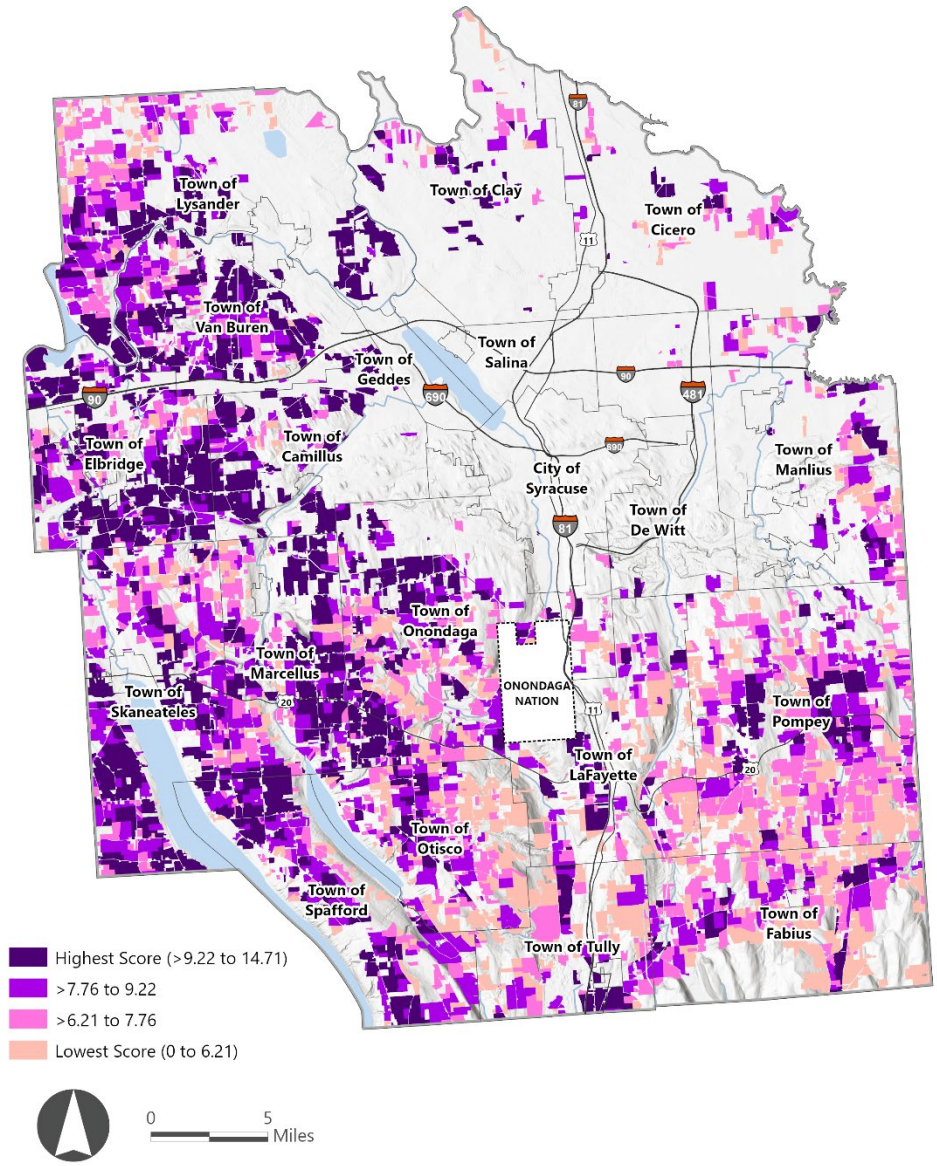
Map 8: Analysis of pressure on farmland for land use conversion



COMBINED MAP OF IMPORTANT FARMLAND

Agricultural lands shown in the darkest purple areas are those with the highest combined "score". These areas should be prioritized by Onondaga County agencies and support organizations for policies and other measures that would like to consider all the criteria. Prioritizing these areas will result in improved strategized protection near areas facing the highest threat of land conversion, while also factoring in the value of soils, proximity to other agricultural clusters, and natural resource benefits. Note the areas of important farmlands (e.g., across the western and southern areas) are subject to change with updated mapping as the conditions faced by agriculture change in the upcoming years.

Map 9: Analysis of important farmland for protection



SUMMARY OF COMMUNITY CONTEXT

The following provides an overview of strengths and opportunities that have emerged from the process of developing this plan, as highlighted in the Community Profile, Economic Profile, Analysis of Important Farmland, Farm Friendly Land Use Tools, and engagement with the municipalities, stakeholders, and community members through the development of this planning process.

AGRICULTURAL ECONOMIC DEVELOPMENT

STRENTHS AND OPPORTUNITIES

- Onondaga County is in the top ten counties for all agricultural sales in New York State.
- Onondaga County is one of the top agricultural producers of poultry and eggs (#3) and dairy (#9).
- The CNY Regional Market provides a centralized location for reaching diverse markets.
- Local institutions are available that could provide a steady source of income for farmers.
- Workforce development programs that relate to agriculture exist through CCE, BOCES, RISE, etc.
- Tech startups/industries may provide new opportunities for the agricultural sector.
- New crops (e.g., cannabis, greenhouse crops) can provide increased revenues for farmers.
- Biodigesters can provide supplemental income if managed effectively, but the technical requirements are a barrier as well as managing truck traffic.
- Solar, if sited appropriately, can provide supplemental income.
- Farm operations are highly efficient, and operators bring a wealth of business knowledge.
- Technology is always improving to maximize efficiency.
- Local businesses collaborating (e.g., distribution providers sharing transportation costs to ship produce to NYS) provide efficiencies that can keep prices down for local producer.
- New facilities can provide packaging opportunities for producers of multiple scales to provide food to local markets.
- Funding mechanisms for producers and agribusinesses do exist (e.g., cooperative agreements, granting programs) to alleviate capital costs for individual operators.
- Strong land base, great soils, plentiful water for irrigation.

ISSUES AND CHALLENGES

- Price of food is oftentimes fixed, while costs of farming continue to increase.
- Institutions are not very adaptable to the seasonality of local agriculture. Also, different institutions can have different packaging needs.
- Not all farmers have broadband internet yet, and yet it is more important than ever with the rise of robotics, drones, internet sales marketing via social media, and other technological advances.
- It will be harder to get migrant labor through the H2A program if it is incentivized in other states
- New overtime pay laws will put a greater labor cost burden on agricultural community.
- Fluctuating expenses combined with increasing production costs create tight margins.
- Increasing technological demands drive capital cost requirements for farmers.
- Value added production typically has limitations; organic dairy markets are one example of this.
- High property taxes in New York State make costs for farming more expensive.

- Lack of packaging, freezing, and distribution facilities limit economic opportunities for local producers.
- Limited food-based industries exist locally.
- Dairy consumes much of the County's agricultural land, impacting the ability to serve other food-based industry sectors.

PROTECTION OF AGRICULTURAL LAND

STRENTHS AND OPPORTUNITIES

- Multiple resources exist that can incentivize farmland protection, including the FPIG program, CREP program, and collaboration with local land trusts.
- Development on farmland can be managed through farm friendly land use tools.
- Commercial solar development can bring in steady revenue streams that supplement agricultural operations.
- If panels are sited on marginal farmlands or combined with agricultural uses, land can remain in production.
- Scenic vistas that are facilitated by open farmland, as well as nearby steep slopes, are highly important for protecting water quality and providing natural habitat.
- Protecting floodplains and wetlands can provide supplemental income/benefits to farmers (e.g., the USDA Conservation Reserve Enhancement Program).
- More communities are now knowledgeable and interested in protecting farmland.
- Limited capacity within local land trusts to manage conservation easement projects locally reduces the ability to protect more land.

ISSUES AND CHALLENGES

- Once development occurs on areas of farmed prime soil, it is very difficult, if not impossible, to restore the soil back to its original state.
- Due to ongoing residential and commercial sprawl, Onondaga County has lost much of the agriculture that originally fed its population.
- New demands for renewable energy generation have given rise to utility scale solar development consuming rural lands and increasing agricultural land values.
- Commercial solar energy projects are often sited on active agricultural lands, removing prime agricultural land from production.
- Opportunities to pair solar developments with agrivoltaic solutions or "co-agriculture" are limited.
- Within the farming community of Onondaga County, there is a lack of awareness of farmland protection services provided (e.g., FPIG and CREP).
- Municipal regulations related to agriculture varies and may not be conducive for farmland protection.
- Expansion of infrastructure facilitate sprawl and work against farmland protection goals.
- Roadside housing along rural roads is a more incremental form of sprawl, but one that is potentially just as significant in terms of acreage that it removes from production.
- Increasing housing market demand in recent years has potential to increase sprawl.
- Proximity to urban area creates inherent challenges for balancing development needs with farmland protection.

- Limited available funds are available from the state for agricultural conservation easements, and available farmland protection funding is highly competitive.
- Land trust partners and local governments are limited in their ability to accommodate demand for farmland protection/conservation easement programs.
- A lack of locally funds exists agricultural conservation funding or programming.
- There is NYS funding available for the preparation of county and municipal farmland protection plans.

LINKING LOCAL AGRICULTURE TO THE COMMUNITY

STRENTHS AND OPPORTUNITIES

- Onondaga County's farms are in relatively proximity to urban populations in Onondaga. County, and to our major transportation routes, making it relatively easier for residents and visitors to access and connect with farmers.
- Agritourism increases awareness of Onondaga County's agriculture, which in turn, can increase local food sales and tax revenues for rural communities.
- National and local resources exist for farmers interested in conducting agritourism activities.
- The increasing availability of broadband internet is enabling farms to reach new audiences.
- Local interest and incentives for agritourism has increased in recent years.
- Onondaga Grown has provided a framework to market local agriculture to residents.
- Municipalities are tailoring local zoning regulations to address the emergence of agritourism uses within rural areas.

ISSUES AND CHALLENGES

- Despite existing programs, there is always need for more awareness about the importance of local food systems with the public, and how to obtain local food.
- Food deserts, caused by the consolidation of grocery stores and decreased number of farmers markets, result in a lack of access to fresh food to individuals that lack mobility options and further disconnect people from local agriculture.
- Agritourism destinations that become "Agritainment", or more focused toward entertainment than agriculture, can cause frustration and conflict with nearby farmers and neighbors (e.g., managing parking & crowd sizes).
- Introduction of larger scale commercial affiliated with agritourism can create new burdens on public infrastructure in rural areas.
- Public awareness of farming is often oversimplified and lacks understanding of the difficulties and complexities of agriculture.
- Both "non-farming" and "farming" skills are required to develop links between agriculture and the broader community, and not everyone has both.
- Unintended consequences can occur between different interest groups, causing friction between the farming and non-farming community (e.g., well placement on adjacent properties can interfere with manure spreading on crop fields).
- Farmers can be difficult to contact as a single "farming community" (i.e., no single contact list exists that is useable for programming).

NEXT GENERATION OF FARMERS AND LABOR

STRENTHS AND OPPORTUNITIES

- Agriculture is a growing and vibrant sector of Onondaga County's economy and can offer local career opportunities.
- There is a growing interest in farming and models/programming available to connect interested new and beginning farmers to producers.
- Many individuals in immigrant/migrant communities already have a lot of agricultural know-how and want to farm. With the decreasing number of current farm operators, there is an opportunity for land ownership to transfer to farmworkers in order to maintain a diversity of landownership within the agricultural community.
- Opportunities exist to further link existing refugee workforce training programs with the agricultural industry.
- Regional workforce development in warehouse distribution, drone technology, and other tech industries may also attract new workers to the tech-oriented agricultural sector.
- There is a growing interest in farming and models/programming available to connect interested new and beginning farmers to producers.
- Onondaga County hosts or is in proximity to several nearby colleges and universities that offer higher education in agriculture or agriculturally related industries.

ISSUES AND CHALLENGES

- No strong local new farmer programs exist to provide mentorships from active farmers to create high quality pathways for ag-related career.
- It will be harder to get migrant labor through the H2A program if it is incentivized in other states.
- New overtime pay laws will put a greater labor cost burden on agricultural community.
- Limited access to land, higher startup costs, and increasingly unpredictable and extreme weather are barriers future generations of agriculture entrepreneurs will face more than their predecessors.
- Farms endure low profit margins making it difficult to innovate and take risks. Additionally, the price of food is too low, while costs of farming continue to increase.
- Farm succession is a major challenge as young people move out of farming as a career; meanwhile, farms are getting consolidated into fewer operations and absorbing small or mid-size farms.
- Small and mid-size farms have difficulties competing with the name recognition, efficiencies, land base, and other offerings of larger farms.
- For new, minority, veteran, and women farmers, the path to a successful farming career is fraught with challenges, such as struggling to find financing to purchase land, confronting historical racial and gender inequities, and transitioning back into civilian life after military service.
- Transportation access to agricultural work from urban areas is limited.

AGRICULTURE AND THE NATURAL ENVIRONMENT

STRENTHS AND OPPORTUNITIES

- Onondaga County is gifted with plentiful water and productive soils.

- Tools, programs, and funding exist (nationally and locally) to balance agriculture with the natural environment.
- Public awareness on the intrinsic relationship between farming and the environment is increasing thanks to internet resources and GIS mapping tools.
- Scenic vistas that are facilitated by farmland and nearby steep slopes also enhance agritourism experiences.
- Protecting floodplains and wetlands on farmland can recharge soils, provide habitat, and improve water quality).
- Agriculture is a land use that can be benefitted by occasional flooding, unlike most other land uses.
- Biodigester technology provides agricultural operations opportunities to earn additional revenue and decrease environmental pollutants.

ISSUES AND CHALLENGES

- Increased stormwater water runoff from more severe storm events, along with more dramatic temperature fluctuations and unpredictable dry spells, is happening and will continue to increase due to climate change, placing strain on farmers.
- Water quality issues are caused by both residential and agriculture runoff, leading to conflict and confusion.
- A decrease in pollinator populations and increased invasive species is occurring, negatively impacting agricultural productivity.
- The loss of prime farmland makes farmland more expensive and less productive overall.
- A lack of funding & staff capacity exists to protect environmental resources and administer grants at the rate to make programs effective for the landowners.
- Implementation of soil management best practices on farms must continue to protect water quality.
- Air quality issues during times of manure spreading can create conflicts with neighbors.
- Precision technology that can improve environmental impacts can be very costly and create barriers for farmers to implement.
- Combined Animal Feeding Operations (CAFOs)_can produce more manure than is useable by a single operation. When manure is applied too frequently or in too large a quantity across an area, nutrients can runoff or are leached into waterbodies, leading to public health or environmental issues.

VISION

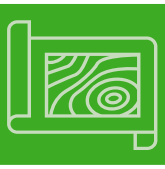
Where does Onondaga County see its agriculture going? What are goals to reach that vision? This section describes the guiding vision and goals to address the existing needs and opportunities faced by Onondaga County's agriculture. This vision is based on the contributions and foresight of participants involved in the development of this plan and is the basis for the goals and recommended actions.

The state of agriculture in Onondaga County has seen significant changes over the years. Through it all, local agriculture remains a critical part of its economy, food system, and landscape. The County is gifted with highly productive agricultural soils, a legacy of farming operations and know-how, and an environment that supports a highly diverse array of agriculture and opportunities to engage with the local food system. This plan honors the strengths of Onondaga County's agriculture and reflects these strengths in a vision for the future of agriculture throughout the County:

Onondaga County is a dynamic agricultural community of vibrant, resilient, and experienced farm operators and farm-related entrepreneurs who are the stewards of local viable farmland and the food system.

GOALS

Enhance agriculture-related economic development activities and collaboration to capitalize on emerging markets, technologies, and incentives.



Strategically protect agricultural lands throughout Onondaga County to sustain and improve its vibrant agricultural operations.

Promote the importance of local agriculture and food systems throughout Onondaga County.

Support the next generation of farmers and agricultural entrepreneurs in Onondaga County.

Continue to enhance the relationship between agriculture and the natural environment.

RECOMMENDED ACTIONS

Enhance agriculture-related economic development activities and collaboration to capitalize on emerging markets, technologies, and incentives.

- Full-time staff to Agricultural Economic Development Coordinator position to spearhead agriculture related initiatives, partnerships, and funding opportunities and farmland protection.
- Feasibility study for a food hub or agricultural business park for local producers to better link local producers with processing and distribution
- Develop a strategy to develop ways that agriculture can help to decrease overall waste, for example renewable natural gas projects for dairy waste and promoting paper/plastic recycling and reuse. (see Goal 5)
- Trainings for producers about resource management, certifications, value-added production, and market development.
- Improve broadband in rural communities to support high-tech ag machinery and communication.
- Train and equip local support agencies to offer agricultural unmanned aerial vehicle (UAV) services to their constituents
- Develop commercial kitchen to provide startup operations the ability to develop value-added products

Strategically protect agricultural lands throughout Onondaga County to sustain and improve its vibrant agricultural operations.

- Improve capacity and increase funding to protect farmland via various programs and entities like FPIG, USDA, CNY Land Trust, Agricultural Districts, new partners, etc.)
- Work with municipal boards and staff to understand the land use tools available to "strike the right balance" for solar development on farmland by directing potential future development on marginal farmland and using solar to improve farm viability

- Establish funds or staffing to provide adequate technical assistance for local land trusts, as well as provide technical guidance for use of Farm Friendly toolbox.
- Work with municipal boards and staff to update and revise their comprehensive plans and land use regulations to provide better support for agricultural uses.
- Encourage towns to create their own agricultural protection plan that works in coordination with the Onondaga County Agricultural and Farmland Protection Plan.

Promote the importance of local agriculture and food systems throughout Onondaga County.

- Pursue and provide active value-chain-coordination to develop a food hub for local producers to better access local consumers and wholesale providers.
- Increase County support for agriculture-related promotional events and marketing, particularly for agritourism (e.g., startup assistance, social media help, siting, and logistics).
- Promote public awareness of local agriculture through the Onondaga Agricultural Council program via the Onondaga Grown/Buy Local Campaign.
- Update Onondaga Grown mapper so that local producers, distributors, processors, food- related businesses, and customers can be organized by product throughout Onondaga County.
- Grow OnFarm Fest programming to serve as a well-known opportunity to educate residents of Onondaga County's agriculture

Support the next generation of farmers and agricultural entrepreneurs in Onondaga County.

- Develop an agriculturally oriented year-round community greenhouse to host agritourism events/ educational programming
- Develop a New Farmer Program that continues to support and grow incubator programs that provide land and other resources to serve the next generation of farmers or newly arrived immigrants familiar with farming; promote manager-in-training programs through mentorship,

and provides technical assistance for programs that link aspiring farmers with landowners who want to lease or sell their land, or those that are interested in accessing loan programs.

- Develop farm specialty labor pool by creating program of trainings for high-tech agriculture (or link to existing programs)
- Provide training for agri-service or land use planning professionals, along with others from the farming community to support succession planning and direct farmers to appropriate stress-related support services.

Continue to enhance the relationship between agriculture and the natural environment.

- Develop a strategy to develop ways that agriculture can help decrease overall waste, for example renewable natural gas projects for dairy waste (see Goal 1) and promoting paper/plastic recycling and reuse working with OCCRA.
- Increasing funding available to evaluate causal pathways for water quality issues and assist farmers in implementing strategic water quality management practices. In addition, encourage flexibility in the funding mechanism to increase participation.
- Increase technical assistance programming with a focus on climate resiliency (e.g., flooding and drought), stormwater management, and other environmental management issues, like runoff nutrients, farmyard management, silage nutrient management, fertilizer application calibration, etc.
- Increase funding and technical; assistance to participate in programs that protect soil health.

IMPLEMENTATION MATRIX

The Implementation Plan is a table summarizing the recommended actions, organized by related goals, that Onondaga County has established to guide the implementation of the Onondaga County Agriculture and Farmland Protection Plan. It is a useful tool for decision-making and for monitoring progress, as it is expected that the implementation of Onondaga County will take place over the course of the next 25 years. The table is meant to provide additional information on the expected timeframes, sponsors, partners, and funding sources necessary to accomplish each action. This table should be updated as part of the regular review of the Plan. Each of these priority actions is assigned the following in the implementation table:

- Project Lead – who is most likely to be responsible for seeing that the action is pursued
- Potential Project Partners – who is most likely to assist, oversee, or advise during implementation
- Timeframe – Short Term (o-3 years), Medium-Term (4-7 years), Long-Term (>7 years)
- Potential Funding Source – potential sources of funding (either internal or external; see Glossary of Acronyms) Several projects may be funded through departmental budgets or other means. See also: list of *Potential Funding and Financing Resources (Appendix D)*
- Preliminary Cost Estimate – ranges from minor ($) to major ($$) undertakings
- Implementation Status – utilized to track progress toward implementation of the specified action: Not Started, In Progress, Completed (include date of completion) and can be utilized in conjunction with the periodic review of the plan to measure overall progress toward plan implementation

Figure 33: Acronym Guide for Implementation Matrix

Acronym	Full Title
OCOED	Onondaga County Office of Economic Development
CNYRMA	CNY Regional Market Authority
OCPF	Onondaga County Planning Federation
OCIDA	Onondaga County Industrial Development Agency
CNYRPDB	CNY Regional Planning and Development Board
SWCD	Soil and Water Conservation District
USDA NRCS	US Department of Agriculture Natural Resources Conservation Service
SOFSA	Syracuse-Onondaga Food Systems Alliance
OCAC	Onondaga County Agriculture Council
AFPB	Agriculture and Farmland Protection Board
SYRAP/RISE	Syracuse Refugee Assistance Program/Refugee and Immigrant Self-Empowerment
NOFA	Northeast Organic Farming Association
CCE	Cornell Cooperative Extension
AFT	American Farmland Trust
USDOE	US Department of Energy

Figure 34: Implementation Matrix

ACTION	PROJECT LEAD	POTENTIAL PARTNERS	TIME FRAME	POTENTIAL FUNDING SOURCE	PRELIMINARY COST ASSESSMENT
Goal 1: Enhance agriculture-related economic development activities and collaboration to capitalize on emerging markets, technologies, and incentives.					
Action 1: Dedicate full-time staff to Agricultural Economic Development Coordinator position to spearhead agriculture related initiatives, partnerships, and funding opportunities and farmland protection.	OCOED	CCE	Near-term	ESD Feasibility Study grant program	$$
Action 2: Develop a strategy to develop ways that agriculture can help to decrease overall waste, for example renewable natural gas projects for dairy waste and promoting paper/plastic recycling and reuse. (see Goal 5)	OCOED	USDOE, SWCD, OCCRA	Near-term	**[TBD]**	$$
Action 3: Explore the feasibility for developing a food hub or agricultural business park for local producers to better link local producers with local processing and distribution, and to ultimately reach broader US and/or global markets. (see Goal 3).	OCOED	Russo Produce, CNYRMA	Longer-term	**[TBD]**	$$
Action 4: Host periodic trainings to educate existing and prospective producers about resource management, certifications, value-added production, and market development.	CCE	SWCD	Longer-term	**[TBD]**	$
Action 5: Improve broadband in rural communities to support high-tech ag machinery and communication.	**[TBD]**	**[TBD]**	**[TBD]**	**[TBD]**	**[TBD]**
Action 6: Train and equip local support agencies to offer agricultural unmanned aerial vehicle (UAV) services to their constituents	CCE	OCOED, Grow NY, SWCD	Longer-term	grown	$$
Action 7: Develop a commercial kitchen to provide startup operations the ability to develop value-added products	**[TBD]**	**[TBD]**	**[TBD]**	**[TBD]**	**[TBD]**
Action 8: Explore the feasibility of developing a USDA certified meat processing facility.	**[TBD]**	**[TBD]**	**[TBD]**	**[TBD]**	**[TBD]**

ACTION	PROJECT LEAD	POTENTIAL PARTNERS	TIME FRAME	POTENTIAL FUNDING SOURCE	PRELIMINARY COST ASSESSMENT
Goal 2: Strategically protect agricultural lands throughout Onondaga County to sustain and improve its vibrant agricultural operations					
Action 1: Improve capacity and increase funding to protect farmland via various programs and entities like FPIG, USDA, CNY Land Trust, Agricultural Districts, new partners, etc.)	SOCPA	Municipalities CNY Land Trust	Ongoing	**[TBD]**	$
Action 2: Work with municipal boards and staff to understand the land use tools available to "strike the right balance" for solar development on farmland by directing potential future development on marginal farmland and using solar to improve farm viability	SOCPA	CNY RPDB, OCIDA, Municipalities AFT	Ongoing	**[TBD]**	$
Action 3: Establish funds or staffing to provide adequate technical assistance for local land trusts, as well as provide technical guidance for use of Farm Friendly toolbox.	SOCPA	CCE, SWCD, CNYRPDB	Near-term	**[TBD]**	$
Action 4: Work with municipal boards and staff to update and revise their comprehensive plans and land use regulations to provide better support for agricultural uses.	SOCPA	OCPF, Town legislative boards and/or planning boards	Ongoing	OCPF	$
Action 5. Encourage towns to create their own agricultural protection plan that works in coordination with the Onondaga County Agricultural and Farmland Protection Plan.	SOCPA	NYSDAM	Ongoing	NYSDAM	$$

ACTION	PROJECT LEAD	POTENTIAL PARTNERS	TIME FRAME	POTENTIAL FUNDING SOURCE	PRELIMINARY COST ASSESSMENT
Goal 3: Promote the importance of local agriculture and food systems throughout Onondaga County.					
Action 1. Pursue and provide active value-chain-coordination to develop a food hub for local producers to better access local consumers and wholesale providers.	CNYRMA	SOFSA	Medium-term	**[TBD]**	$

ACTION	PROJECT LEAD	POTENTIAL PARTNERS	TIME FRAME	POTENTIAL FUNDING SOURCE	PRELIMINARY COST ASSESSMENT
Goal 3: Promote the importance of local agriculture and food systems throughout Onondaga County.					
Action 2: Increase County support for agriculture-related promotional events and marketing, particularly for agritourism (e.g., startup assistance, social media help, siting, and logistics).	OCAC	USDA Agricultural Marketing Service	Ongoing	USDA AMS Local Food Promotion Program	$
Action 3: Promote public awareness of local agriculture through the Onondaga Agricultural Council program via the Onondaga Grown/Buy Local Campaign.	CCE	Farm Bureau	Ongoing	American Farm Bureau	$
Action 4: Update Onondaga Grown mapper so that local producers, distributors, processors, food- related businesses, and customers can be organized by product throughout Onondaga County.	OCOED	Syracuse University? SOFSA, OCAC, OCIDA	Near-term	USDA AMS Local Food Promotion Program	$$
Action 5: Grow OnFarm Fest programming to serve as a well-known opportunity to educate residents of Onondaga County's agriculture,	SOCPA	OCAC, CCE, OCIDA	Near-term	**[TBD]**	**[TBD]**

ACTION	PROJECT LEAD	POTENTIAL PARTNERS	TIME FRAME	POTENTIAL FUNDING SOURCE	PRELIMINARY COST ASSESSMENT
Goal 4: Support the next generation of farmers and agricultural entrepreneurs in Onondaga County.					
Action 1: Develop an agriculturally oriented year-round community greenhouse to host agritourism events/ educational programming	OCOED	Brady Farm, CCE, NYS Fairgrounds,	Ongoing	**[TBD]**	$

ACTION	PROJECT LEAD	POTENTIAL PARTNERS	TIME FRAME	POTENTIAL FUNDING SOURCE	PRELIMINARY COST ASSESSMENT
Goal 4: Support the next generation of farmers and agricultural entrepreneurs in Onondaga County.					
Action 2: Develop a New Farmer Program that continues to support and grow incubator programs that provide land and other resources to serve the next generation of farmers or newly arrived immigrants familiar with farming; promote manager-in-training programs through mentorship, and provides technical assistance for programs that link aspiring farmers with landowners who want to lease or sell their land, or those that are interested in accessing loan programs.	CCE	SYRAP/RISE, Salt City Harvest Farm, and Brady Farm, NOFA, FFA, 4H	Ongoing	**[TBD]**	$$
Action 3: Develop farm specialty labor pool by creating program of trainings for high-tech agriculture (or link to existing programs)	CCE	AFPB, AFT, grow NY, LeMoyne College	Ongoing	**[TBD]**	$
Action 4: Provide training for agri-service or land use planning professionals, along with others from the farming community to support succession planning and direct farmers to appropriate stress-related support services.	CCE	FarmNet, AFPB, SOCPA	Ongoing	**[TBD]**	$

ACTION	PROJECT LEAD	POTENTIAL PARTNERS	TIME FRAME	POTENTIAL FUNDING SOURCE	PRELIMINARY COST ASSESSMENT
Goal 5: Continue to enhance the relationship between agriculture and the natural environment.					
Action 1: Develop a strategy to develop ways that agriculture can help decrease overall waste, for example renewable natural gas projects for dairy waste (see Goal 1) and promoting paper/plastic recycling and reuse working with OCCRA.	SWCD	**[TBD]**	**[TBD]**	**[TBD]**	**[TBD]**

ACTION	PROJECT LEAD	POTENTIAL PARTNERS	TIME FRAME	POTENTIAL FUNDING SOURCE	PRELIMINARY COST ASSESSMENT
Goal 5: Continue to enhance the relationship between agriculture and the natural environment.					
Action 2: Increasing funding available to evaluate causal pathways for water quality issues and assist farmers in implementing strategic water quality management practices. In addition, encourage flexibility in the funding mechanism to increase participation.	SWCD	CCE, USDA NRCS, City of Syracuse	**[TBD]**	USDA NRCS, City of Syracuse	**[TBD]**
Action 3: Increase technical assistance programming with a focus on climate resiliency (e.g., flooding and drought), stormwater management, and other environmental management issues, like runoff nutrients, farmyard management, silage nutrient management, fertilizer application calibration, etc.	SWCD	CNYRPDB	**[TBD]**	**[TBD]**	**[TBD]**
Action 4: Increase funding and technical; assistance to participate in programs that protect soil health	SWCD	CCE	**[TBD]**	USDA NRCS	**[TBD]**

VENTURE PROPOSALS – TBD

BIBLIOGRAPHY

Abbott, C. 2019. "On average, U.S. farmers are aging, but a quarter of them are newcomers". Available at: https://thefern.org/ag_insider/on-average-u-s-farmers-are-aging-but-a-quarter-of-them-are-newcomers/#:~:text=The%20average%20farm%20for%20new,larger%20than%20the%20U.S.%20average. (accessed March 2022).

American Farmland Trust. 2016. Cost of Community Services Studies Fact Sheet and Technical Memo. Available at https://farmlandinfo.org/publications/cost-of-community-services-studies/ (accessed January 9, 2021).

American Farmland Trust. 2020a. Farms Under Threat. New York State Spatial Summary and Policy Scorecard. Available at: https://farmlandinfo.org/publications/farms-under-threat-the-state-of-the-states/ (accessed March 2022).

American Farmland Trust. 2020b. Farms Under Threat: The State of the States. Available at: https://s30428.pcdn.co/wp-content/uploads/sites/2/2020/09/AFT_FUT_StateoftheStates_rev.pdf (accessed March 2022).

American Farmland Trust. 2022. Smart Solar Siting on Farmland: Achieving Climate Goals While Strengthening the Future for Farming in New York. Available at: https://farmlandinfo.org/publications/smart-solar-siting-in-new-york-report/ (Accessed March 2022).

Henriques, M., 2019. https://www.bbc.com/future/bespoke/follow-the-food/the-ageing-crisis-threatening-farming/

EMSI. 2020. Employment Growth 2015 – 2020. Data provided in December 2021 by Peter Fairweather for the Onondaga County Comprehensive Plan.

Fox, C., Fuentes R., Ortiz Valdez, F., Purser, G., and Sexsmith, K. 2017. "Milked: Immigrant Dairy Farmworkers in New York State." A report by the Workers' Center of Central New York and the Worker Justice Center of New York. Available at: http://www.iwj.org/resources/milked-immigrant-dairy-farmworkers-in-new-york-state (accessed March 2022).

Grow-NY and Cornell AgriTech New York State Agricultural Experiment Station. 2021. A call for innovation: New York's Agrifood System. Available at https://www.grow-ny.com/wp-content/uploads/2021/04/FULL-A-Call-for-Innovation_-New-Yorks-Agrifood-System-3.pdf (accessed March 2022).

Mancl, K. 2020. Agricultural plastic in the US and China: A blessing or a curse? Ohio Country Journal. Published by Ohio Ag Net. Accessed https://ocj.com/2020/11/agricultural-plastic-in-the-u-s-and-china-a-blessing-or-a-curse/ (Accessed April 2020).

National Association of Counties. 2019. Analysis of Federation Communications Commission. Available at: https://www.naco.org/resources/featured/arpa/broadband (accessed March 2022).

New Venture Advisors. 2021. Local Food Marketsizer®. Available at https://www.newventureadvisors.net/marketsizer/ (accessed January 2022).

New York Climate Change Science Clearinghouse (NYCCSC). 2021. Climate Change Impacts to Agriculture in New York State. https://www.nyclimatescience.org/sectors/agriculture

New York State Department of Agriculture and Market. 2020. New York State Agriculture Commissioner Highlights Success of Maple Experience. Available at https://agriculture.ny.gov/news/new-york-state-agriculture-commissioner-highlights-success-maple-experience (accessed April 2022).

New York State Department of Agriculture and Market. 2022. Frequently Asked Questions Regarding Agricultural Districts. Available at https://agriculture.ny.gov/system/files/documents/2020/01/agricultural_districts_faq.pdf (accessed March 2022).

New York State Department of Labor. 2022. Farm Laborers Wage Board Hearings. Available at https://dol.ny.gov/farm-laborers-wage-board-hearings (accessed April 2022).

New York State Department of Taxation and Finance. 2022. Property Type Classification Codes. Available at: https://www.tax.ny.gov/research/property/assess/manuals/prclas.htm (accessed March 2022).

New York State Department of Agriculture and Market. 2022. Frequently Asked Questions Regarding Agricultural Districts. Available at https://agriculture.ny.gov/system/files/documents/2020/01/agricultural_districts_faq.pdf (accessed March 2022).

New York State Office of the Governor. 2022. Governor Hochul Signs Conditional Cannabis Cultivation Bill. Available at: https://www.governor.ny.gov/news/governor-hochul-signs-conditional-cannabis-cultivation-bill (accessed March 2022)

New York State Office of Renewable Energy Siting. 2021. Regulations Implementing Section 94-c of the Executive Law Chapter XVIII, Title 19 of NYCRR Part 900. Available at https://ores.ny.gov/system/files/documents/2021/03/chapter-xviii-title-19-of-nycrr-part-900-subparts-900-1-through-900-15.pdf (accessed April 2022).

Office of the New York State Comptroller. 2018. Agriculture in New York State. Available at https://www.osc.state.ny.us/files/reports/special-topics/pdf/economy-agriculture-2018.pdf (accessed March 2022).

Office of the New York State Comptroller. 2019. A Profile of Agriculture in New York State. Available at https://www.osc.state.ny.us/files/reports/special-topics/pdf/agriculture-report-2019.pdf (accessed April 2022).

North Country Public Radio. January 31, 2022. NY Will Phase in Overtime Pay for Farm Workers. The Farm Bureau is Pushing Back. Available at https://www.northcountrypublicradio.org/news/story/45274/20220131/ny-will-phase-in-overtime-pay-for-farm-workers-the-farm-bureau-is-pushing-back (accessed March 2022).

Northrup, D.L., Basso, B., Wang, M.Q., Morgan, C.L.S., Benfey P.N., 2021. Novel technologies for emission reduction complement conservation agriculture to achieve negative emissions from row-crop production. Proceedings of the National Academy of Sciences 118 (28). Available from https://www.pnas.org/content/118/28/e2022666118 (accessed January 2022).

Onondaga County Agriculture and Farmland Protection Board. 1997. Agriculture and Farmland Protection Plan. Available at: http://www.ongov.net/planning/documents/ag_farm_plan_1997.pdf (accessed March 2022)

Onondaga County Agriculture and Farmland Protection Board. 2018. Agricultural District 1: Eight-Year Review. Available at: http://ongov.net/planning/documents/REPORTMAP-AgDistrict1Renewal2018.pdf (accessed September 2021)

Onondaga County Agriculture and Farmland Protection Board. 2020. Agricultural District 2: Eight-Year Review. Available at: http://ongov.net/planning/documents/REPORTMAP-District2Renewal2020.pdf (accessed September 2021)

Onondaga County Agriculture and Farmland Protection Board. 2014. Agricultural District 3: Eight-Year Review. Available at: http://www.ongov.net/planning/documents/2014-AgDistrict3AFPBReport.pdf (accessed September 2021)

Onondaga County Agriculture and Farmland Protection Board. 2016. Agricultural District 4: Eight-Year Review. Available at: http://www.ongov.net/planning/documents/AgDistrict4Renewal2016Report.pdf (accessed September 2021).

Pilgeram, R., K. Dentzman, P. Lewin, and K. Conley. 2020. "How the USDA Changed the Way Women Farmers Are Counted in the Census of Agriculture." Choices. Quarter 1. Available online: http://www.choicesmagazine.org/choices-magazine/submitted-articles/how-the-usda-changed-the-way-women-farmers-are-counted-in-the-census-of-agriculture (accessed March 2022).

Peters, C.J., Nelson, B.L., Lembo, A.J., Wilkins, J.L., and Fick, G.W. 2008. Mapping potential foodsheds in New York State: A spatial model for evaluating the capacity to localize food production. Renewable Agriculture and Food Systems: 24(1); 72–84. doi:10.1017/S1742170508002457

Potteiger, M. & Weissman, E. 2021. Food Plan CNY. Available at: https://agriculture.ongov.net/wp-content/uploads/2021/03/Food-Plan-CNY.pdf (accessed March 2022)

Schmidt, T.M., 2021. The Economic Contributions of Agriculture to the New York State Economy: 2019.. Published by the Charles H. Dyson School of Applied Economics and Management, College of Agriculture and Life Sciences. Available at: https://dyson.cornell.edu/wp-content/uploads/sites/5/2021/08/EB2021-04_TShmit.pdf (accessed March 2022).

Tax Foundation. 2021. How High Are Property Taxes in Your State? Available at https://taxfoundation.org/high-state-property-taxes-2021/ (accessed March 2022).

United Nations Food and Agriculture Organization. 2021. Food systems account for more than one third of global greenhouse gas emissions. Available at https://www.fao.org/news/story/en/item/1379373/icode/ (accessed January 2021)

US Census 2017. Demographic and Housing Data (DP05 Onondaga County). Available at: https://data.census.gov/ (accessed June 2021).

USDA Agricultural Marketing Service & Colorado State University. 2022. Local Food Impact Calculator. Available at: https://calculator.localfoodeconomics.com/ (accessed March 2022).

USDA Economic Research Service. 2022. Glossary of Farm Household Well-being. Available at: https://www.ers.usda.gov/topics/farm-economy/farm-household-well-being/glossary/ (accessed March 2022).

USDA National Institute of Food and Agriculture. 2022. Family and Small Farm Program. Available at: https://nifa.usda.gov/family-farms#:~:text=Several%2C%20inter%2Drelated%20issues%20must,or%20willing%20to%20continue%20farming. (accessed March 2022).

USDA National Agricultural Statistics Service. 2022. Census of Agriculture. Available at: https://www.nass.usda.gov/AgCensus/ (accessed March 2022).

USDA National Agricultural Statistics Service (NASS). 2021. New York Ranked Second in 2021 Maple Syrup Production. Available at: https://www.nass.usda.gov/Statistics_by_State/New_York/Publications/Latest_Releases/2021/New%20York%20Maple%20Production%20Summary%202021.pdf (accessed March 2022).

USDA National Agricultural Statistics Service (NASS). 2007. Census of Agriculture. Complete data available at: www.agcensus.usda.gov/ (accessed March 2022).

USDA National Agricultural Statistics Service (NASS). 2017a. Census of Agriculture. Complete data available at: www.agcensus.usda.gov/ (accessed September 2021).

USDA National Agricultural Statistics Service (NASS). 2017b. Census of Agriculture Highlights: Female Producers. Available at: https://www.nass.usda.gov/Publications/Highlights/2019/2017Census_Female_Producers.pdf (accessed March 2022).

USDA National Agricultural Statistics Service (NASS) Cropland Data Layer. 2021a. Published crop-specific data layer. Available at https://www.nass.usda.gov/Research_and_Science/Cropland/sarsfaqs2.php (accessed March 2022).

USDA National Agricultural Statistics Service (NASS) Cropland Data Layer. 2021b. CropScape and Cropland Data Layers - FAQs. Available at https://nassgeodata.gmu.edu/CropScape/ (accessed July 2021).

USDA National Agricultural Statistics Service (NASS). 2019. 2017 Census of Agriculture Overview of Data Release. Available from: https://www.nass.usda.gov/Newsroom/Executive_Briefings/2019/04-11-2019.pdf (accessed January 2022).

USDA Natural Resources Conservation Service. Soil Survey Geographic (SSURGO) Database. Available at https://sdmdataaccess.sc.egov.usda.gov (accessed June 2021).

US Department of Labor Bureau of Labor Statistics (BLS). 2021a. Occupational Outlook Handbook, Agricultural Workers. Available at https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm (accessed January 2021).

US Department of Labor Bureau of Labor Statistics (BLS). 2021b. Quarterly Census of Employment and Wages; Location Quotients. Available at https://data.bls.gov/cew/doc/info/location_quotients.htm (accessed September 2021).

APPENDIX A: ACHIEVEMENTS OF THE 1997 PLAN

The following provides a list of these recommendations and actions that have been implemented since the adoption of the original Onondaga County Agricultural and Farmland Plan in 1997.

Property and Estate Taxes on Farmland Should Be Reduced

- Establishment and promotion of both NY state and local conservation easement programs (Onondaga County Agriculture Council and Town of Skaneateles) to reduce the financial burdens of farmland.
- Provided municipalities with education on fiscal impacts of land development patterns, including the cost of community service data for residential and agricultural/open spaces land uses.
- Increased local adoption of full value land assessment policies.
- Provided opportunities for farmer education on the development of estate plans and business plans to offset tax burdens.

Land Use Mechanisms to Protect Existing Areas of Important Farmland Resources Should be Explored and Implemented at the Municipal Level

- Development and deployment of geospatial mapping data available to agencies, municipalities, and the public, to aid in identifying important farmland areas, and in minimizing impacts of development on the agricultural community and natural resources.
- Mapping, distribution, and display of prime farmland soils to local communities.
- Enactment of multiple local laws and zoning code amendments to ensure agricultural viability. Of note in recent years, is the enactment of commercial solar energy deployment regulations with provisions to protect important farmland areas in a vast majority of towns in Onondaga County.
- Creation of agricultural advisory committees in multiple towns (e.g., Marcellus and LaFayette) to assist local boards in evaluating and improving local land-use policies and programs related to agriculture.
- Creation and adoption of the Town of LaFayette Agriculture & Farmland Protection Plan, approved by the NYS Department of Agriculture & Markets.
- Exploration of local conservation easement and development right transfer programs by multiple towns (e.g., Skaneateles and Lysander).

The Agricultural Industry Should Be Recognized and Promoted As Separate and Equal To Other Industrial Sectors in Onondaga County

- Inclusion of agricultural economic development projects and enhancement of the agricultural industry as one of a limited number of strategic areas within the Regional Economic Development Council (REDC) strategic plans.

- Establishment of the Onondaga County Agricultural Council to promote and preserve Onondaga County's agricultural economy, promote local food, and connections between the County's urban and rural communities.
- Through the Agricultural Council, creation of the Onondaga Grown buy local campaign and marketing program to recognize and market the availability and benefits of local food to the CNY region.
- With assistance from governmental partners, including the Onondaga County's Department of Economic Development, expansion of agricultural processing for new and existing national agricultural industry users, such as Ultra Dairy and Agrana yogurt processing facilities.

Public and Private Land Protection Initiatives Should Be Supported At the County Level

- Establishment and continued pursuit of NYS Department of Agriculture & Markets Farmland Protection Implementation Grants (FPIG) funding opportunities to protect over 12,000 acres of farmland in Onondaga County, through the purchase of conservation easements on agricultural lands.
- Strong partnerships among County agencies, agency partners, and the land trust community to execute FPIG easement projects, educate landowners and identify priority conservation lands.
- Local funding of agricultural land protection, namely conservation easement programs, by the Onondaga County Agricultural Council, Town of Skaneateles, land trusts, and farm operators.

The Level of Technical Support Provided to Agriculture Should Be Increased

- CCE Onondaga provides technical training programs covering a range of topics of interest to agricultural producers
- The Onondaga County Soil & Water Conservation District writes more than 15 grants annually, securing millions of dollars for farms across Onondaga County and the Skaneateles Lake Watershed.
- Grow NY Program has been established as a business competition and collaborative entity to grow and fund agricultural innovation
- Creation of the NYS Center of Excellence for Food and Agriculture at Cornell (AgriTech), to catalyze business development in the agricultural sector and provide needed services to foster growth.

Public and Private Initiatives to Expand Agricultural Education in the Classroom Should Be Supported Throughout the County

- CCE Onondaga provides educational initiatives, including Ag-in-the-classroom events such as Agriculture Literacy Week.
- Onondaga County Soil & Water Conservation District provides agricultural support to urban farms which offer educational offerings, including the Brady Farm, Dr. King Elementary School, and the

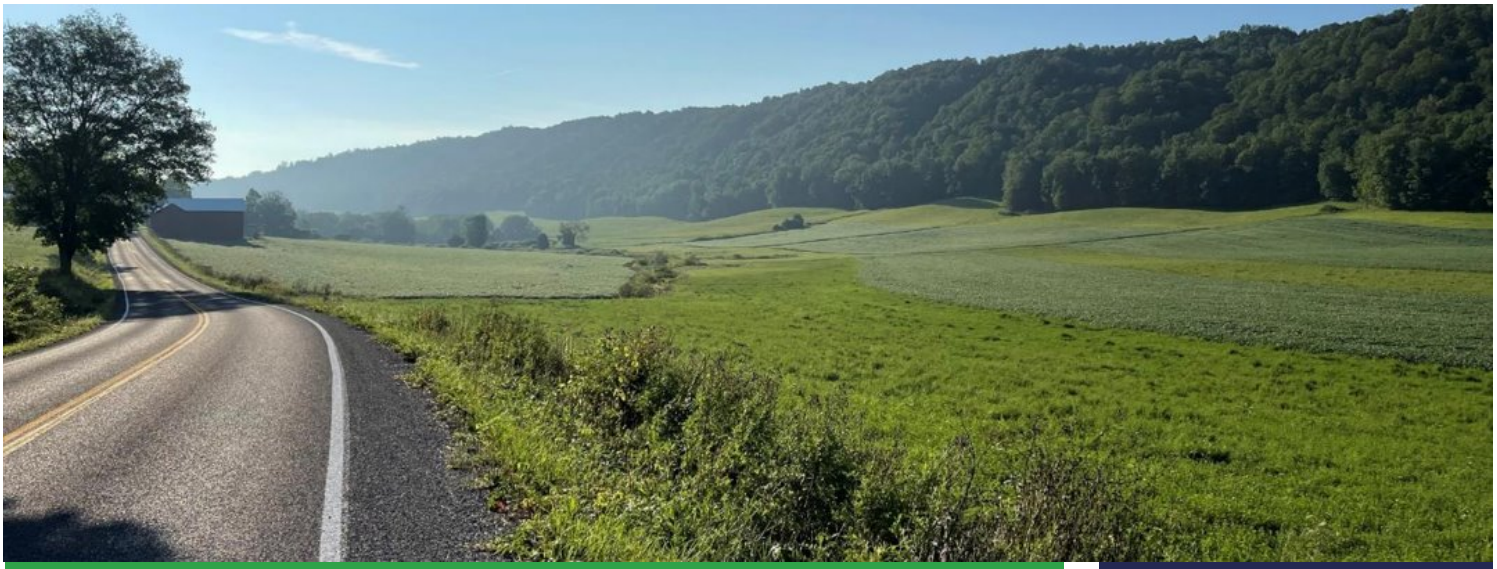
Syracuse Refugee Agriculture Program (SYRAPP), for soil sampling, analysis, and interpretation of the laboratory results for raised bed gardens.

Public Education and Community Awareness Regarding Agriculture Should Be Promoted Throughout the County

- CCE Onondaga organizes several public events to increase awareness of local agriculture, including the Onondaga Grown Campaign and OnFarm Fest; Recycling Agricultural Plastics Project (RAPP); the Beginning Farmer and Rancher Development Program developed in partnership with Refugee and Immigrant Self-Empowerment (RISE); and Annie's Project.
- The County, through the Agricultural Council, has established a media campaign, including print, radio and television advertising, social media, and widespread branding efforts to actively promote and publicize Onondaga County farms and their product offerings.
- Establishment of an annual OnFarm Fest, which now attracts over 10,000 visitors each year, to welcome residents to visit a sampling of Onondaga County Farms, meet local farmers and explore how local food is produced.
- Use of social media by several agricultural partners to publicize local farms and their offerings.
- The rise of new agritourism businesses has provided new opportunities to raise awareness in the community to the needs and benefits of local agriculture.

APPENDIX B: FARM FRIENDLY ASSESSMENTS & TOOLBOX

The following provides the farm-friendly assessments for the Towns of Onondaga, LaFayette, Manlius, and Cicero, as well as the toolbox developed for municipalities interested in implementing farm-friendly land use tools.



ONONDAGA COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN

October 25, 2021

FARM-FRIENDLY MUNICIPAL TOOLBOX

FARM FRIENDLY MUNICIPAL TOOLBOX

TABLE OF CONTENTS

FARM FRIENDLY MUNICIPAL TOOLBOX

INTRODUCTION

In New York State, land use is controlled primarily at a local level, and thus, municipalities have a critical role in effective protection of agricultural lands. Meanwhile, agriculture has evolved in multiple ways over the past several decades and will continue to evolve into the future. Throughout, it has remained a very diverse and robust economic sector in Onondaga County. Through partnerships with local farmers, municipal governments can work to plan for the long-term viability of their agricultural sectors and create local land use regulations that are up to date, farm-friendly, and meet the needs of the community as well.

There are several tools available to assist communities that desire to protect the agricultural land resources and enhance the long-term viability of agriculture. This Farm Friendly Toolbox provides an overview of these tools and is designed to assist local governments in navigating through the many recent changes to agriculture, as well as agricultural policies within NY, such as the protections afforded agricultural operations through the Agriculture and Markets Law. Local governments can use this toolbox

- In reviewing zoning and other land use regulations to ensure they are up to date as they apply to agriculture
- As a resource to consult when creating or updating the community's comprehensive plan, or a farmland protection plan, or other local planning efforts
- As a resource to consult when creating or updating the community's zoning, subdivision, and other land use regulations

In reviewing proposed new development for consistency with the community's goals.

Historically agriculture has included a variety of disciplines aside from fruit, vegetable and crop production and livestock raised for food. For the purposes of this document, agriculture is the use of land, buildings, structures, equipment, manure processing and handling facilities, and practices which contribute to the production, preparation and marketing of crops, livestock and livestock products as a commercial enterprise or a hobby and including commercial horse boarding operations as defined in New York State Agriculture and Markets Law (AML) Article 25-AA, Section 301. Activities such as animal husbandry, or the breeding of specific animals for use or sale (e.g., racehorses), beekeeping, aquaculture (fish production), horticulture, floriculture and silviculture are all considered agricultural pursuits as well. One of the most notable changes in agriculture has come under language "preparation and marketing of…products as a commercial enterprise or hobby" added under AML Section 301. Direct farm marketing has also expanded beyond the temporary, seasonal farmstand selling produce grown on the farm to include numerous processed products, from meats to cheeses to baked goods, to wine, beer, cider, and spirits, not only in person but via the internet as well.

Within this context, the Farm Friendly Toolbox is intended to help local government and the farm community address agricultural issues within Onondaga County through planning, zoning, preservation programs, and other land use regulations.

FARM FRIENDLY PLANNING TOOLS

OVERVIEW

Local planning initiatives are a key component in promoting the health and long-term viability of the community's agricultural sector. It is critical that local planning in agricultural communities thoroughly address the challenges, as well as the opportunities, weaknesses, and strengths faced by the agricultural sector. Integrating agriculture into the long-term vision for the community, as well as into planning goals and strategies, facilitates the careful balance of agricultural land protection and facilitates the flexibility needed by contemporary agricultural operations to grow and develop.

Beyond traditional agricultural plans, agricultural viability and farmland protection can dovetail into several types of planning efforts, including comprehensive planning, open space planning, and economic development planning. The purpose of this section of the Farm Friendly Toolbox is to assist municipal officials to identify potential issues and opportunities in their local planning tools as they relate to agriculture and to find areas, if any, where plans could be amended to build a more farm friendly community.

COMPREHENSIVE PLAN

The comprehensive plan sets the long-range planning goals and objectives for the community and can have an important impact on agriculture in the community through proposed policies and actions, including regulations and capital investments. It can outline actions to protect the agricultural land resource, such as identifying areas to be protected for agriculture and areas where growth will be encouraged, outline actions to promote the long-term economic viability of local agriculture and outline local farmland protection strategies to be implemented. Key elements of a farm-friendly comprehensive plan include:

- An inventory of existing agricultural operations in the community and their characteristics
- Identification of the challenges, opportunities facing local agriculture, and the strengths and weaknesses within the agricultural sector
- Identification and mapping of high-quality agricultural lands (prime soils and farmland of statewide importance) within the community
- Recognition of the importance of agricultural land as a natural resource and move beyond viewing farmland "simply as land in reserve for future urban development" (American Planning Association. 1999. Policy Guide on Agricultural Land Preservation)
- A clear set of goals, objectives, and policies to protect the agricultural land resource, and promote the long-term viability of local agriculture
- Land use and infrastructure development plan recommendations that call for channeling future development aware from agricultural areas within the community

AGRICULTURE & FARMLAND PROTECTION PLAN

FARM FRIENDLY MUNICIPAL TOOLBOX

Agriculture and farmland protection plans (AFPP) can be an important supplement to the comprehensive plan. They can be and stand-alone plan or integrated into a comprehensive plan. Standalone AFPPs are often funded by NYS Department of Agriculture and Markets. The benefit of an AFPP is that it brings farmers, local officials, and non-farmers together to focus directly on the issues facing agriculture in the community and develop policies and actions. A critical element in any AFPP is the involvement of the farm community in setting a vision for the future of agriculture in the community and creating goals and objectives designed to further that vision.

Adopted agriculture and farmland protection plans completed to the specifications of the Department of Agriculture and Markets position local governments to participate in state-funded purchase of development rights and other programs. Key elements of an AFPP are an analysis of the local conditions, including lands in agriculture, lands owned and rented by farmers, location and extent of prime agricultural soils, parcels in agricultural districts and farmers participating in agricultural district programs. In addition, the plan should include a review of zoning and subdivision regulations, as well as existing and planned sewer and water infrastructure and their implications for agriculture.

The agriculture and farmland protection plan should also include specific recommendations for policies and actions to be implemented by the local government to promote the long-term viability of its farm sector. Implementing specific elements of a plan often requires a collaborative effort between the local government and farmers, as well as local government, county and state agencies, Soil and Water Conservation Service offices and Cornell Cooperative Extension, and so it is important to identify which agencies will take the lead on implementing the various recommendations, as well as secure potential funding sources. In addition, the plan should identify those agricultural lands or areas that are proposed to be protected through zoning, easements, or other options.

OPEN SPACE PLANS

The open space plan sets the long-range planning goals and objectives for the community that focus on the identification and protection of key open space assets. Generally defined, open space is land that is not intensively developed for residential, commercial, industrial, or other land uses. Open space can serve many purposes in the community, as park and recreational space, undeveloped publicly or privately owned scenic lands, agricultural and forest lands, as well as lakes and ponds and their shorelines, and wetlands. Agricultural lands in the rural areas of Onondaga County make up the largest component of open space, and hence their protection contributes to the overall character of the community.

An open space plan can recommend a wide variety of steps relevant to agricultural uses that a community can take such as: 1) creating zoning regulations of key open space areas that channel intensive development away from such areas, including agricultural areas; 2) identifying lands, including agricultural lands, that warrant permanent protection through purchase or donation of development rights; and 3) identifying important scenic views and viewsheds and incentivize their protection.

ECONOMIC DEVELOPMENT PLANS

According to the Central New York Regional Planning and Development Board, agriculture in New York contributes some $15.5 billion annually to the State's economy. Although viewed primarily as a land use, agriculture is a key part of the economic base of many communities that provides both direct employment and raw materials for food processing industries throughout the state.

Local economic development plans that integrate agriculture as one element in a diverse economic base can identify challenges and opportunities for farmers, and policies and actions that can benefit the agricultural sector. These actions can include initiatives that support agriculture such as food hubs, new industrial development to provide markets for regional agriculture, and grant programs for capital investments in areas such as on-farm biofuel production from manure.

FARM FRIENDLY REGULATORY TOOLS

OVERVIEW

For the purpose of this toolbox, regulatory tools are the various instruments through which local governments manage growth and development within their boundaries. They guide local officials as well as residents, businesses, farmers, and others in day-to-day decisions. Well-crafted regulatory tools protect the health and welfare of the community and provide for efficient allocation of land and other municipal resources while providing the flexibility needed to prosper economically in an evolving global economy. They are also constantly evolving as new opportunities, and new issues arise.

In many New York municipalities, local land use regulations were written in a time of contraction of the agricultural sector and rapid population growth which fed visions of ever-expanding suburbs coupled with views of agriculture as a "transitory land use." After decades of this trend, however, even in relatively urbanized Onondaga County, 16 of its 19 towns still have land in active agriculture.

Additionally, zoning regulations affecting agricultural operations have not always kept pace with trends in agriculture and agricultural practices. This has often resulted in outdated regulations being applied to agricultural operations, resulting in unintentional but potentially unreasonable restrictions for farmers. Examples include direct farm marketing, on-farm wineries, breweries, cideries, distilleries, agri-tourism, bed-and-breakfast inns and other supplemental farm businesses. These agriculture-related enterprises, when operated as an accessory use to an ongoing agricultural operation, can provide revenue streams that enhance the economic viability of the farm operation. They can also provide valued goods and service to residents, strengthen the local food production system, and contribute to the overall local economy through tourism development.

FARM FRIENDLY MUNICIPAL TOOLBOX

The purpose of this section of the Farm Friendly Toolbox is to assist municipal officials to review their local land use regulations and to find areas, if any, where regulations could be amended to create a more farm friendly regulations.

RIGHT TO FARM LAWS

New York State adopted its initial right-to-farm law in 1982, and since then numerous counties and town have adopted similar laws. These laws are intended to protect those within it from nuisance lawsuits over matters like noise, odors or dust associated with agricultural operations. The State law protects farms located within county agricultural districts; however towns and villages can adopt right-to-farm laws that would apply to all farms within their boundaries. While viewed primarily as designed to protect farmers from so-called nuisance suits, local right to farm laws can be useful in other ways. In suburban municipalities where agriculture and development often occur side-by-side, a right to farm law can be a tool for raising public awareness of local agriculture.

Many towns have also utilized local right-to-farm laws to set up a framework for conflict resolution and to for enhancing communication between the farm and non-farm communities in the town. Although many farms in Onondaga County participate in the County-administered Agricultural Districts program and are afforded protection under the NY Agriculture and Markets Law, not all farms are located within an agricultural district. A local right to farm law can apply these protections to all farms located in the community.

Local right-to-farm laws vary considerably in scope and length. The core language found in a number of local laws however is:

> *Farmers, as well as those employed, retained, or otherwise authorized to act on behalf of farmers, may lawfully engage in agricultural practices within (municipality name) at all such times and all such locations as are reasonably necessary to conduct the business of agriculture. For any agricultural practice, in determining the reasonableness of the time, place, and methodology of such practice, due weight and consideration shall be given to both traditional customs and procedures in the farming industry as well as to advances resulting from increased knowledge and improved technologies.*
>
> Town of Malta NY Right to Farm Law

AGRICULTURAL DISTRICTS

Since its adoption in 1971 Article 25-AA of the Agriculture & Markets Law has served to protect and promote the availability of land for farming purposes and provided farmers protection from adverse local government policies toward agricultural operations. The primary mechanism for this is the county-administered Agricultural Districts program that provides for the protection and

enhancement of the viability of farm operations in certified agricultural districts. The benefits to farmers who participate in the agricultural district programs include:

- Limitations on the exercise of eminent domain and other public acquisitions, for specific public infrastructure projects
- Limitations on the power of local governments to impose benefit assessments or other levies for certain public infrastructure investments
- Limitations on property tax assessments levels to those that reflect the agricultural value of the land only
- A requirement that local governments avoid unreasonable restrictions in the regulation of farm operations when exercising their powers to enact and administer comprehensive plans, local laws, ordinances, and other regulations or rules and/or regulations
- A requirement that applications for certain planning and zoning actions by a local government that may impact farm operations within an agricultural district, or lands within five hundred feet of such farm operations within agricultural districts, include an agricultural data statement

The Agriculture and Markets Law Section 305-a provides farmers and agricultural operations located within County sponsored agricultural districts specific protections against local zoning regulation that may be unreasonably restrictive and cause undue interference with legitimate agricultural practices as defined by State law. The Department of Agriculture and Markets evaluation of the reasonableness of a local law regarding agriculture includes:

- Is the law or ordinance reasonable "on its face," and whether it is reasonable when applied to a specific case?
- Is the law in question is vague to a point that it inhibits farmers from undertaking certain activities or constructing certain buildings out of concern for violating it?
- Does a local regulation unreasonably restrict or regulate a particular farmer or landowner?
- Does the farm activity in question, although a legitimate agricultural activity under the law, threaten the public health or safety?

Each case investigated by the Department of Agriculture and Markets is evaluated individually and on its own merits. If a determination is made by the Department that a local law or ordinance is unreasonably restrictive as applied to agriculture, it will communicate this to the involved municipality. The next step is for the Department to work with municipal officials to resolve the issue in a manner that protects the rights of the farmer, while also addressing the concerns of the municipality

In 2002 the New York State Legislature also amended Town Law Section 283-a to require local governments to ensure that their laws, ordinances, or other regulations that might apply to agricultural operations located in State certified agricultural districts do not "…unreasonably restrict or regulate farm operations in contravention of Article 25-AAA of the Agriculture and Markets Law, unless it can be shown that the public health or safety is threatened."

Agricultural districts are established by local initiative, at the county level. The County legislature has the authority to create and manage agricultural districts within its boundaries. Towns however can play an important role in the program, by encouraging their farmers to participate in the

program, and participating in the annual enrollment program, as well as the 8-year agricultural district renewal process.

ZONING REGULATIONS

OVERVIEW

Local zoning and other land use regulations are the primary instruments through which local governments manage growth and development within their boundaries. They also have tremendous influence on farm operations. Local zoning has the potential to promote innovation and economic growth in the agricultural sector or restrain it. The following are the important elements of a farm-friendly local zoning code that can promote innovation and economic growth in the farm community.

An important component in any land use code, but one that is often overlooked is the glossary section that contains definitions of various terms used in the zoning regulations. Because of the nature of zoning, clarity is critical to ensuring fair and consistent interpretation of the regulations, promoting efficient administration and positive public perception, and while warding against controversy and in some cases expensive litigation. Zoning codes often have either outdated agriculturally related definitions or no definitions for many of the activities associated with agricultural operations. This section of the Toolbox focuses on agriculturally relevant elements of zoning codes, including definitions.

PURPOSE STATEMENT

A short purpose statement at the beginning of the regulations for each zoning district can be very helpful in articulating the purposes and objectives of individual zoning districts and providing boards and officials with guidance as they interpret the zoning code. It can also be an educational tool for the general public, informing non-farm residents that they live in an area where agriculture is a dominant land use. In the case of zoning districts where agriculture and other land uses are mixed together, a purpose statement can communicate a "farm-friendly" message supporting agriculture as a current and long-term land use.

An example of a strong purpose statement for agriculture is:

> *"[The] Agricultural/Rural Zone is primarily intended to preserve farming and agricultural lands in the Town and also to maintain open space and the quality of life enjoyed by residents of the Town. Agriculture is an important part of the Town's economy, providing both direct and indirect employment benefits, and it also provides the visual benefits of open space. This zone prioritizes and preserves viable agriculture in the Town by providing an area where agricultural operations and agricultural-based enterprises are the predominant active land uses in the zone…"*
>
> Town of Ulysses Zoning Code, Sect. 212-23

PERMITTED USES

It is of course important to provide for the range of land uses that fall under the heading of "agriculture". Historically however land use planning and zoning in many areas of Upstate New York has been premised on the perception that agriculture is a transitory land use, one that will gradually disappear in the coming decades. This has resulted in many zoning districts being designed as mixed agricultural residential zoning districts, and in more rural communities, "catch-all" zoning districts accommodating a variety of often incompatible land uses, including intensive agriculture and suburban density residential, large-scale industrial, and large-scale commercial development.

A common example of this issue is the following list of permitted uses from the zoning regulations in the Agricultural/Residential district of a rural town with high quality farmlands and a robust agricultural sector: airports, excavation and mining operations, mobile home parks, multi-family dwellings, motor vehicle service stations, hospitals, nursing homes or health related facilities, and professional office buildings. In some communities this mix of permitted uses has cause conflicts between the farm and non-farm communities. In this example, placing high density mobile home parks and multi-family dwellings, hospitals, nursing homes and health-related facilities in areas where large scale agricultural operations can be expected could have substantial adverse impacts on residents of such developments. Airports, mining operations and large-scale industrial operations can also create competition between farmers and developers for increasingly scarce agricultural land. It is important to review the permitted uses for the agricultural zoning district to ensure that the permitted uses both minimize conflicts between agricultural and non-agricultural uses and reduce competition for land resources.

AGRICULTURAL USES

New York State recognizes a wide variety of activities (Art. 25-AAA, Section301(2)) in its definition of what constitutes an agricultural operation. These include the production and marketing of:

- field crops (grains, potatoes)
- fruits and vegetables
- horticultural specialties, such as nursery stock, ornamental shrubs, ornamental trees, and flowers
- livestock and livestock products, (cattle, sheep, hogs, goats, horses, poultry, ratites (ostriches, emus, rheas, and kiwis), farmed deer and buffalo, fur bearing animals, wool bearing animals, and milk, eggs, and furs
- maple sap
- Christmas trees from a managed Christmas tree operation
- aquaculture products, including fish, fish products, water plants and shellfish
- woody biomass from, short rotation woody crops raised for bioenergy, excluding farm woodland
- honey, beeswax, royal jelly, bee pollen, propolis, and other apiary products, including package bees, nucs and queens
- actively managed log-grown woodland mushrooms

- industrial hemp as defined in Section 505 of Agriculture and Markets Law.

Other activities that the State recognizes as agricultural operations are:

- "Commercial horse boarding operation," or an enterprise meeting State size and income thresholds that generates income through the boarding for fee of horses or a combination of horse boarding and the production for sale of crops, livestock, and livestock products
- "Commercial equine operation," or an enterprise meeting State size and income thresholds that generates income through fees generated through the provision of commercial equine activities including, but not limited to riding lessons, trail riding activities or training of horses and the production for sale of crops, livestock, and livestock products
- "Timber operation," or the on-farm production, management, harvesting, processing, and marketing of timber grown on the premises into woodland products, including logs, lumber, posts and firewood conducted as part of an active farm operation, provided however that the annual gross sales value of such processed woodland products does not exceed the annual gross sales income from the production, preparation and marketing of crops, livestock and livestock products conducted on the premises
- "Compost, mulch or other organic biomass crops," or the on-farm processing, mixing, handling, or marketing of organic matter grown or produced by such farm operation, or imported off-farm generated organic matter necessary to facilitate the composting of such farm operation's agricultural waste, for the purpose of producing compost, mulch or other organic biomass crops that can be used as fertilizers, soil enhancers or supplements, or bedding materials

These activities, although some not traditional agriculture, nonetheless are protected activities within county agricultural districts, and need to be accommodated within local zoning codes. The best approach would be to define these activities clearly and concisely, as parts of a larger agricultural operation. In the case of commercial horse boarding and commercial equine operations, a combined definition would be appropriate. Also, since these two enterprises invite the public onto the premises, municipal site plan review and approval with basic site design standards is appropriate (see Site and Design Standards section).

For the purpose of the local zoning code, agriculture should be defined in a manner that is similar to the definition of farm operation in the Agriculture and Markets Law, Section 301. An example definition is:

> "*The use of land and on-farm buildings, equipment, manure processing and handling facilities, and practices which contribute to the production, preparation and marketing of crops, animal husbandry, livestock and livestock products as a commercial enterprise, including a commercial horse-boarding operation as defined in the Agriculture and Markets Law Article 25-AA, Section 301, and timber processing as defined in this zoning law.*"

In addition to promoting more farm-friendly approaches to regulating land uses, the following sections also address the issue of conformance with the New York State Agriculture and Markets Law as it relates to local zoning.

AGRICULTURE-RELATED BUSINESSES

Agriculture-related businesses are small-scale businesses operated by a farmer as a supplemental source of income for the larger farm operation. They are businesses that do not fall under the Department of Agriculture and Markets "…the production, preparation and marketing of crops, livestock and livestock products…" palette of agricultural activities. Instead, they are businesses that directly or indirectly support agriculture by providing critical materials and services to the surrounding farm community. An example definition is[1]:

> *"A retail or wholesale enterprise operated as an accessory use to an active farm on the same premises, providing products or services principally utilized in agricultural production, including structures, agricultural equipment and agricultural equipment parts, batteries and tires, livestock, feed, seed, fertilizer and equipment repairs, or the sale of grain, fruit, produce, trees, shrubs, flowers or other products of agricultural operations, and including breweries, cideries, distilleries, wineries, and juice production that are not otherwise specifically defined as a farm operation."* -Town of Geneva Zoning Code, Section 165-3

A key component of this definition is the language *"…operated as an accessory use to an active farm on the same premises…"* This verbiage is very important, as it prevents the development of stand-alone business enterprises that would not otherwise be permitted in the zoning district. In some zoning regulations, there may be physical limits on the physical size of these businesses (not to exceed 2,500 sq. ft.) or limits on the number of employees as a means of controlling their size and scale. If these businesses have outside employees or generate traffic due to shipments of deliveries, or are open to the public, municipal site plan review and approval process with basic site design standards is appropriate (see Site and Design Standards section).

AGRI-TOURISM

Agri-tourism is seen as both a means for farmers to generate additional revenues outside their main agricultural operations, and as a local economic development tool that can draw tourism into the community. It can be seasonal, a year-round enterprise, or a single annual event. Agri-tourism can also vary in its scale and the number of people it can attract, from a bed-and-breakfast to an on-farm creamery with a few hundred or less visitors per day, to thousands for a large winery or an annual or seasonal event. As a result, agri-tourism operations need careful attention in terms of definition, as well as ensuring the health and safety of the general public, and in some cases ensuring that local roads and highways are adequate to accommodate traffic.

The Department of Agriculture and Markets definition of agri-tourism makes it clear that the agri-tourism enterprise must be directly tied to the sale, marketing, production, harvesting or use of the products of the farm, but also have some sort of educational component. This educational component can include a variety of activities, including formal tours, informational displays, educational demonstrations, farm animals petting and feeding activities, and signs and displays. An example definition is:

[1] This definition includes breweries, cideries, distilleries, wineries, and juice production, agriculture related businesses which today could be defined separately as "farm breweries," "farm cideries," etc.

"An agriculture-related enterprise, operated as an accessory use to an active farm operation engaged in the production, preparation and marketing of crops, animal husbandry, livestock and livestock products as a commercial enterprise, which brings together tourism and agriculture for the education and enjoyment of the public, and which may include: hay rides, corn mazes, hay mazes, petting zoos (farm animals only), farm tours and agriculture themed festivals and other public or private events, and including as subsidiary activities the sale of gifts, clothing, beverage tastings, prepared foods, food and drink service, and other items that promote the sale of agricultural products."

As with the Department of Agriculture and Markets definition, this example emphasizes the tie to an active farm operation, the objective of promoting the sale of products of the farm operation, and education to enhance the public's awareness of farming and farm life. Since agri-tourism enterprises invite the general public onto the premises, municipal site plan review and approval with basic site design standards is appropriate (see Site and Design Standards section).

FARMSTANDS AND OTHER FORMS OF DIRECT FARM MARKETING

From the traditional seasonal farmstand, direct farm marketing has expanded to wide variety of activities, such as the year-round sale of fresh fruits and produce, meats, milk products, baked goods, and processed foods, to farmers' markets, to community supported agriculture, to the online sale of processed and unprocessed agricultural products. The common attribute of the many types of direct farm marketing enterprises is that they bypass the traditional practice of the farmer selling their product through wholesale markets: the farmer instead sells directly to the retail consumer.

Historically the most recognized form of direct farm marketing has been the temporary or permanent farmstand, or the sale of greenhouse plants and horticultural products. Often though the definition of a farmstand restricted them to being a temporary structure, and restricted sales to seasonal produce grown on the premises. Although considered agricultural operations under state law, greenhouses are often limited to commercial zoning districts.

Communities should review their zoning codes to ensure that they reflect the contemporary nature of direct farm marketing, as well as Agriculture and Markets Law. Do zoning regulations unduly restrict farmers from engaging in direct farm marketing, for instance with restricting farmstands to temporary and seasonal operation only? Do the regulations permit the wider variety of direct farm marketing enterprises that farmers may engage in today? Are the definitions up to date, both in terms of permitting these enterprises, as well as adequately defining what constitutes a direct farm marketing enterprise?

An example definition for direct farm marketing is:

"A retail enterprise operated as an accessory use to an active farm operation on the same premises, that is engaged in the sale of grain, fruit, produce, trees, shrubs, flowers, meats, processed foods or other products of agricultural operations, or gifts, clothing, beverage tastings, prepared foods, food and drink service, and other items that promote the sale of agricultural products, and including breweries, cideries, distilleries, wineries, and juice production that are not otherwise specifically defined as a farm operation."

This definition both broad enough, and yet limits such enterprises to being accessory uses to an active farm operation. It can be supplemented with more specific definitions for some activities, such as a farmstand:

> *"A permanent or temporary structure and accessory use to an ongoing agricultural operation, with or without appurtenant open display area, for the retail and wholesale sale of agricultural produce and other natural, processed or manufactured food products which are directly linked to and promote the use and sale of agricultural products."*

Other supplemental definitions that should be considered for specific types of direct farm marketing are definitions for on farm breweries, cideries, distilleries, and wineries.

Depending on their character, municipal site plan review and approval with basic site design standards is an appropriate zoning tool for some direct farm marketing enterprises. Small farmstands or small self-serve stores in existing structures that meet simple design standards such as adequate parking set back from the shoulder of streets and roads, limits on size, and signs, may be approved through a building permit review process. For larger direct marketing enterprises that invite the public onto the premises, municipal site plan review and approval with basic site design standards is appropriate (see Site and Design Standards section).

COMMERCIAL FOOD PROCESSING

Small-scale on-farm commercial food processing, including baked goods, jams and jellies, pickles, and canning, can be another source of supplemental revenue for an agricultural operation. These businesses can also help fill a major gap in the local and regional food systems and promote "buy local" economic development. Commercial food processing operations however need to be listed as an accessory use to an ongoing agricultural operation and defined in a manner that ensures they are a subordinate activity to the operation. It is appropriate to include in the zoning code limits on square footage, or the number of non-resident employees working at the business as a means of maintaining the small scale "cottage" character of the business. An example definition for on-farm food processing is:

> *"The production or processing of whole fruit and vegetables, baked cakes, muffins, pies or cookies, candy, jellies, jams, preserves, marmalades, and fruit butters, cheeses, butters, and other milk derived products, meats and meat products and other foodstuffs, as regulated by state and federal law, for wholesale or retail sale, and operated as an accessory use to an active farm operation engaged in the production, preparation and marketing of crops, animal husbandry, livestock and livestock products as a commercial enterprise."*

Note that this definition does not limit the on-farm food processing enterprise to using fruits, vegetables, milk or other products of the active farm operation. As with the case of farm breweries, cideries, distilleries and wineries, a host farm likely does not produce all the ingredients utilized in the food processing operation, especially in the case of seasonal fruits and vegetables, or for a bakery operation. The primary objective of permitting such businesses in zoning however is not necessarily to provide outlets for the production of the farm, but rather provided a supplemental revenue stream for the larger agricultural operation.

Site plan approval is appropriate for such uses. Although they usually ship their product in small lots, these small commercial kitchens do generate some van or truck traffic, especially if they engage in internet-based marketing that requires daily pick-up of merchandise. Some also conduct direct sales to the general public, which justify site plan review as a means of protecting the health and safety of the general public (See Site and Design Standards section).

FARM BREWERIES, CIDERIES, DISTILLERIES, WINERIES

Small-scale on-farm breweries, cideries, distilleries and wineries can be another source of supplemental revenue for an agricultural operation. These businesses can also help fill a major gap in the local and regional food systems and promote "buy local" economic development. These operations however need to be listed as an accessory use to an ongoing agricultural operation and defined in a manner that ensures they are a subordinate activity to the operation.

Example definitions for on-farm breweries, cideries, distilleries and wineries are:

On-farm brewery:

> *An enterprise engaged in the production for sale of beer, operated as an accessory use to an active farm operation on the same premises, licensed and regulated as such by the State of New York, and including as subsidiary activities the sale of gifts, clothing, beverage tastings, prepared foods, food and drink service, and other items that promote the sale of agricultural products.*

On-farm cidery:

> *An enterprise engaged in the production for sale of cider, operated as an accessory use to an active farm operation on the same premises, licensed and regulated as such by the State of New York, and including as subsidiary activities the sale of gifts, clothing, beverage tastings, prepared foods, food and drink service, and other items that promote the sale of agricultural products.*

On-farm distillery:

> *An enterprise engaged in the production for sale of liquor is manufactured primarily from farm and food products, operated as an accessory use to an active farm operation on the same premises, licensed and regulated as such by the State of New York, and including as subsidiary activities the sale of gifts, clothing, beverage tastings, prepared foods, food and drink service, and other items that promote the sale of agricultural products.*

On-farm winery:

> *An enterprise engaged in the production for sale of wine, brandies distilled as the by-product of wine or other fruits, or fruit juice, operated as an accessory use to an active farm operation on the same premises, licensed and regulated as such by the State of New York, and including as subsidiary activities the sale of gifts, clothing, beverage tastings, prepared foods, food and drink service, and other items that promote the sale of agricultural products.*

Site plan approval is appropriate for such uses. Some also conduct direct sales to the general public, which justify site plan review as a means of protecting the health and safety of the general public.

Since these types of farm enterprises invite the general public onto the premises and can also generate increased traffic to and from the location, municipal site plan review and approval with basic site design standards is appropriate (see Site and Design Standards section).

FARM WORKER HOUSING

Farm worker housing, both seasonal and year-round housing for farm laborers, and is included in the term "on-farm buildings" in the definition of farm operations in the Agriculture and Markets Law, Sect. 301. For some farm operations, farm worker housing is a necessary accommodation for their workers due to the long workdays, sometimes 24-hour operations of farms, and the often on-call nature of the profession. Farmworker housing can also address the shortage of nearby affordable rental housing in many rural areas. The use of manufactured homes (a.k.a. mobile homes) as farm worker housing is a common practice, as is the placement of the housing on the same parcel of land as other farm buildings. Local zoning may not require farmworker housing to be sited on a separate or subdivided parcel, so long as minimum zoning setbacks from property lot lines, any required setbacks between buildings, and public health laws requirements for adequate water and sewage disposal facilities are met.

Towns with agricultural operations that may require farmworker housing should provide for it in their zoning regulations. It should be listed as an accessory use to an active farm operation and clearly defined in the definitions section of the regulations. In the interest of clarity, the definition of farmworker housing should include manufactured homes, modular homes, and stick-built homes as an option. An example definition for farm worker housing is:

> *"A dwelling or dormitory unit located on an active farm operation that is accessory to such operation which may be occupied by employees of the farm and their families, or unrelated employees of the farm, which may consist of manufactured homes, modular homes, and which may be located on the same parcel."*

Towns may impose reasonable conditions such as occupancy by farm employees and their families, and parking provisions. Elevated levels of review, such as site plan approval or special use permit approval, that are not required for similar types of dwellings may be consider an unduly burdensome regulation of a farm operation and should be avoided.

HOME OCCUPATIONS

Working from the home has been a feature of American culture from colonial times, and "home occupation" is a standard in the list of permitted accessory uses in zoning regulations in the United States. Generally, a home occupation is the use of space in a personal residence for a professional or service type business or employment activity that is secondary to the residential use of the structure and does not affect the residential character of the home. A home occupation generally does not include non-resident employees and does not attract walk-in or drive-in clients or customers. An example definition for home occupations is:

> *"A business conducted within a dwelling, or a building accessory thereto, by a resident of the dwelling, which is clearly incidental and secondary to the use of the property for residential purposes, and which is the type of business that is customarily conducted within a dwelling or building accessory thereto."* - Town of Ithaca Zoning Code

Home businesses are like home occupations but more flexible. As with home occupations, these are permitted accessory uses to the primary residential use of the dwelling or residential property and operated by a resident of the premises. They differ from home occupations in that a limited number of employees may also be permitted (three is a common number), and they attract a limited amount of walk-in or drive-in traffic to the site.

In urban and suburban areas examples of such home-based businesses or professional offices are architects, attorneys, dentists, doctors, engineers, and financial consultants. More importantly, from the standpoint of agriculture, they include veterinary offices and service businesses that specialize in agriculture and need to be accessible to their client base.

> *"An office of an accountant, business consultant, financial consultant, attorney, architect, engineer or other design professional, forester, medical or dental professional, veterinarian or other related occupations located within their residence or an accessory building, where activities are limited to providing services not involving direct sale of goods, as an accessory use to a dwelling or farm operation, and not occupying more than 600 sq. feet of gross floor area, and not employing more than 3 employees not living on the premises."*

Due to their small scale and other characteristics, home occupations can be listed as a permitted accessory use, without site plan approval or special approval requirements. Site plan approval however is an appropriate level of review for home-based businesses or professional offices, to ensure the health and safety of employees and customers of the business, and compliance with zoning and site design standards.

SIGNS FOR AGRICULTURE AND RURAL BUSINESSES

Most local governments have regulations governing signs in a separate sign law or as a regulation nested within their zoning code. However, farms and many rural businesses are often located off main highways and lack the exposure businesses located on main highways enjoy. Moreover, they can be difficult to find by first-time customers as well as out-of-town visitors and tourists. The business directional sign concept allows such agriculture related and other rural businesses to erect signs off their property for the purpose of directing prospective customers to their location. Business directional signs may be placed at intersections, upon receipt of a permit from the local government and the permission of the host landowner. An example definition for business direction signs is:

> "*A sign located off the premises on which a business is located, not exceeding nine square feet in area, posted by the business along a public road or highway for the purpose of guiding prospective customers to their location.*" - Town of Geneva Zoning Code

Some basic standards for business directional signs are:

- In any zoning district where business directional signs are allowed, there shall be allowed no more than two such signs within the Town for any one business
- No business directional sign shall exceed nine square feet in area, nor exceed five feet in height at the top of the sign
- No business directional sign shall be placed more than 500 feet from the intersection at which prospective customers are being directed to turn off the road or highway along which said sign is located
- No business directional sign shall be located more than two miles from the business that it advertises

LOT REQUIREMENTS/DENSITY CONTROLS/SETBACKS

Controlling density has been a key objective of zoning regulations since their establishment, and the primary tool for achieving this has been setting minimum requirements for lot sizes, and minimum setbacks between structures and property lines, including public road rights of way. In rural areas without public water and sewer infrastructure, minimum lot sizes and setbacks also serve to protect the public health.

In most cases, the standard lot size and setback requirement in zoning regulations are not a major issue for agricultural operations, especially when they are applied uniformly to all uses in a zoning district. Problems can arise however when agricultural operations are treated differently, and subject to different, often larger setback requirements or lot size requirements. These additional requirements imposed on agricultural operations can have significant negative impacts on efficiency and economic viability of a farm. Examples include setbacks of sometimes 200 to 300 feet or more for barn structures and manure handling facilities. In an extreme case, a requirement for a 200-ft. setback from the property line of any "…manure, dust- or odor-producing substance…" has effectively rendered a longstanding farm operation illegal in one community.

It is important for communities to review the dimensional requirements in the zoning regulations to ensure that they are both reasonable, and do not unfairly target their agricultural operations or place unreasonable burdens on their ability to maintain their economic viability.

RENEWABLE ENERGY

The movement toward renewable energy in New York today is presenting both opportunities, but also challenges, for municipal governments and farmers. Investment in smaller scale, non-commercial solar and wind energy systems to produce electricity to support their operations can reduce energy costs for farmers, while reducing reliance on fossil fuel energy sources. Large scale solar and wind energy developments, often referred to as commercial solar and wind energy, and which produce renewable energy for sale to the electric power grid, however, can have major implications in terms of agricultural land resources, and impacts to host communities. More information on solar energy development and agricultural lands is available at Onondaga County's website regarding best practices for agriculture and solar and resources to help regulated and

review solar energy systems (SOCPA Best Management Practices for Agriculture-Friendly Projects, 2021; SOCPA Solar 101, 2021).

NON-COMMERCIAL ON-FARM RENEWABLE ENERGY SYSTEMS

Non-commercial renewable energy systems, whether solar or wind, are appropriate accessory uses to agricultural operations and should be permitted as such in zoning codes. Certain guidelines for governing the siting of solar arrays are appropriate, including:

- All solar arrays should meet all applicable setback requirements of the zoning district in which they are located, and should be located within the side or rear yard of the property
- The height of any solar array and its mounts should not exceed 15 feet or the height restrictions for accessory uses, whichever is greater, of the zoning district in which it is located
- The total rated output of the solar arrays at time of installation should not exceed 110% of the estimated maximum energy demand of the property[2]
- The total surface area of solar arrays, combined with all other buildings and structures on the lot, should not exceed fifty percent of total lot area
- Solar arrays should be located or adequately screened in order to prevent reflective glare toward any roads or highways or inhabited buildings on adjacent properties
- Solar arrays should be located on less productive lands such as inactive farmland, unimproved pasture or other lands, and avoid prime- or farmland of statewide importance
- If possible solar arrays and support structures, including structures for overhead collection lines, should be located at the edge of fields, and avoid or minimize disruptions to farm drainage and erosion control systems
- Access roads should be designed so that they are the minimum required width and built flush with the land surface to permit easy crossing by farm equipment

An example definition for a non-commercial solar energy system is:

> *"A solar photovoltaic cell, panel, or array, or solar hot air or water collector device, which relies upon solar radiation as an energy source for collection, inversion, storage, and distribution of solar energy for electricity generation or transfer of stored heat, primarily for use on the premises."* Town of Geneva Zoning Code

An example definition for non-commercial wind energy system is:

> *"An electric generating facility, whose main purpose is to convert wind energy to electrical energy, consisting of a wind turbine, a tower or other support structure and associated control or conversion electronics, which has a rated capacity of not more than 250 kW and which is intended to primarily reduce on-site consumption of utility power."* Town of Geneva Zoning Code

Although the footprint of on-farm wind energy systems and hence their impacts on land resources is much smaller than solar, consideration needs to be given to potential issues such as height, and

[2] SOCPA. Solar Energy: Best Management Practices for Agriculture-Friendly Projects.

tower failure and collapse. Some standards for siting non-commercial on-farm wind energy systems include:

- Limits on tower height, generally 80 ft. for lots smaller than 1 acre, and 200 feet for larger parcels
- Minimum setbacks from structures and property boundaries, including guy-wire anchors, of 1.5 times the tower height
- No wind energy system shall generate noise more than 50 dBA as measured at the closest property boundary, except during short-term events such as utility outages and/or severe windstorms
- The components of the wind energy system, including turbine blades, shall be coated with neutral colors and non-reflective finishes to minimize potential adverse visual impacts due to reflection and glare
- No exterior lighting shall be permitted on the structure above a height of 20 feet except that which is specifically required by the Federal Aviation Administration

While there is some concern regarding potential visual impacts of small wind turbines associated with their height, they are relatively small objects within the landscape and their visual impact is often reduced by woodland, hedgerows, and roadside vegetation. The following photo shows a small wind turbine located off Canty Hill Road in the Town of Otisco, viewed from a point on Otisco Road approximately 3,800 ft./.75 mi. away.

Small wind turbine located off Canty Hill Road, Town of Otisco, from approximately 3,800 ft./.75 mi. away.

COMMERCIAL RENEWABLE ENERGY SYSTEMS

Commercial solar developments in New York have the potential to occupy hundreds of acres of land. They differ from on-farm non-commercial solar projects, as they sell their output directly to the energy grid for offsite consumption, as well as their much larger scale and land coverage. Commercial solar development however also offers farmers and farmland owners an attractive revenue source and can enhance the economic viability of farms. The challenge for farmland owners and local governments is that most attractive sites for commercial solar development however are relatively flat sites clear of trees and brush, that often are also covered by high quality

agricultural soils. Although originally thought of as a minimal impact temporary use of land, the concrete and steel foundation systems for solar arrays are difficult to remove upon decommissioning. This may result in the permanent loss of high-quality agricultural lands.

Communities should accommodate commercial renewable energy development in their zoning regulations, but with appropriate siting and design controls in place. These can include:

- Construction on farmland designated as prime or farmland of statewide importance should be avoided
- Avoid active farm fields and improved pasture lands wherever possible, utilizing instead un-utilized land
- Avoid floodplains and wetlands, and disturbance of farm field tile and other drainage infrastructure
- To the extent practicable locate solar arrays along the periphery of fields and avoid segmentation of agricultural land
- The maximum height for freestanding solar panels located on the ground or attached to a framework located on the ground should not exceed 15 feet in height above the ground
- The total surface area of solar collectors, combined with all other buildings and structures on the lot, should not exceed fifty percent of total parcel area
- All solar collectors should be located in order to prevent reflective glare toward any roads or highways or inhabited buildings on adjacent properties
- All solar collectors should meet all applicable setback requirements of the zoning district in which they are located, but shall not be installed within 25 feet of any property line
- A landscaped buffer should be provided around all equipment and solar collectors to provide screening from adjacent residential properties and roads
- Removal of trees over 6 inches in trunk diameter should be minimized, or mitigated by replacement tree plantings elsewhere on the property
- Roadways to and within the site should be constructed of gravel or other permeable surfacing and shall be flush with the surrounding land contours
- All on-site utility and transmission lines should, to the extent feasible, be placed underground
- A decommissioning plan with financial surety for the development should be prepared for review and approval as part of the local approval process

Wherever possible, the co-location of solar arrays with compatible land use or agricultural activities such as pollinator habitat creation, animal grazing (sheep, goats, etc.), and the growing of shade tolerant crops such as certain vegetables, should be encouraged. Commercial solar development should be subject to at least site plan approval. Given the potential impacts on land resources, and community aesthetics, a special permit review process may also be appropriate.

An example definition for a commercial solar energy system is:

> "*An area of land or other area used for a solar collection system principally used to capture solar energy and convert it to electrical energy to transfer to the public electric grid in order to sell electricity to or receive a credit from a public utility entity, but also may be for on-site use, and which may consist of one or more freestanding ground- or roof-mounted solar*

collector devices, solar-related equipment and other accessory structures and buildings, including light reflectors, concentrators, and heat exchangers, substations, electrical infrastructure, transmission lines and other appurtenant structures and facilities." - Town of Geneva Zoning Code

Large scale commercial wind energy development has potentially large impacts on community character and requires special consideration in the context of zoning. Its potential impacts on agricultural lands or agricultural operations are significantly less than commercial solar development, however, for agricultural areas there are some recommended standards that should be adopted by local governments. These include:

- Minimize impacts to normal farming operations by locating structures along field edges and in nonagricultural areas, where possible
- Avoid dividing larger fields into smaller fields, which are more difficult to farm, by locating access roads along the edge of agricultural fields and in nonagricultural areas where possible
- All existing drainage and erosion control structures such as diversions, ditches and tile lines shall be avoided or appropriate measures taken to maintain the design and effectiveness of the existing structures, and any structures that are disturbed or destroyed shall be restored
- The surface of access roads constructed through agricultural fields shall be level with the adjacent field surface
- Where necessary, culverts and water bars shall be installed to maintain natural drainage patterns
- All topsoil shall be stripped from agricultural areas prior to construction and stockpiled separate from other excavated material such as rock and subsoil, and immediately adjacent to the area where stripped/removed, and shall be used for restoration of that particular area
- All areas impacted by construction or heavy vehicle traffic shall be de-rocked and de-compacted upon completion of the project
- In cropland, hay land and improved pasture, a minimum depth of 48 inches of cover will be required for all buried electric cables, and in other areas, a minimum depth of 36 inches of cover will be required
- Unless on-site disposal is approved by the landowner, all excess subsoil and rock shall be removed from the site
- Excess concrete will not be buried or left on the surface in any active agricultural areas of the site

An example definition for a commercial wind energy system is:

"*An electric generating facility, whose main purpose is to convert wind energy to electrical energy to transfer to the public electric grid in order to sell electricity to or receive a credit from a public utility entity, but also may be for on-site use, consisting of one or more wind turbines and other accessory structures and buildings, including substations, meteorological towers, electrical infrastructure, transmission lines and other appurtenant structures and facilities.*" -Town of Geneva Zoning Code

The Accelerated Renewable Energy Growth and Community Benefit Act created an Office of Renewable Energy Siting (ORES) to oversee the approval of commercial solar and wind energy developments that will generate 25 MW or more of power per year. This process effectively pre-empts local regulations and review of such projects.

However, Section 900-2.25 of Title 19 of NYCRR Part 900, which governs the ORES review process does require that the location of a proposed renewable energy development conform to all substantive requirements of "local ordinances, laws, resolutions, regulations, [and] standards," including local zoning. The applicant must also state whether the municipality has adopted a comprehensive plan, and whether the proposed renewable energy development if consistent with the adopted plan.

Under NYS Executive Law Section 94-c, the Office of Renewable Energy Siting may elect to apply, or not apply applicable local zoning and other regulations to the proposed development. To override local regulations, the Office must make a finding that the local regulation is "unreasonably burdensome" in view of the renewable energy development and greenhouse gas emission reduction targets set forth in Climate Leadership and Community Protection Act (CLCPA) and the environmental benefits of the proposed facility.

This new State role in the review and approval of large commercial renewable energy projects highlights the need for local government to be proactive. Towns, villages and cities should have in place an adopted comprehensive plan or farmland protection plan that clearly communicates their policy with regard to the protection of their best quality agricultural soils, and a clear rationale for doing so. Local land use regulations also must be clear in terms of which zoning districts such development is permitted, and also have clear design and operating standards for such development, including prohibitions on developing on prime farmland and farmland of statewide importance.

Although local government does not have a direct role in the ORES review process, it can effectively position itself to influence the State's deliberation through its zoning and other regulations.

SUBDIVISION & OTHER LAND USE REGULATIONS

SUBDIVISION OF AGRICULTURAL LANDS

Land subdivisions to create a new building lot, or multiple building lots, can have unintended consequences for agricultural operations if not done in a thoughtful manner. With the size of modern farm equipment, even a poorly subdivided single lot located in the middle of a large field, can disrupt and slow down everything from plowing/tilling to planting to harvesting. Field drainage infrastructure can inadvertently be damaged or destroyed, causing wet soil conditions and lowered productivity. Residential wells drilled too close to a building lot boundary may be

susceptible to contamination from manure spreading. In some communities, bans on spreading manure within 100 or 200 feet of residential wells have been suggested, creating restrictions that could force farmers to take land out of production.

There are several steps that local governments can take to minimize the adverse impacts of subdivisions in agricultural areas. Some consist of amendments to into the zoning code, while others include amendments to the subdivision regulations. In terms of zoning, a good first step is for local governments to review minimum lot size and width requirements. It may be counterintuitive, but permitting smaller lots in agricultural areas, especially in low growth agricultural areas, can preserve agricultural lands better than larger lots. Larger 5- to 10-acre lots are often intended to protect rural character by spreading out the homes and creating large gaps between them. In agricultural areas, however, they result in wasted land – too small to farm and too large to mow. A smaller wider lot configuration, for example a 1.5-acre lot coupled with a minimum lot width requirement of 220 feet in contrast can accommodate a home while also permitting 100-ft. setbacks between a water well, the lot boundaries, and an onsite septic system. This wider lot configuration can reduce the potential for well contamination and provide additional buffer areas between the new home and farm operations on adjacent fields. It also reduces the impact on the agricultural land resources, reserving 3.5- to 8.5-acres for continued agricultural use compared to very large lot zoning. Two-acre or 2.5-acre residential lots, while consuming more land, nonetheless have less impact on the agricultural land resource than very large lot zoning.

FIXED-RATIO (DENSITY-AVERAGING) ZONING

The common method of imposing very large lot dimensional requirements, such as 5-acre or 10-acre or larger minimum lot sizes, does not work well to protect agricultural lands. While large lot zoning can reduce the development potential of rural areas, it can lead to the fragmentation of agricultural lands by locking up land in excessively large residential lots ("too small to farm, too large to mow"). The fixed-ratio zoning and subdivision concept was developed in agricultural counties in southern Pennsylvania in the 1970s as a way of providing farmers with the option of occasional sales of land, usually for a house lot, without triggering large scale development or farmland fragmentation. It reduces the density of development in an area without locking up productive farmland in non-farm residential lots. Also known as "density averaging," the fixed-ratio zoning and subdivision combination can be very effective also in protecting ecologically important and scenic lands.

Fixed-ratio zoning differs from the conventional approach of controlling the minimum size of individual lots. It instead controls the number of lots permitted to be subdivided off a parent tract of land. It also differs in that it sets a maximum permitted lot size for non-agricultural or non-open space uses, as the means to control fragmentation of lands. This "one lot per X acres" approach, – e.g., 5 acres… 10 acres… 20 acres of land – has been proven to be an effective way to control density in rural areas and prevent land fragmentation.

In the following graphic, the conventional subdivision scenario with a 10-acre minimum lot size, would net the sub-divider 8 lots on the 87-acre farm tract. With density set at one lot for each 10

acres of land in the same hypothetical parent tract of 87 acres, up to seven 2-acre lots would be permitted to be subdivided off the parent tract. In this scenario these lots together consume only 16.5 acres of the 87 acres, leaving 71.5 acres in one large tract that can continue in agricultural use. The 7 building lots are also located on the lower quality soils such as pastureland and woodland.

Comparison of large-lot zoning with 8 development lots meeting the conventional minimum 10-acre lot size requirement (left), and a subdivision utilizing the fixed-ratio zoning concept. Note that the parcel in the middle is left out because it is a separate property. Under the fixed –ration approach, the same number of lots is permitted (8), but the 7 lots allocated for residential development are only about 2-acres in size, while 71.5 acres are retained for agricultural use. Fixed-ration zoning can thus conserve agricultural land resources. while still permitting landowners the option of small-scale development.

This fixed-ratio approach can work well because most farmers and other rural landowners are generally not interested in seeing their land developed, but instead need the ability to sell off an occasional lot, as needed or desired. The fixed-ratio approach can satisfy this desire, over a period of years, while maintaining contiguous tracts of productive farmland and other open space. Coupling fixed-ratio density controls and lot size limits with other tools such as flag lots can permit greater flexibility protecting prime agricultural lands.

Because fixed-ratio zoning is designed for use in rural zoning districts with low numbers of subdivisions and involving the creation of a few lots, the tracking of land subdivision is relatively simple. Upon adoption of the new fixed-ration zoning, the size of all affected parcels, along with the number of lots permitted to be created under the new zoning are recorded. As subdivisions occur, they are duly recorded and tracked in this database, until the maximum number of created lots is reached. With GIS technology, this record system can easily be set up and maintained.

FLAG LOTS

A secondary option is to amend the zoning regulations to permit "panhandle" or "flag" lot configurations. These lots are characterized by long narrow strips of land connecting the road

frontage with a lot set back from the roads. The long narrow strip – the "handle" or "flagpole" should be wide enough for a driveway plus buffers on either side (30 feet width = 12-ft wide driveway + 9-ft wide buffers). The portion of the lot where the house would be built must meet the minimum area requirements and lot width and depth requirements outlined in the zoning regulations. This excludes the area occupied by the handle or flagpole portion of the proposed lot.

A legitimate concern regarding the flag lot approach to subdivision is access for emergency vehicles. To permit adequate, year-round access for emergency vehicles, especially heavy firetrucks, the driveway servicing a flag lot, including any culverts, must be designed built to support heavy trucks. This can be address through design standards that require the use of compacted crushed stone to ensure an all-weather surface, even in spring thaw conditions.

In addition to a minimum width of 30 feet for the access strip to the public road or highway, other recommended design standards for flag lots are:

- The driveway shall be a minimum of 12 feet wide shoulder to shoulder, with a maximum gradient of 10%
- The driveway shall be of all-weather construction, with a sub-base consisting of at least twelve (12) inches of compacted crushed limestone or crushed bank-run gravel, with adequate coverage over any culverts
- The minimum radius of any curve in the driveway shall be 50 feet measured from the centerline
- A horizontal clear area measuring at least 10 feet from the centerline of the driveway on both sides, and a vertical clear area of at least 15 feet from the surface of the driveway to the lowest tree branches, shall be created and maintained
- There shall be adequate sight distance in both directions where the driveway intersects with the public road or highway
- Whenever practicable, adjoining flag lots should be platted in a manner that encourages shared driveway access points along public roads and highways

FARM MASTER PLAN

The fact that many subdivisions in rural agricultural areas are occasional subdivisions to create a single lot – often for a family member – contribute to the fragmentation of farmland, impacts on environmentally sensitive areas, and on rural character. Farmers and farmland owners can avoid them, by taking a "big picture" look at their land holdings, and develop a long-term plan regarding where, and when, they might subdivide off lots in the future. It does not have to be a formal, detailed plan, but a vision for what the farm could be in 20 or 30 years in the future. By having a vision for the future, farmland owners can then develop a long-term strategy for subdividing their land. They can then assess the potential benefits and drawbacks of creating development lots in specific locations on the farm and avoid problems down the road. With a vision in place, the steps in creating a simple strategy for subdividing land are:

- Determine the desired number of lots to be created (i.e. the desirable number of non-farm neighbors)

- Consult local zoning and subdivision regulations, code enforcement officials, and health department regulations to determine minimum lot size requirements, including minimum requirements for frontage on public roads, and setback requirements for water wells and septic systems
- Review survey and other mapping for the farm and identify local roads and the length of available road frontage
- Identify areas on the farm that are woodland or brush and meadow, or pastureland (often indicators of poorer soils)
- Identify hedgerows, drainageways and other field boundaries
- Consult with County or local planning departments for information on floodplains, wetlands, and other environmentally sensitive areas of the farm
- Check the soils mapping for the farm, to identify the areas of high-quality soils, and the areas of lower quality soils

With this information in hand the farmland owner can locate sites for future lots based on access from public roads and highways and utilize less productive land for development while protecting the highest quality farmland. They can also limit fragmentation of farm fields by shifting new lots toward hedgerows, property lines, drainageways and other edge locations on their property. With the use of flag lots (if permitted by zoning), the landowner can locate new building lots to woodland areas to rear of productive farm fields that front on public roads and highways, or stack lots behind each other, further minimizing the fragmentation of fields.

Many municipal governments include in their subdivision approval processes a preliminary sketch plan review. Sketch plan review is an informal, advisory review of a proposed subdivision. Although no approval is involved, it can be an opportunity for the landowner to discuss their plan with the Planning Board and get feedback on it. This simple farm master planning exercise can provide the landowner the option of subdividing lots over a period of years, while that also maximizing protection of the agricultural land resources, and economic viability of the farm.

CONSERVATION SUBDIVISION

Local governments should also review their subdivision regulations, and amend if appropriate to permit the use of conservation subdivision design in agricultural areas. Historically, cluster subdivision design, as permitted under Section 278 of Town Law, has been associated with attached housing (townhouse developments in built-up suburban areas). The conservation subdivision concept is a variation of the cluster subdivision concept that has become a useful growth management tool in rural areas where development often takes the form of smaller scale single-family residential development.

A conservation subdivision utilizes the careful placement of individual homes on a site in a manner that avoids productive agricultural lands and environmentally sensitive areas. Due to the lack of public water and sewer, lot sizes are larger (e.g. 1 acre or larger or 210 ft. x 210 ft.) than typical suburban cluster subdivisions on smaller lots. In an agricultural zoning district with minimum lot sizes of 2 acres or 2.5 acres, the conservation subdivision can nonetheless can be an effective tool for protecting agricultural lands, environmentally sensitive areas, and rural character. Through more flexible lot dimensional standards, as well as street design provisions that permit narrower,

low speed and low-volume private lanes to access multiple homes, conservation subdivisions can provide development opportunities for farmers and other owners of large tracts of land, while preserving rural character and the agricultural land base.

In addition, the subdivision regulations should be amended if necessary to require that applications for subdivision include on the proposed subdivision plat any existing drain tile system or other field drainage infrastructure. Any subdivision approval should have as a condition that the subdivision applicant make provisions for preserving such infrastructure, or replacing it where necessary. Such action will prevent field drainage problems upstream and downstream of the subdivision.

Existing Conditions | Conventional Subdivision | Conservation Subdivision

Illustration of the conservation subdivision design approach, from the Dutchess County Greenway Guide.

SITE PLAN REVIEW

The purpose of the Site Plan Review Process is to review plans for specific types of development to ensure compliance with all appropriate land development regulations, compliance with accepted design principles for traffic access and circulation, parking, pedestrian facilities, stormwater management facilities and other design details, and consistency with adopted municipal plans. Generally, in zoning codes site plan review is required for developments where the general public has access to, such as multi-family housing, commercial and industrial development and non-government institutions such as hospitals, private schools, and religious uses. The three primary objectives of site plan review are: 1) to ensure conformance with relevant land use regulations; 2) to ensure the design of the development protects the health and safety of the public that enters the site; and 3) ensure (through SEQR review) that potential adverse environmental impacts are identified and mitigated to the extent practicable.

Agricultural enterprises have historically not been subject to site plan review. With the evolution of direct sales marketing, agri-tourism, and food processing in agriculture in New York, activities that bring the general public onto the farm, however, site plan review is being extended to cover such enterprises. Site plan review should focus on the technical aspects of a proposed development. The municipal review should focus on the following considerations:

- Any proposed site development, including parking areas, should avoid farmland designated as prime or farmland of statewide importance;
- Any proposed site development should avoid floodplains and wetlands, and also disturbance of farm field tile and other drainage infrastructure;
- Compliance with all relevant zoning regulations, including setback and lot coverage requirements, and local government standards;
- The design, layout, and adequacy of traffic and pedestrian access, and egress, and related issues of safety and circulation, both on-site and off-site. This includes consideration of parking and loading areas, and the design and location of signs;
- The design, layout, and adequacy of access for fire and emergency vehicles, equipment, and personnel;
- The design, layout, and adequacy of building materials, landscaping, necessary utilities and appurtenances, and storm water and drainage facilities;
- The design and layout of any lighting for the proposed project, noise impacts, and the design, type and location of any proposed signs;
- Impacts to or upon sensitive environmental areas such as wetlands, streams, ponds, and other water bodies, and proposed mitigation measures;
- Impacts on neighboring properties, and the mitigation of the same through the imposition of reasonable conditions and/or the use of landscaping, screening, and/or buffering.

The site plan review process should be a flexible process, with the level of review reflecting the scale and type of investment being proposed. The design information required for review and approval of a 150 square foot farmstand, with pull-off space for 2 or 3 cars, is much less than the information needed to review and approve a winery, brewery, cidery or distillery that will be attracting hundreds of visitors today. Key to facilitating a comprehensive but efficient site plan review process are clear and concise design standards (discussed in the following section).

SITE AND DESIGN STANDARDS

Clear and concise design standards can facilitate the review of proposed developments by laying out for both the applicant, and the local planning or other review boards, the basic requirements necessary to receive site plan approval or other approvals needed for a project to move forward. Design standards are requirements that must be met or waived (with justification) by a planning board or other review board in order to receive the site plan approval. They should address both public safety and health and reflect the aesthetic expectations of the community. Some examples of design standards include, but are not limited to:

- Restrictions on siting facilities on farmland designated as prime or farmland of statewide importance
- Restrictions on siting proposed facilities on floodplains and wetlands, and disturbance of farm field tile and other drainage infrastructure
- Requirements for landscaping, including landscape buffers along property boundaries and along public roads and highways, required tree plantings in parking lots and size standards for required plantings

- Required number of parking spaces, and minimum dimensional requirements for parking spaces (including bus parking) and traffic aisles, limits on parking in certain areas such as front yard areas
- Required pedestrian facilities such as walkways, paths, crossings
- Size and location of outdoor display areas
- Size and location of signs, including directional signage within the site
- Location of loading docks and other service facilities, and requirements for screening of these facilities
- Outdoor lighting location and design, including requirements that high cutoff "dark sky" lighting fixtures to reduce the impacts of outdoor lighting, including on adjacent properties
- Requirements for stormwater management facilities, including fencing if appropriate and landscaping or screening

SPECIAL PERMIT REVIEW

The Special Permit review is a higher level of review for specific land uses which are permitted in a zoning ordinance or local law, but which may have potential negative impacts on the surrounding area that must be mitigated. A development subject to special permit can be approved, but subject to conditions designed to ensure that the proposed use is in harmony with zoning, and will not adversely affect the neighborhood upon completion. The municipal board authorized to grant special permits shall have the authority to impose such reasonable conditions and restrictions related to the proposed development.

The Department of Agriculture and Markets has determined that any use that falls within its definition of farm operation under Sect. 301 of the Agriculture and Markets Law, will not have any adverse impact will not have adverse impacts to any degree that would warrant special permit review. The application of special permit review to such uses could be considered a burdensome application of local authority to an agricultural operation, and trigger a review of the local zoning regulations as applied to agriculture.

In reviewing its zoning regulations as they may impact agricultural operations, local governments should ensure that agriculture-related enterprises, including those discussed in this report, do not require special permit approval.

Site plan review, in cases where a proposed enterprise will bring the general public onto the farm, is however an appropriate regulatory tool. As stated above, clear and concise design standards can facilitate the review of proposed development and ensure a smooth review process.

FARM FRIENDLY PRESERVATION TOOLS

OVERVIEW

In addition to zoning, subdivision and site plan review, there are several non-regulatory tools available to government and farmers to promote the long-term contributions of agriculture to the local economy. These are voluntary programs that farmers and farmland owners may opt into that provide permanent protection of the land as an agricultural resource. They are attractive

because unlike regulatory approaches to protecting agricultural lands, these tools also offer financial compensation to farmers for the potential reduction in the value of their most valued asset: land. These tools are thus a more equitable approach to protecting land resources.

PURCHASE OF DEVELOPMENT RIGHTS

Purchase of development rights (PDR) as a tool for protecting agricultural lands and other open space has become a popular approach to permanently protecting the land resources, through use of a conservation easement. The conservation easement is a voluntary agreement made between a landowner and another party, such as a government agency or land trust in which the landowner surrenders their rights to develop the land and accepts restrictions that protect the agricultural land and other open space lands. The easement conveys to the easement holder the right to enforce the restrictions on the land. In addition to the voluntary nature of the transaction, the landowner is also compensated for the value of the development rights.

The Environmental Conservation Law (Sections 49-0301 through 49-0311) provide the authority for not-for-profits and municipalities to acquire conservation easements for the purpose of conserving, preserving, and protecting the environmental, historical, and cultural resources of the State, including agricultural lands. In addition, the Municipal Home Rule Law authorizes local governments to adopt local laws for the protection and enhancement of the physical and visual environment, including local laws establishing farmland protection programs to protect agricultural lands through PDR.

The New York State Farmland Protection Implementation Grants (NYFPIG) program has provided funding for the purchase of development rights on farmland since the 1990s. Onondaga County and public and not-for-profit partners have been actively involved in assisting farmers in the county in navigating the application process for participation in the NYFPIG program. In some cases, landowners may donate part of all of the value of an easement. Over 12,000 acres of farmland in the county have been protected through this program.

LEASE OF DEVELOPMENT RIGHTS

A variation of purchase of development rights is the use of voluntary term easements on private lands. Simply put, a municipal government leases the development rights to a property for a specified period of time, usually 25 years or more. Compensation to the property own can be in the form of a lump sum payment at the beginning of the lease, or payment in increments.

In New York, the Town of Perinton in Monroe County has taken a unique approach to the lease of development rights. Since 1975, the Town encouraged farmers and farmland owners to maintain their land in agriculture by giving substantial property tax breaks in exchange for a term conservation easement on the land. As with PDR, the Town Assessment Department takes into account the difference in the value of the land for development, and its value as agricultural land. Instead of a cash payment to the landowner, property taxes are substantially reduced – by up to 90% for a term lease of 15 years on the agricultural land. A condition of the term easement is that the land continues to be actively farmed. To date the Town has placed term conservation

easements on almost 1,500 acres of land. If a landowner violates the terms of the term easement, the Town can levy a penalty on the landowner, and they must forfeit the value of their property tax savings for the previous five years.

Although not widely used in New York, lease of development right can be an attractive alternative to a permanent conservation easement. The term conservation easement gives landowners the flexibility to leave the program should they desire at the end of the lease, and it enables the local government to spread out the cost of easement over a period of years.

APPENDIX A: SELECTED DEFINITIONS

The following table contains the zoning terms and definitions discussed in the preceding sections.

ZONING TERM	DEFINITION
AGRICULTURE	The use of land and on-farm buildings, equipment, manure processing and handling facilities, and practices which contribute to the production, preparation and marketing of crops, animal husbandry, livestock, and livestock products as a commercial enterprise, including a commercial horse-boarding operation as defined in the Agriculture and Markets Law Article 25-AA, Section 301, and timber processing as defined in this zoning law.
AGRICULTURE-RELATED BUSINESS	A retail or wholesale enterprise operated as an accessory use to an active farm on the same premises, providing products or services principally utilized in agricultural production, including structures, agricultural equipment and agricultural equipment parts, batteries and tires, livestock, feed, seed, fertilizer and equipment repairs, or the sale of grain, fruit, produce, trees, shrubs, flowers or other products of agricultural operations, and including breweries, cideries, distilleries, wineries, and juice production that are not otherwise specifically defined as a farm operation.
AGRI-TOURISM	An agriculture-related enterprise, operated as an accessory use to an active farm operation engaged in the production, preparation and marketing of crops, animal husbandry, livestock and livestock products as a commercial enterprise, which brings together tourism and agriculture for the education and enjoyment of the public, and which may include: hayrides, corn mazes, hay mazes, petting zoos (farm animals only), farm tours and agriculture themed festivals and other public or private events.
BUSINESS DIRECTIONAL SIGN	A sign located off the premises on which a business is located, not exceeding nine square feet in area, posted by the business along a public road or highway for the purpose of guiding prospective customers to their location.
BUSINESS OR PROFESSIONAL OFFICE	An office of an accountant, business consultant, financial consultant, attorney, architect, engineer or other design professional, forester, medical or dental professional, veterinarian or other related occupations located within their residence or an accessory building, where activities are limited to providing services not involving direct sale of goods, as an accessory use to a dwelling or farm operation, and not occupying more than 600 sq. feet of gross floor area, and not employing more than 3 employees not living on the premises.
COMMERCIAL SOLAR ENERGY SYSTEM	An area of land or other area used for a solar collection system principally used to capture solar energy and convert it to electrical energy to transfer to the public electric grid in order to sell electricity to or receive a credit from a public utility entity, but also may be for on-site use, and which may consist of one or more freestanding ground- or roof-mounted solar collector devices, solar-related equipment and other accessory structures and buildings, including light reflectors, concentrators, and heat exchangers, substations, electrical infrastructure, transmission lines and other appurtenant structures and facilities.

FARM FRIENDLY MUNICIPAL TOOLBOX

ZONING TERM	DEFINITION
COMMERCIAL WIND ENERGY SYSTEM	An electric generating facility, whose main purpose is to convert wind energy to electrical energy to transfer to the public electric grid in order to sell electricity to or receive a credit from a public utility entity, but also may be for on-site use, consisting of one or more wind turbines and other accessory structures and buildings, including substations, meteorological towers, electrical infrastructure, transmission lines and other appurtenant structures and facilities.
DIRECT FARM MARKETING	A retail enterprise operated as an accessory use to an active farm operation on the same premises, that is engaged in the sale of grain, fruit, produce, trees, shrubs, flowers, meats, processed foods or other products of agricultural operations, or gifts, clothing, beverage tastings, prepared foods and other items that promote the sale of agricultural products, and including breweries, cideries, distilleries, wineries, and juice production that are not otherwise specifically defined as a farm operation.
FARM BREWERY	An enterprise engaged in the production for sale of beer, operated as an accessory use to an active farm operation on the same premises, licensed and regulated as such by the State of New York, and including as subsidiary activities the sale of gifts, clothing, beverage tastings, prepared foods and other items that promote the sale of agricultural products.
FARM CIDERY	An enterprise engaged in the production for sale of cider, operated as an accessory use to an active farm operation on the same premises, licensed and regulated as such by the State of New York, and including as subsidiary activities the sale of gifts, clothing, beverage tastings, prepared foods and other items that promote the sale of agricultural products.
FARM DISTILLERY	An enterprise engaged in the production for sale of liquor is manufactured primarily from farm and food products, operated as an accessory use to an active farm operation on the same premises, licensed and regulated as such by the State of New York, and including as subsidiary activities the sale of gifts, clothing, beverage tastings, prepared foods and other items that promote the sale of agricultural products.
FARMSTAND	A permanent structure and accessory use to an ongoing agricultural operation, with or without appurtenant open display area, for the retail and wholesale sale of agricultural produce and other natural, processed, or manufactured food products which are directly linked to and promote the use and sale of agricultural products.
FARM WINERY	An enterprise engaged in the production for sale of wine, brandies distilled as the by-product of wine or other fruits, or fruit juice, operated as an accessory use to an active farm operation on the same premises, licensed and regulated as such by the State of New York, and including as subsidiary activities the sale of gifts, clothing, beverage tastings, prepared foods and other items that promote the sale of agricultural products.
FARM WORKER HOUSING	A dwelling or dormitory unit located on an active farm operation that is accessory to such operation which may be occupied by employees of the farm and their families, or unrelated employees of the farm, which may consist of manufactured homes, modular homes, and which may be located on the same parcel.
FIXED-RATIO ZONING	A type of low density for the protection of agricultural lands and open space, where the development density is based on the number of residential lots allowed under the zoning, e.g. 1 lot for each 10 acres of land, instead of on the physical size of the lot. Fixed-ratio zoning also

FARM FRIENDLY MUNICIPAL TOOLBOX

ZONING TERM	DEFINITION
	sets an upper limit on non-agricultural lots, usually 2 acres of less. This results in a ratio of 2 acres of development land for each 8 acres or protected land.
HOME OCCUPATION	A business conducted within a dwelling, or a building accessory thereto, by a resident of the dwelling, which is clearly incidental and secondary to the use of the property for residential purposes, and which is the type of business that is customarily conducted within a dwelling or building accessory thereto.
NON-COMMERCIAL SOLAR ENERGY SYSTEM	A solar photovoltaic cell, panel, or array, or solar hot air or water collector device, which relies upon solar radiation as an energy source for collection, inversion, storage, and distribution of solar energy for electricity generation or transfer of stored heat, primarily for use on the premises.
NON-COMMERCIAL WIND ENERGY SYSTEM	An electric generating facility, whose main purpose is to convert wind energy to electrical energy, consisting of a wind turbine, a tower or other support structure and associated control or conversion electronics, which has a rated capacity of not more than 250 kW and which is intended to primarily reduce on-site consumption of utility power.
ON-FARM COMMERCIAL PROCESSING	The production or processing whole fruit and vegetables, baked cakes, muffins, pies or cookies, candy, jellies, jams, preserves, marmalades, and fruit butters, cheeses, butters, and other milk derived products, meats and meat products and other foodstuffs, as regulated by state and federal law, for wholesale or retail sale, and operated as an accessory use to an active farm operation engaged in the production, preparation and marketing of crops, animal husbandry, livestock and livestock products as a commercial enterprise.

APPENDIX B: RESOURCES

Central New York Regional Economic Development Council. 2015. Central New York Initiative Community Economic Development Strategy. www.cnyrpdb.org/docs/reports/CNY_Initiative_CEDS_2015.pdf (Accessed August 2021).

Dutchess County. Dutchess County Greenway Guide: Fitting Into the Landscape. https://www.dutchessny.gov/Departments/Planning/Docs/A1-FittingIntoTheLandscape-BothPages-ReducedSize.pdf (Accessed August 2021).

Freegood, Julia, and Jessica Fydenkevez. Growing Local: A Community Guide to Planning for Agriculture and Food Systems. Northampton, MA: American Farmland Trust, 2017. http://www.farmlandinfo.org/growing-local-community-guide-planning-agriculture-and-food-systems (Accessed August 2021).

NYS Agriculture and Markets Law § 301. (2021) https://codes.findlaw.com/ny/agriculture-and-markets-law/agm-sect-301.htm l (Accessed August 2021).

NYS Agriculture and Markets Law § 305-a. (2021) https://codes.findlaw.com/ny/agriculture-and-markets-law/agm-sect-305-a.htm l (Accessed August 2021).

NYS Department of Agriculture and Markets. Agricultural Districts Law: A Current Summary. https://agriculture.ny.gov/system/files/documents/2020/01/summary-agrdistrict-law.pdf. (Accessed August 2021).

NYS Department of State. 2021. Local Laws and Agricultural Districts: How Do They Relate? https://dos.ny.gov/system/files/documents/2021/09/local-laws-and-agricultural-districts.pdf (Accessed October 2021).

NYS Department of State. Local Open Space Planning Guide. 2007. https://dos.ny.gov/system/files/documents/2019/05/localopenspaceplanningguide.pdf (Accessed October 2021).

NYS Department of State. NYS Department of State. Guide to Planning and Zoning Laws. 2015. https://www.sjcny.edu/files/images/nys-guide-to-planning-and-zoning-laws.pdf (Accessed October 2021).

Syracuse Onondaga County Planning Agency (SOCPA). New York Farmland Protection Implementation Grants. http://www.ongov.net/planning/pdr.html (accessed August 2021).

Syracuse Onondaga County Planning Agency (SOCPA). 2021. Solar Energy Best Management Practices for Agriculture-Friendly Projects http://ongov.net/planning/documents/AgBestPractices05112021.pdf

Syracuse Onondaga County Planning Agency (SOCPA). 2021. Solar 101 and http://ongov.net/planning/solar101.html.

Town of Malta, NY, Local Law No, 2 of 1996, Right to Farm Law. (Accessed October 2021).

Town of Perinton. 2012. Farmland Protection Plan. https://perinton.org/wp-content/uploads/FINAL_complete_Farmland_protection_plan.pdf (Accessed August 2021).

Town of Ithaca NY. Zoning Code. Chapter 270. https://ecode360.com/8661341. (Accessed September 2021).

Town of Geneva NY. Zoning Code. Chapter 165., https://ecode360.com/GE1637?needHash=true (Accessed September 2021).

Town of Lysander NY. Zoning Code. Chapter 320 https://ecode360.com/30924217. (Accessed September 2021).

APPENDIX C: FARMLAND ANALYSIS METHODOLOGY

The following provides the methodology used to analyze important farmland throughout Onondaga County.

APPENDIX D: POTENTIAL FUNDING AND FINANCING RESOURCES

COUNTY AND REGIONAL RESOURCES

Onondaga County IDA

- Revolving Loan Programs
- Sales tax exemptions
- Real property tax exemptions
- Mortgage recording tax exemptions

Central New York Regional Economic Development Council

- REDC CNY Rising
- Regional Council Capital Fund
- Rural Initiative Program (administered by IDA)
- Shovel Ready Program – Infrastructure Fund

Community Foundation

CNY Regional Planning and Development Board

Onondaga County Cornell Cooperative Extension

Onondaga County Soil and Water Conservation District

STATE RESOURCES

Department of Agriculture & Markets

- Farmland Protection Implementation Grant Program
- Central New York Agricultural Industry Enhancement Program
- Agricultural Nonpoint Source Abatement and Control Program
- Good Agricultural Practices Certification Assistance Program
- Organic Certification Reimbursement Program
- Specialty Crop Block Grant

Soil & Water Conservation Committee

- NYS Climate Resilient Farming Program

Empire State Development

- New Farmers Grant Fund
- Environmental Investment Program
- Healthy Food & Healthy Communities Fund
- Regional Council Capital Fund
- Strategic Planning and Feasibility Studies Program
- Economic Development Fund
- Economic Development Purposes Grant Program

Energy Research & Development Authority

- Innovation in Agriculture Grant Program

Grow NY

FEDERAL RESOURCES

USDA

- Market Access Program
- Beginning Farmers and Ranchers Development Program

USDA Natural Resource Conservation Service

- Agricultural Management Assistance Program
- Conservation Reserve Program
- Agricultural Conservation Easement Program
- Environmental Quality Incentives Program
- Healthy Forest Reserve Program
- Conservation Stewardship Program
- Wildlife Habitat Incentives Program
- Emergency Conservation Program
- Conservation Technical Assistance Program

USDA Farm Service Agency loans and other financial assistance programs

- Direct Farm Ownership loans
- Direct Farm Operating loans and microloans
- Emergency loans
- Conservation loans
- Youth loans
- Land Contract Guarantees
- Biomass Crop Assistance Program
- Farm Storage Facility Loan Program

USDA Rural Development loan programs

- Rural Microentrepreneur Assistance Program
- Rural Energy for America Program
- REAP Guaranteed Loans
- Farm Labor Housing Loans and Grants Program
- Rural Business Investment Program

USDA Rural Development grant programs

- Value-Added Producer Grant Program
- Rural Business Enterprise Grants Program
- Rural Business Opportunity Grants Program
- Rural Energy for America Program
    - REAP Grants
    - Energy Audit
    - Renewable Energy Development Assistance
    - Renewable Energy Systems/ Energy Efficiency Improvement Program
- Rural Cooperative Development Grant Program

- Small Socially Disadvantaged Producer Grant Program

USDA National Institute of Food and Agriculture

- Small Business Innovation Research Program
- Community Food Projects Competitive Grants Program

USDA Agricultural Marketing Service

- Farmers' Market Promotion Program
- Local Food Promotion Program
- Organic Cost Share Program

US Small Business Administration

- 7(a) General Small Business Loan Program
- Microloan Program
- CDC/504 Real Estate & Equipment Loan Program
- Disaster Loan Program

US Environmental Protection Administration

- Environmental Education Grants

OTHER RESOURCES

Farm Credit East private loans

- FarmStart
- Young, Beginning, Small Farmer Incentive Program
- CountryFlex equity loans

New York Farm Bureau Foundation for Agricultural Education
Northeast Region Sustainable Agriculture Research and Education (SARE)

- Farmer grant program
- Partnership grant program
- Sustainable Community grant program
- Graduate Student grant program
- Professional Development grant program
- Research and Education grant program
- Agroecosystems Research grant program
- Conference and Workshop Support (technical assistance)

NY Farm Viability Institute grant programs:

- Agricultural Innovation Center
- Outreach and Applied Research

1772 Foundation Grants for Northeast Farmland Preservation
The Fruit Guys Community Fund
Wells Fargo Environmental Grant Program
Monsanto Fund
Cargill Foundation
Northeast Agricultural Education Foundation
The Wallace Center at Winrock International Farm Assistance Grant Program

Jessie Smith Noyes Foundation Sustainable Agriculture and Food Systems Grant Program
Animal Welfare Approved Good Husbandry Grant Program
Surdna Foundation Regional Food Supply Grant Program
    Hannaford Charitable Foundation
    Save-a-Lot community giving program

APPENDIX E: COMMUNITY INPUT

This appendix features materials used at community engagement events held throughout the planning process.

Placeholder: AFBP Meeting notes

AFPP FOCUS GROUP: ENVIRONMENT
Nov 29, 10am

Attendees:

Brian Reeves, Reeves Farm, AFPB Board Chair
Mark Tucker, Tucker Farm, AFPB Board Member
Frank Moses, Skan Lake Association
Tim Creamer, Otisco Lake Preservation Association
Tarki Heath, Tully/Kettle Lakes Association
Jeanie Gleisner, CNY Regional Planning & Development Board
Rich Abbott, Syracuse Water Department, Watershed Quality Manager
Raymond Heer, Heer Farms (no till crop farm)
Will & Patrick Frazee, Frazee Farms
Christina Kohler, Hudson Egg Farms
Lynn Lunch, President of Eno Point Campers Assoc and Op Mgr at Scolarlo law firm
Keith Ward, Tioghnioga Lake Pres Found
Jim & Ryker Smith, Tre-G Farms, Farm Bureau
Mark Burger, OC SWCD
Travis Glazier, On Co Office of the Environment
Erica Tauzer & Jane Rice, EDR
Dan Kwasnowski & Megan Costa, SOCPA
David Skeval & Hilary Chartron-Barthowamew, CCE

Icebreakers:

<u>Advantages:</u>
Lot of Farmland
Great Soils
What County doing to engage in pride in OnCo farms, marketing being done
Accessibility to our farms in the region
Proximity to transportation assets for agritourism and markets
Water Supply for Agriculture

<u>Difficulties:</u>
Need more education of non-ag folks in county, Skan Lake Wshed (eg. manure nutrient applications)
Farmers being persecuted for meeting quality standards

<u>County Support:</u>
Water – common sense approach to water management, allow farmers to keep farming (with innovative solutions and financial help) since all
Crossroads/Sweet Spot in watershed
Reducing risk of too much water, with climate change
Difficulties with too much water, but also times with inadequate water
Stronger education posture for getting word out for what being done and how successful they are
Water is near and dear, with so many benefits, but can be bane of existence
Issues with runoff, better controls as far as nutrient load

Bridge between preserving ag nutrients for ag benefit as well as for watershed protection (farmers don't want to lose those nutrients)
Build pride around good works done to help shift negative attitudes, lot of opps
Anticipate climate change impacts – some kind of resiliency planning program specific to ag community; be prepared for drought
Solar - exercise in T Clay, solar as option for ag operations; some guidance for towns so they don't create policies that prohibit flexibility by farmers; lot of externalities that solar on ag may be able to benefit
PLUG: Hazard Mitigation Plan and Solar Guidance

Slides…

Jamboard:

Natural Resource Concerns:
Pollinators – colony collapse; threats to pollinators

Solar – healthy balance? Overdue state level guidance to idea that state/prime soils ;
Soils are never the same, short term 30 years are non productive ag land
What site prep stds help? How to avoid earthen work, how to blend
Soil types best bet, presence of scrub/brush on top is an indicator

Water Quality - runoff

Resiliency – seeing the highs and lows, are they the new norm? lots more 100 year storms, can only design stream stabilization to certain extent, so what are we doing to look at that in the future; what new opps? Wetlands? Shotwell project example;
Capacity – threats larger than remedy?
Folks chomping for immediate fix, but also marathon running important
Not combine subwatersheds
Challenge to improve capacity
Otisco – challenges looking at streams, ditch cleaned by county, runs through 3 props, then uder road, barriers are the cooperation from all parties, best oto control the strean, and ID responsibility for payment and/or liability, especially downstream
This is the 'back and forth' blame issue
On lakeside can do better maintaining septic and resid runoff, pointing up the hill and down the ill
Land use and land clearing
Solar great on marginal or grazing land but towns resisting,
Find alternate sites – town bldgs.
Tax burden on farmers
Syr water – 62 farm ops down to 46 , fewer operators
Resid and commercial constr, high septic discharge on poor septic soils
Initially farmland, now proposed for devel on poor septic
Dollar value high, developers seeking large tracts of land, and concentrating septic effluent on lots
Concentrating septic
Land devel a major issue
Wetlands – ecosystems services that wetlands provide, anything to conserve open wetlands and potentially create new wetlands/basins in low lying areas for drought times, may be a resiliency action

World renowned watershed protection program (skan and Otisco/OPWA), but no coordinated watershed effort on others (Seneca, oneida, onondaga, tioghnioga, etc.)
How do we get more resources, partnerships, funding etc to other non-drinking watersheds
State co local need to put $ in those watersheds, ag council
Keith – areas where drinking water, better controls, initiate some controls, very hard to get funding, still heavy rains last few years, lots of inflow/debris, and upper part another issue
Detention basins needed, some control of water
Working with farmers, some changes for when they spray, etc..
Lack of funding for those areas, lot of damage being done, and all those places flow somewhere just as needed
If there are lands going out of production, anecdotally more real estate stresses, if there's something there where might not be ag, but smart growth, infrastructure, 50% match to upgrade septic, etc.
Increase sewer lines on Skan Lake to take pressure off farming community
Role of Land Trusts in Farmland Transition
Need to remember sometimes an unintended consequence of water sewer lines is development of that previously open land (eg. water/sewer that went along southern shore Oneida Lake a few years ago)
Will Frazee - chemical or; anyone on lake associations have data what major concerns are? ID relative to nutrients, ID to what degree septic the issue vs ag
Frank - ESF Hyatt Green? Pilot PCR DNA analysis, human, ag, geese, etc.. some scientific options of interest; 9 element plan with data/modeling; SU representative streams characterization of ag/forest coverage in sub-watersheds could do modeling – Initial take on what you've looked at?
Loss of lake buffers!
30k view: great water quality protection; great natural systems, make sure we're maintaining and not creating new problems, and have resources
Monitoring important

Work Needed:
Volunteer monitoring programs?
Homeowners?
Conservation efforts collaborative in nature
Need to have highway depts. involved when talking about water quality (deicing, esp near steep slopes)
Want farms to have buffer of road ditches, and doing great work on-farm, but if Hwy depts. cleaning/clearing the actual road ditches irresponsibly, could use a gentle nudge
Do they maintain often enough? Do they maintain well?
WQUIP
NYS EPF most heavily used; used to be 30 now 3, fed $ dried up
Sometimes the juice of state/fed programs isn't worth the squeeze?
Human resources to push the paperwork; how can entities change the process?
Tell Ag & Markets, others..

<u>Patrick Frazee call:</u>
In a nutshell - 1) be careful placing too much blame on farmers (last slide offensive?) and animal ag for water quality without data showing chemicals in the water; septics are also a core issue; horse farms not regulated, big offender at a local level; organic is not the answer, doesn't provide enough food, 2) He is on Pompey ZBA, and the threat to farming is small scale development, not manlius subidvisions, and 3) To measure solar impacts, suggests looking at yield data (says county collects?) vs soil type; also look for the mapping that shows grid capacity to ID areas susceptible to conversion, very small area in Pompey actually shows potential for solar because of grid capcaity

Frank Moses Follow Up

Some Ag related areas that did not come up today that might be of interest in terms of BMP implementation, education, and research -

- Air quality (esp. ammonia) and emissions reduction strategies
- Continuation of spill response efforts and educating watershed communities of what to look out for and who to call.
- Small farm strategies and efforts for those not participating in whole farm and/or Skaneateles Lake Watershed Ag Program
- Analysis on newly emerging agricultural markets and how they potentially compare to current farming market in regards to risk and opportunity assessment for water quality protection- ie. native plant nurseries, hops, hemp, etc.

Jeanie Follow Up

One other thought, related to the issue of farm viability losses to residential development. I think it would be helpful to have a county-wide circuit-rider kind of effort specifically focused on conservation land use training for agricultural viability for municipal planning and zoning boards. I have found that, although we know the proven effectiveness of some of the tools George Franz introduced in the "Toolkit", municipal leaders almost always need more information on the details of the tools, how they work, case study examples, and assistance in setting up locally sensitive regulatory language when they are ready to act on those best practices. They don't generally ask for that level of assistance, and it's a challenging hill to climb to make the local evel progress needed in terms of land use regulation updates.

ONONDAGA COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN

Natural Resources Focus Group

November 29, 2021

ONONDAGA COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN

Prepared For

Onondaga County Agriculture & Farmland Protection Board (AFPB)
Onondaga County Legislature

Project Team

Syracuse-Onondaga County Planning (SOCPA)
Cornell Cooperative Extension of Onondaga County (CCE)
Onondaga County Soil & Water Conservation District (SCWD)

Consultant Team

EDR (Environmental Design & Research)
KK&P
George Frantz & Associates

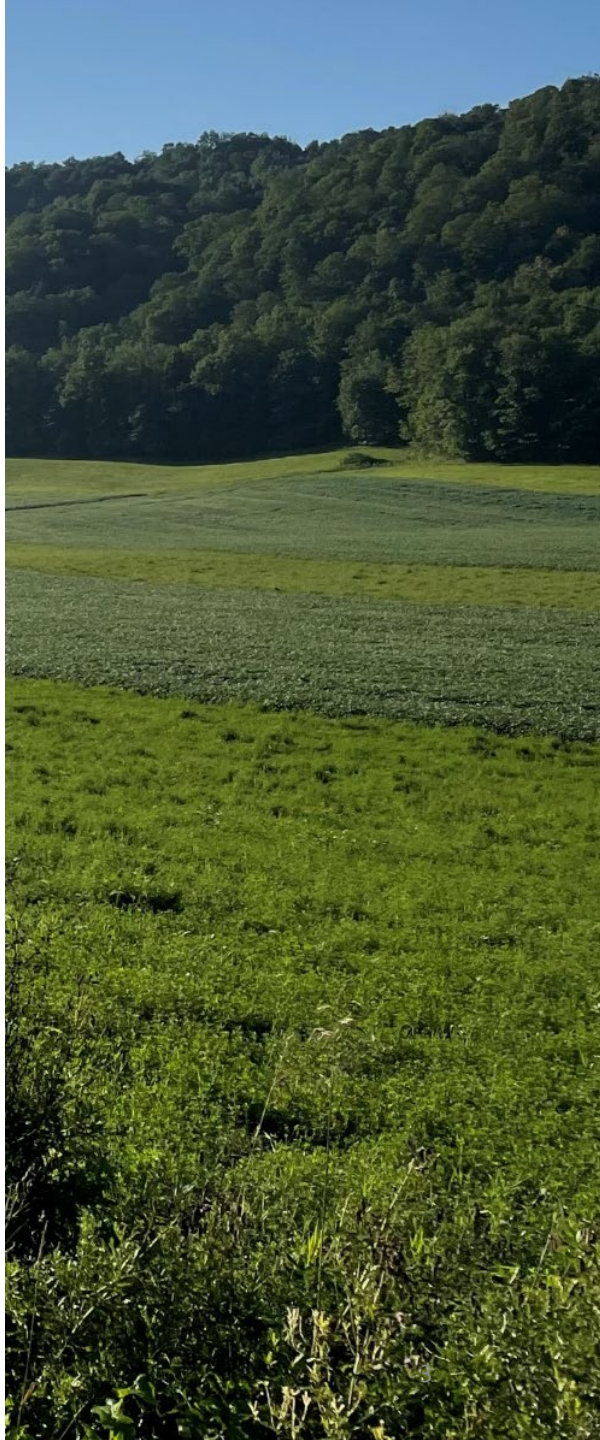
Agenda

1. Overview of the Agricultural Plan (5 mins)

2. Ice Breaker Questions (15 mins)

3. Review of Relevant Data and Gaps (10 mins)

4. Focus Group Questions (1 hour)



Purpose of Ag Plan

Report on the State of Onondaga County's Agriculture

Develop a Shared Vision for Agricultural Economic Development and Farmland Protection

Create Actionable Strategies to Increase Agricultural Viability

Increase public awareness and interest in Onondaga County agriculture

Project Elements

Engagement - Farmers, Municipalities, & Public

- Municipal Survey
- **Focus Groups**
- Public Meetings
- Pop- Up Events
- Website / Social Media

Agricultural Profiles

- Community
- Economic
- Market Trend Assessment

Farm-Friendly Toolbox

Farmland Mapping Tool

Vision & Goals for Agriculture

Implementation Plan

- Venture Proposals

Purpose of Focus Groups

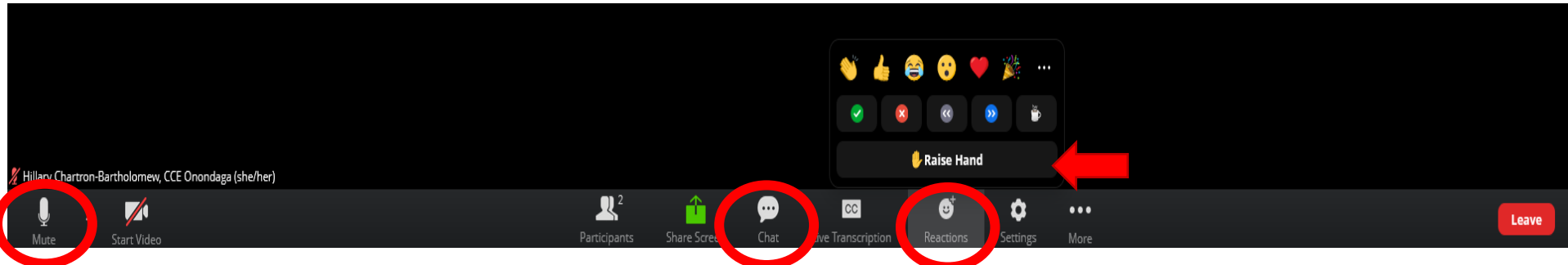
Let us know your thoughts on the county's agriculture & food system

- Environmental, economic, or social connections
- Impact of local resources and regulations
- Barriers and opportunities for growth and viability

Basic Zoom Controls

- **Audio/Muting** – All participants will be muted upon entry, you can unmute to speak
- **Chat** – For technical issues or comments
- **Raise Hand** – To be called on so you may unmute and speak
- **Test it out** – Send your name and organization in the chat

Helpful Hint: Move your cursor if controls disappear from your screen



General Questions / Ice Breakers

Please introduce yourself briefly before answering!

Local Advantages and Strengths	What are the advantages of Onondaga County over other areas when it comes to agriculture?
Local Needs & Barriers	What makes farming in Onondaga County difficult? What are ways to overcome these barriers?
Future Growth & Opportunities	How can Onondaga County better support agriculture and the local food system?

General Questions

Local Advantages and Strengths	**What are the advantages of Onondaga County over other areas when it comes to agriculture?**
Local Needs & Barriers	What makes farming in Onondaga County difficult? What are ways to overcome these barriers?
Future Growth & Opportunities	How can Onondaga County better support agriculture and the local food system?

General Questions

Local Advantages and Strengths	What are the advantages of Onondaga County over other areas when it comes to agriculture?
Local Needs & Barriers	**What makes farming in Onondaga County difficult? What are ways to overcome these barriers?**
Future Growth & Opportunities	How can Onondaga County better support agriculture and the local food system?

General Questions

Local Advantages and Strengths	What are the advantages of Onondaga County over other areas when it comes to agriculture?
Local Needs & Barriers	What makes farming in Onondaga County difficult? What are ways to overcome these barriers?
Future Growth & Opportunities	**How can Onondaga County better support agriculture and the local food system?**

Soil & Agriculture

Soils in Onondaga County are some of the best in New York State, over 70% classified as important farmland soils.

Source: USDA NRCS (2021)

Water & Agriculture

Onondaga County has public drinking water sources from the Skaneateles Watershed and the Peble Aquifer.

Most farms within these areas have enrolled in the Whole Farm Planning process to address water quality concerns on farmland.

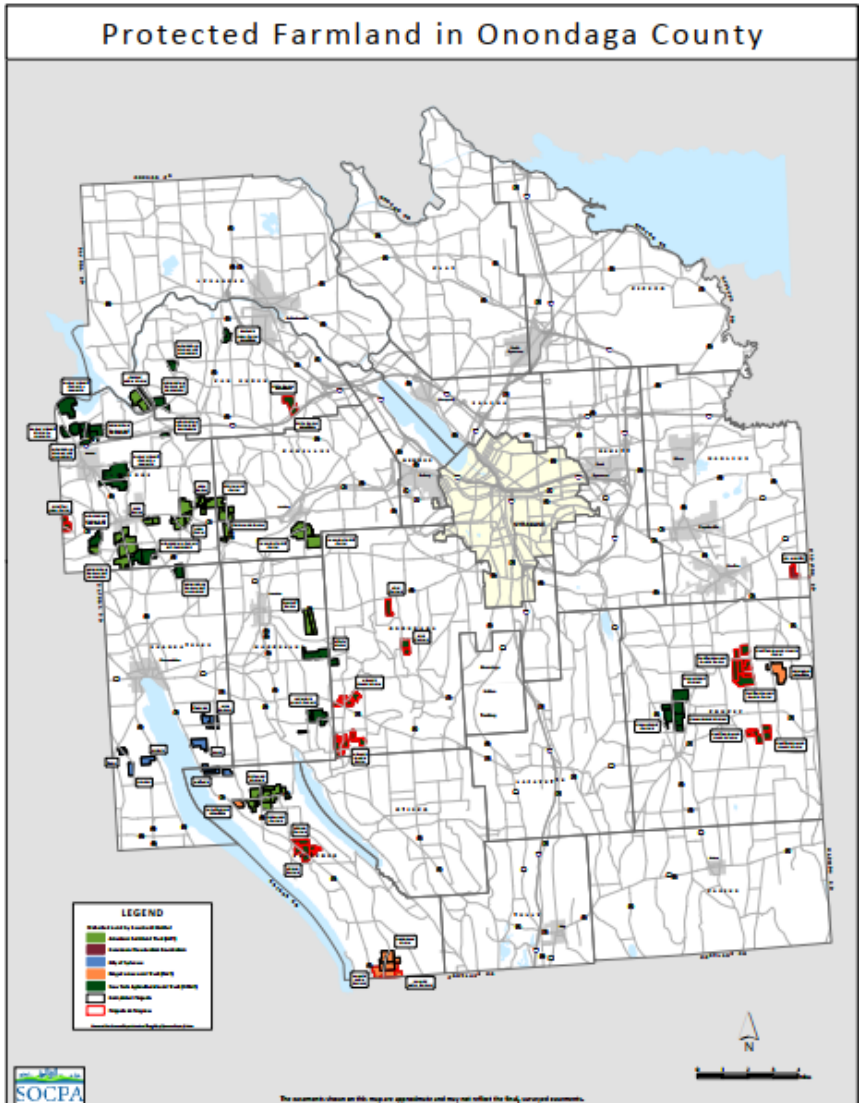
There are other private water systems near agricultural areas.

Purchase of Development Rights (PDR) & Agriculture

Protected lands through PDR in Onondaga County

- Over 30 farms protected
- Over 13, 000 acres protected

For more information on PDR visit: http://www.ongov.net/planning/pdr.html



Natural Resources Focus Group Jam-Board:

https://jamboard.google.com/d/14K12eKCZOuV42OoigQNopBYRKAZU1gXNSw31tWn92gE/edit?usp=sharing

FG NOTES – FARM OPERATIONS
Nov 30 @ 11:00am

Erica Tauzer
Megan Costa
Dan Kwasnowski
Jane Rice
George Frantz
Bart Bossard
Pat Frazee
Will Frazee
Brian Reeves
Douglas Blumer
Kevin Doody
Ed Doody
John Fatcheric
Jim Smith
Nancy Hourigan
Lee Hudson

Slides…

<u>Scale + Needs</u>
Small to Medium dairy: land base needed to farm – 1,700 acres operate (w/ cash crop)
Large to medium: smaller farm – direct marketing vs big claim determines what is needed vs consumer cost of food vs local + fresh
Medium size: land sub division regs would be beneficial
Very large: downsized to small with off farm income

Scale has changed/shifted: local muni leaders don't understand the needs and necessary impacts of farming

Medium – should we grow?
(3 family's) land based issues! Farmers are taking all the land.
2 county + 3 townships Sewer line being proposed which will generate pressure to develop land for non-farmer use
Location of new wells in ag/rural area
County Dept of Health

Sewer and water infrastructure: long-term planning with bigger picture

Pressures: next generation – who wants to run it?
Network can be fragile and mostly word of mouth – connection with educational institutions

Large – 3 counties, 4000 cows/9000 acres/75 employees (50 cows per worker)
Sm/Md/Lg (scale is people to animals)

Need the same land base (tight and competitive leasing) and need same labor
Diversification – size – downsized diary to be organic; robotic (minimal labor) increased efficiency
Land owners may not be local and are not farmers

Land leasing
Waste disposal/community digester – is it worth the effort to invest?

Commercial digging: increases trucking
300 trucks to empty manure pit – one farm with 300 +/- cows. Com. Dig. Will triple truck traffic
On farm digester – one (word with a t) to run several on-farm digesters

Carbon credit vs food waste in digester

Labor issues: biggest competitor for labor is government (handy work up, benefits and predictable hours)

Slintekote

$ per unit needs to go up

Land Use
Solar – looking for location to transmitter or substation; should move transmission lines to better land that is not prime land.
State agencies should be more progressive with long-term planning
Soil recovery time? Decommission plan?
Stop light approach – go (green), maybe pause (orange), no go (red) – incentives, disincentives, fees
Renewable energy via methane: market rate for energy produced by methane digester

Broadband high-speed internet services necessary for farms to become technically more efficient

Milk processing is trending issue: labor issues, inefficient and out of today's standards, need aseptic processing needed

Update technology– need investment into newer technology - co-ops need assistance

Subsidy – Social Issues – Political Issues
Strategic: educational campaign – law makers, middle business person, __? , ___ ?
Spokesperson as 1st line of defense

How do we get general public to understand farming and farmers?
Onondaga Grown campaign
City support/subsidize purchase of local food for school age kids

ONONDAGA COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN

Farming Operations Focus Group
November 30, 2021

ONONDAGA COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN

Prepared For

Onondaga County Agriculture & Farmland Protection Board (AFPB)
Onondaga County Legislature

Project Team

Syracuse-Onondaga County Planning (SOCPA)
Cornell Cooperative Extension of Onondaga County (CCE)
Onondaga County Soil & Water Conservation District (SCWD)

Consultant Team

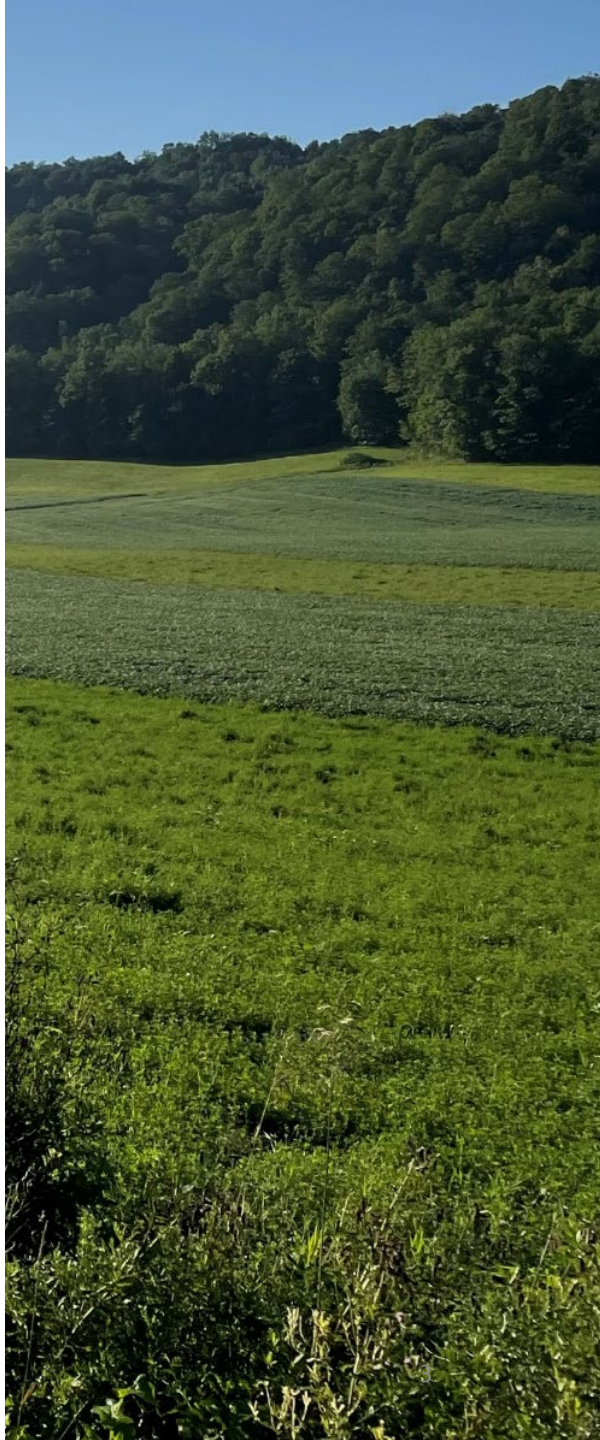
EDR (Environmental Design & Research)
KK&P
George Frantz & Associates

Agenda

1. Overview of the Agricultural Plan (10 mins)

2. Review of Relevant Data and Gaps (10 mins)

3. 4. Focus Group Questions (~1 hour)



Purpose of Ag Plan

Report on the State of Onondaga County's Agriculture

Develop a Shared Vision for Agricultural Economic Development and Farmland Protection

Create Actionable Strategies to Increase Agricultural Viability

Increase public awareness and interest in Onondaga County agriculture

Project Elements

Engagement - Farmers, Municipalities, & Public

- Municipal Survey
- **Focus Groups**
- Public Meetings

Pop- Up Events

Website / Social Media

Agricultural Profiles

- Community
- Economic
- Market Trend Assessment

Farm-Friendly Toolbox

Farmland Mapping Tool

Vision & Goals for Agriculture

Implementation Plan

- Venture Proposals

Purpose of Focus Groups

We want to hear from you about your thoughts on:

- Local resources and regulations that impact farms or the local food system
- Economic, environmental, or social connections that should be created or enhanced
- Obstacles to and opportunities for growth and viability, specifically at the local level

Agriculture in Onondaga County

Onondaga County is an agricultural hub

- 600+ farms contributing $300+ million

Onondaga County is in the top 5% of U.S. counties for milk production

- Milk accounts for over half of the county's sales, followed by corn and poultry

As a resource base/food shed, agriculture is strong

- Entire metropolitan population of Syracuse could be fed by agriculture within a 20-mile radius

Agriculture in Onondaga County (con't)

Agricultural producers in Onondaga County tend to be significantly older than the general population in Onondaga County

The number of individual farms has declined over the same period, indicating a trend toward larger farms and consolidation.

Land leased by farmers has increased, particularly in for certain types of agricultural production (specifically dairies and field crops).

Solar energy is competing for farmland: energy systems require 5 to 10 acres of land per megawatt of electricity generated

Relevant Data and Gaps Identified: Farm Ops

Fluctuating commodity prices combined with increasing production costs make it challenging.

Due to climate change, increasing common heat waves are expected to stress livestock and crops and prolong exposure to invasive species, causing farms to increase pesticide use. Additionally, wetter springs can delay planting for crops, reducing yields. Floodwaters may also spread invasive plants.

Who's Farming Today?

Would you refer to your operation as small, medium or large? How do the needs of your operation differ from operations of a different size?

What kinds of crops do you grow and how does that impact the challenges you face?

What challenges exist for new farmers in Onondaga County? How are people working around them?

Are farm succession plans common local ag operators? Why or why not?

What labor issues have you encountered in agriculture?

Specific Questions

LAND USE

What are recent trends in land use practices for farming, and how has that changed the ways you practice agriculture?

What issues and opportunities exist with respect to renewable energy development and agriculture?

Do you have any experiences with local regulations, policies, real property tax assessments,, or programs that discourage/hinder the growth of your operation? If so, can you explain the issue(s)?

TECH. + LOCAL FOOD

What are some trends in technology (or otherwise) when it comes to local agriculture?

Is the lack of cold storage facilities a barrier for you? What would the facility need to be useful for local farmers?

Future Ventures

Here are some projects that may be promoted by the Ag Plan to venture proposals. Any thoughts?

- Manure digesters on farms or community based.
- Broadband (high speed) internet to support agriculture technology (sensory, GPS, GIS, ect…)
- Cheese plant.
- Meat processing.
- Agriculture and food processing waste disposal especially in meat processing.
- Logistics and distribution centers and a transportation and coordination

FG NOTES – AGRITOURISM
Nov 29 @ 12:30pm

Paulie Drexler - Springside Farm
James Smith – Tre-G , Farm Bureau
Mark Tucker – Tucker Farm, AFPB
Brian Reevies, Reeves Farms, AFPB Chair
Dan & Megan, SOCPA
Erica & Jane, EDR
David & Hilary, CCE

Slides…

600+ Farms
1.4% of OnCo Farms do agritourism; identical to Nation, less than state
Onco Agritourism brings in 2x revenue compared to US, less than NYS
Onco: $5.09 agritourism sales for every $100,000 in ag sales ($6.86 NYS)

<u>What is Agritourism?</u>
Anyhting to attract non-farm public to farm props and reason for going has something ot do with product of that farm;
Attracted to farm bc of what
Homestead Farms vs Hobby Farms – not necessarily a hobby
smaller commercial
May not be main occupation, but significant nonetheless
Organic farms, xmas trees
Gotta start somewhere
Scenery and landscape is 'part of the product'
Working landscape – diversity of experience
Pumpkins, fall activities, fun and games, (with accidental learning)
End up asking questions that they don't know who else to ask
Lack of knowledge of general public is always surprising
Really based in education and product(s) at its core
"Agritainment" may not be agritourism

<u>Zoning</u>
At Ag & Markets – some venues loosely defined as agritourism, but is it ag? (wedding venues, etc); issues we wrestle; some breweries that look like farm some don't. *Issues for municipal consideration and farmland protection.
Agritourism zoning to allow for flexibility allowances
Wedding venue in ag district needs to be connected to USDA definition of farming
Pompey, has to be attached to 'farm'. What if wedding income exceeds farm income

<u>Any downside for farmers?</u>
Agritourism is great
Skan zoning / special permits, hearings, etc = works well
Most aren't ag

Largely a win-win

How has agritourism changed?
Pressure to get bigger
Expectations of something new each year
Some original customers complain it's too busy
Careful what you add
Gotten bigger, add, add, add
Ones that stay small don't survive (cost of labor)

Traffic/Parking/Safety
Increased ag tourism = increased traffic from non-farmers, accidents with farm vehicles
Educate those wanting to get in – parking, access
Educate drivers – heed farm vehicle characteristics
Traffic control – where does responsibility lie? Farm, Muni, etc ; maybe muni set up framework, but allow owner to come up with own plan.
Crossing the street a real issue
Skan – special permits used for managing safety
Parking is an important first impression

Resources
Direct Farm Mkt Assoc
Value of networking, conferences, etc.
NAFDMA (conf)
Network locally?
Wish Onondaga Grown would do OnFarm Fest in "off season" or 2x/yr when they can offer free admit
Advertising / Mktg is hard
Help with non-farmer skillsets (logistics, zoning, marketing, people skills, etc)
Social media – helps to have someone; google difficult; need internet

Alcohol vs non-alcohol venues
Small vs large – room for both?

Broadband/Internet access is a good problem (online registration)

Internet sales / searches
Farmers sometimes adapt to agritourism

Venture proposals (eg. pasteurization equip may have helped Tucker)

Not enough to promote the diversity that we have
It is not normal, it is unique, that we can feed Syr Metro ourselves

Highest per capita xmas tree sales – but fake one in dtown syr
Greatly accessible, great central locale
Hard to communicate with other farmers
Hub of Ag in non-nyc NY, need to promote
Tell the story of the benfits of the so-called dirty, smelly farms

ONONDAGA COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN

Agritourism Focus Group
November 29, 2021

ONONDAGA COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN

Prepared For

Onondaga County Agriculture & Farmland Protection Board (AFPB)
Onondaga County Legislature

Project Team

Syracuse-Onondaga County Planning (SOCPA)
Cornell Cooperative Extension of Onondaga County (CCE)
Onondaga County Soil & Water Conservation District (SCWD)

Consultant Team

EDR (Environmental Design & Research)
KK&P
George Frantz & Associates

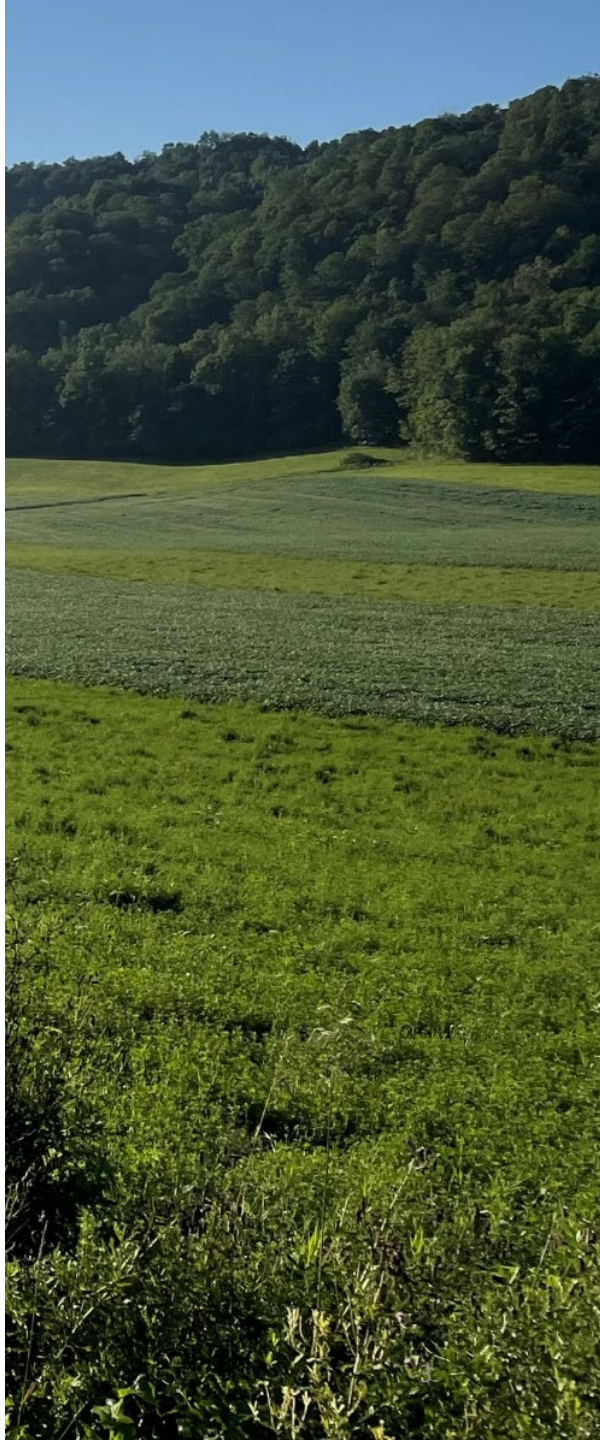
Agenda

1. Overview of the Agricultural Plan (5 mins)

2. Ice Breaker Questions (15 mins)

3. Review of Relevant Data and Gaps (10 mins)

4. Focus Group Questions (1 hour)



Purpose of Ag Plan

Report on the State of Onondaga County's Agriculture

Develop a Shared Vision for Agricultural Economic Development and Farmland Protection

Create Actionable Strategies to Increase Agricultural Viability

Increase public awareness and interest in Onondaga County agriculture

Project Elements

Engagement - Farmers, Municipalities, & Public

- Municipal Survey
- **Focus Groups**
- Public Meetings

Pop- Up Events

Website / Social Media

Agricultural Profiles

- Community
- Economic
- Market Trend Assessment

Farm-Friendly Toolbox

Farmland Mapping Tool

Vision & Goals for Agriculture

Implementation Plan

- Venture Proposals

Purpose of Focus Groups

Let us know your thoughts on the county's agriculture & food system

- Environmental, economic, or social connections
- Impact of local resources and regulations
- Barriers and opportunities for growth and viability

Agriculture in Onondaga County

Onondaga County is an agricultural hub

- 600+ farms contributing $300+ million

Onondaga County is in the top 5% of U.S. counties for milk production

- Milk accounts for over half of the county's sales, followed by corn and poultry

As a resource base/food shed, agriculture is strong

- Entire metropolitan population of Syracuse could be fed by agriculture within a 20-mile radius

Agri-Tourism in Onondaga County

Farms that participate in agritourism

- Onondaga County farms with agricultural tourism sales is nearly identical with national levels (1.4% of farms)
- Lower than the New York State (2.5% of farms)

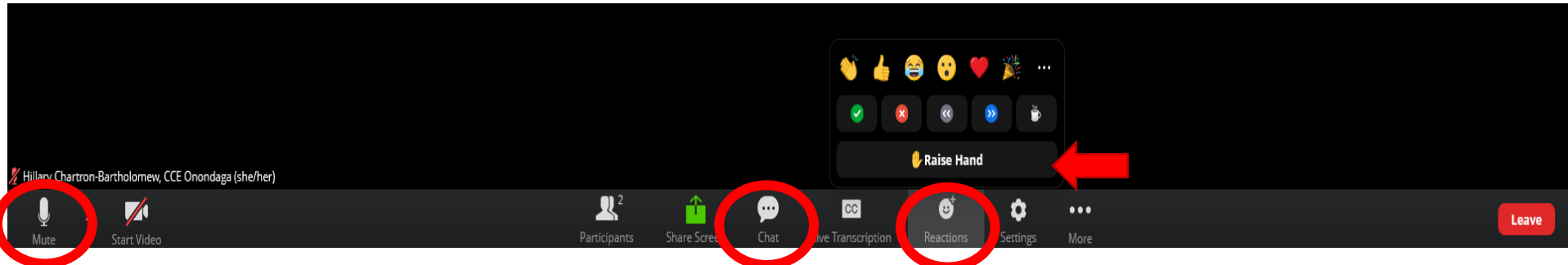
Onondaga County's agritourism brings in twice the revenues compared to US, but less than NYS

- Onondaga County: $5.09 agritourism sales for every $100,000 in ag sales
- NYS: $6.86 agritourism sales for every $100,000 in ag sales

Basic Zoom Controls

- **Audio/Muting** – All participants will be muted upon entry, you can unmute to speak
- **Chat** – For technical issues or comments
- **Raise Hand** – To be called on so you may unmute and speak
- **Test it out** – Send your name and organization in the chat

Helpful Hint: Move your cursor if controls disappear from your screen



Agri-Tourism Focus Group Jam-Board link:

https://jamboard.google.com/d/1Gw6-QuDm96cFHwo2BZEocB1WY415Th3tw6YACz9p8Ls/edit?usp=sharing

AG PLAN FOCUS GROUP – FOOD SYSTEMS & ECONOMIC DEVELOPMENT DEC 2, 2021

Amanda Vitale, CNYRMA
Matt Potteiger, ESF, CNY Food Plan
Brian Reeves, Reeves Farm, AFPB Board Chair
Jenn Smith, Grown NY Program
Len Rauch, Onondaga County Econ Development
John Russo, Russo Produce
Tony Mangano, Emmi & Sons, Inc
Erica, Meg, David, Hilary, Ben, Brian

CNY FOOD PLAN / FOOD SYSTEM

MP: comment on data and local food sales; hard to get; any means to get; USDA getting better but tough
DS: What's a farm? Those $10k..; 75 dairy farms; 15 of those produce half the milk in OnCo.; so most of our dairies are not "big dairy"; same for vegetable; need to look at scale, and way to look at numbers to put a bit more nuance to it.
BK: fair direct, fair wholesale, but FG to build out qualitative data

Food Systems Plan - How can OnCo better support local agriculture? OnCo in scope of NE, dairy dominates; irony that production, structural issues of concentrated poverty so some don't' get adequate food, and farms like other places in global system struggle economically because we haven't looked at it, and need to; potential to think regional local level to address opps; many individuals innovating, but not together. Lot of opportunity to start working regionally.

Got into planning for develop on ag
AV: Once a farm goes out, if not born into it, nearly impossible to afford land and take over ops; hard to do small scale not profitable; people interested but not able to find their way in; when small farm goes out, often taken by larger operation; keeps ag, but not feeding into local sales;
AV: Gaps in local food system, local food deserts surrounding the market; did do a mobile market, but not ultimately consistently successful;
AV: schools local food is a huge struggle in NY, getting fresh product requires manuf and processing; food insecure issues; RMA would like to make the connections/relationships, would be good to have a liaiason between farmers and school district;

Liaison: for schools, for farm starts, for farm transitions, can't do until create the market; some kind of coordinating middle market; have had some niche farm to market efforts but very niche; needs sustenance that can work with govt, stakeholders, etc.; to get connections, funding; BK: coordinator role common, wonder if in OnCo an entity to house

John Russo - school dist, local producers, sat with majority o fproducers, brian, and from that come up with a plan to check all the boxes; problem is there has to be a certain return to farmer to be sustainable

and unfortunately schools can't pay; work with a co upstate growers and packers; doing food boxes, overwrapping, trying to turn total dollars over, need to look at **** How to get the farmer the return they need when dealing with custom orders/customers?? Have a whole business plan, but finding a local processing location hard. Russo has wholesale, but need area to process with food sfety/etc., would need a facility. Market has looked at a few locations and prices high. As a group, actively working on. Would like to stay central @ market. Strong distrib channels for large and small farmers.**

Market self funded, no public funds. No budget to outfit a space. Budget to fund processing; market mgmt. looking at; mkt wants to provide facil, but need people

Jenn Smith: Grow NY food and ag startup, work with REDC's so they can facilitate growth; become familiar with things; creating a virtuous dependence on school district is that processing capacity; wondering degree to which other institutions engaged too (SUNY construction fund); somewhere where pooling and infrastructure can be build so other institutions can rely on local producers/; univ good ideas; had discussed other agencies, like senior living; SUNY largest employer, SU tried but not yet successful

TECHNOLOGY

JS: Given what knows about resources, expand drones to automation/robotics, Genius/Tech Garden applicable; one of the reasons I think OnCo should double down and support programs that are supportive of innov and entrepeneurs in drone/robotiscs, is there creates a draft for workforce development, a way for those not in ag to get involved in food production sector without being a farmer; Erie 21 @ LeMoyne starting in middle school, working with them to try to find some $ in ag tech sector; build skills to build/maintain equipment; secondary issues, but need farmers to use them; Long term investment sector makes sense.

Broadband is prerequisite for tech

Cannibis is coming, so why not get into the game; next 5 years issues to work through

DS: Turnpike Trail; Add subpage to Onondaga Grown search by product; searchable direct sales; rather than separate; not out of realm to create web resource on how to source local food; some efforts in past, but nothing now; keeping up to date a challenge; good to bring local procurement/access; web based social media platform

Social Media campaign @ RMA; Bill LeMann program to highlight; there are farms that don't go to market; great that market highlighting, but others

Even if product created, need to maintain/sustain the team

PRIORITIES:

Talked about:
Buy Local; marketing; media
Processing for institutions
Broadband

How about:
Meat/Cheese processing?
Logistics, Transp?
Biomass production?
Cold Storage? And Flash Freezing, ability for year round use
Diversifying operations in agriculture – diversifying crops or diversifying
Value Chain Coordinator – human infrastructure

A lot of these in place, look at existing resources to work within them; from Russo, both local in season and ship in during off season; challenge to be sustainable doing just local project in our environment; places like Mineo's; expand on local production within existing distribution channels; ride shares/transp company to share product delivery to NYC; food hubs come and gone

Sat with city schools IQFing quick freeze system

Tony Mangano (Emmi): Labor major issues; everyting he grows he sells; labor ine thing going crazy; fed H2A Program; not a lot of local labor; # hrs; more upkeep, ; struggling with cost of labor;

Ag Job fair?
Skilled labor, tractors, harvesting techniques
Robotics, palletizers, robotic technology, mechanics,

Carmen/Joe Emmi – Our family farm 300, down to 150 , love pkg/frozen pkg; can grow as much as need just need right price for product; county help with that
Hard to compete
IF lower threshold to 40 hrs, wont be able to farm again; H2A farmers want the hours even if 60 hr limit; can go elsewhere even though rate higher, by law have to advertise for local lablr ; labor regs,County Lobby governor on labor issues
Not going to be feasible at 40 hours; struggle at 60 ; going to be a time it doesn't work anymore;
Dealing with regs ; looking at getting out of business altogether, roadblocks
Kids gone, no succession,
Willing to do what county wants us to do can't continue labor wage increases and regulation;
Labor when stuff ready to be picked, day off don't want;
Competing with other states
Most of apps for labor from HS kids;

DS: program at RISE immigrant pop training; raised in ag; being acclimated to farm work; pluses for new American program come from that ethic of outside hard labor; maybe catholic charities; a resource in OnCO, but need to

DS: county help with healthcare to migrant workers; farm laborers need healthcare

ONONDAGA COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN

Food Systems / Economic Development Focus Group
December 2, 2021

ONONDAGA COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN

Prepared For

Onondaga County Agriculture & Farmland Protection Board (AFPB)
Onondaga County Legislature

Project Team

Syracuse-Onondaga County Planning (SOCPA)
Cornell Cooperative Extension of Onondaga County (CCE)
Onondaga County Soil & Water Conservation District (SCWD)

Consultant Team

EDR (Environmental Design & Research)
KK&P
George Frantz & Associates

Agenda

1. Overview of the Agricultural Plan (5 mins)
2. Review of Relevant Data and Gaps (10 mins)
3. Focus Group Questions (1 hour)

Purpose of Ag Plan

Report on the State of Onondaga County's Agriculture

Develop a Shared Vision for Agricultural Economic Development and Farmland Protection

Create Actionable Strategies to Increase Agricultural Viability

Increase public awareness and interest in Onondaga County agriculture

Project Elements

Engagement - Farmers, Municipalities, & Public

- Municipal Survey
- **Focus Groups**
- Public Meetings
- Pop- Up Events
- Website / Social Media

Agricultural Profiles

- Community
- Economic
- Market Trend Assessment

Farm-Friendly Toolbox

- Farm-Friendly Assessments

Farmland Mapping Tool

Vision & Goals for Agriculture

Implementation Plan

- Venture Proposals

Purpose of Focus Groups

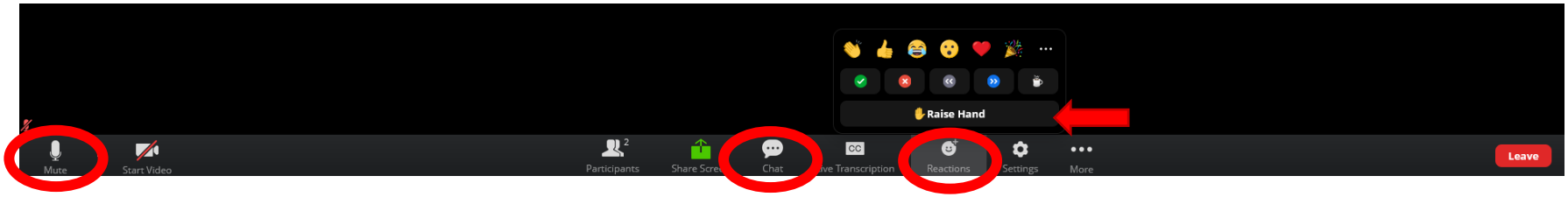
We want to hear from you about your thoughts on:

- Local resources and regulations that impact farms or the local food system
- Economic, environmental, or social connections that should be created or enhanced
- Obstacles to and opportunities for growth and viability, specifically at the local level

Basic Zoom Controls

- **Audio/Muting** – All participants will be muted upon entry, you can unmute to speak
- **Chat** – For technical issues or comments
- **Raise Hand** – To be called on so you may unmute and speak

Helpful Hint: Move your cursor if controls disappear from your screen



Agriculture in Onondaga County

Onondaga County is an agricultural hub

- 600+ farms contributing $300+ million

Onondaga County is in the top 5% of U.S. counties for milk production

- Milk accounts for over half of the county's sales, followed by corn and poultry

As a resource base/food shed, agriculture is strong

- Entire metropolitan population of Syracuse could be fed by agriculture within a 20-mile radius

Gaps identified by Food Plan CNY

Food Plan CNY is part of an ongoing coordinated effort to increase the health of our local food system.

Many people cannot find healthy AND affordable food in their own neighborhoods.

Farmers cannot sustain operations economically.

The region has lost much of its original food processing and distribution infrastructure.

Using a market-oriented approach: Strong food sectors

Onondaga County businesses in the following food and agricultural sectors employ more employees as a share of total county employment than the national average.

In descending order of Location Quotient (LQ), these are:

- specialty food stores (1.81)
- grocery and related product wholesalers (1.78)
- dairy product manufacturing (1.71)
- cattle ranching and farming (1.53)
- grocery stores (1.36)
- alcoholic beverage retailers (1.30)
- support activities for animal production (1.06).

Direct Retail Sales

Direct retail sales (selling directly to consumers via farmers' markets, farm stands, CSAs, etc.) is common in Onondaga County but doesn't garner as many sales as elsewhere in NYS

Onondaga County outranks both NYS and national averages in terms of direct retail sales

- In Onondaga County just over 21% of farms have direct retail sales
- 17% of New York state farms, and only 6% of U.S. farms.

Onondaga County exceeds the national average for % of direct retail sales $, but is less than NYS

- Onondaga County: 2.4% of agricultural sales; National avg 0.7%; NYS average of 4.2%.
- Direct retail sales per capita are higher in Onondaga County ($9.44) compared to the U.S. as a whole ($8.57), but also lower than New York State ($11.40).

Direct Wholesale

A high proportion of Onondaga County agricultural products are sold via direct wholesale (farmers selling directly to local restaurants, grocers, institutions, etc.).

- Over 14% of county sales are sold via direct wholesale
- More than six times greater than the national average of 2.3% and over twice the state average of 5.9%.
- Nearly 6% of Onondaga County farms have direct wholesale sales, exceeding both the national average of 1.4% and New York State average of 4.8%.

Value-Added Product Sales

More Onondaga County farms have value-added product sales compared to the U.S. and New York state.

- Just over 8% of Onondaga County farms sell value-added products
  - New York State ~6%
  - US: ~1.6%.
- Value-added products constitute 2.5% of Onondaga County agricultural sales
  - nearly 2.5 times US average but less than the New York state average of 3.4%.

Food Systems / Economic Development Focus Group Jam-Board link:

https://jamboard.google.com/d/1WJsKUDpcKa20FXdWHtjdkHOKMcJVfdZTApwVo9c0OXw/edit?usp=sharing

EDR

Memorandum

To:	Megan Costa and George Frantz
From:	Erica Tauzer
Date:	July 2, 2021
Reference:	**Meetings with Town of Onondaga and Town of LaFayette to Launch County Ag Plan Farm Friendly Assessments**
EDR Project No:	20242

Below are notes from the introductory meetings for Farm Friendly Assessments in the Towns of Onondaga (held June 30th) and LaFayette (held July 2nd). Feel free to add to this as needed with your own notes.

2021-06-30
Project Team: Megan, Dan, George, Erica
Tony Donito and John Mahar (Dep. Supervisor)

Presentation observations:
Presentation from Megan on Ag Plan – remove the word "audits" (should be assessments)
How exactly *does* the development pressure in Onondaga County compare to other places that have used Lancaster/Maryland? If things start picking up here, we should be monitoring this to possibly recommend TDR in the future.

Issues to Consider:
New types of ag becoming agri-commercial, how does ag infringe on the ever-increasing residential activities, balancing act needed and to date Town feels pretty good about striking that balance, Town of Onondaga has most of Beak n Skiff within the Town
GF: How do you protect things like noise complaints or other issues related to large events? How do we keep the idea from mushrooming/event centers popping up everywhere?
Town: B&S is their own neighbor, the issues occur when smaller farms within ag districts want to become the new B&S and they're in proximity to housing, farmer needs to be a good partner (they hire sherrifs for traffic control), so far so good: no issues have occurred as of yet.

DK: Corridor Plan for Rte 20 to inform DOT management for EcoTourism
Navarro Orchards is big too.

Town of Onondaga Mennonite and Amish populations have expanded rapidly; commercial home businesses require
Solar development – Town does not permit commercial solar in residential or residential country, just in light industrial zone (landfill would be a good spot for it). Use variance is required. This has kept the developers out. There was an individual farmer that wanted to sell to solar as a way to retire; town met with him and said no because it would be an exception to the rule. Zoning based on soil types can make it hard for solar facility layouts and neighbor payments. 2 ac parcels required for areas that are off water/sewer.

PDR- has been supported; conservation easements lock farming in for ag use. The Town sees their zoning for agricultural areas as enough protection given the development pressure, especially when compared to places like the Town of Otisco. Sewer line extensions are expensive and are the main deterrent for sprawl, and 2 acre lot zoning keeps residential from expanding (but in theory could keep the area from expanding).

Smell complaints from liquid fertilizer (DEC receives them); Hourigan Farms is the main instigator, no right to farm law.
Processing/indoor farming/large commercial areas? None identifiable off the top of their head, small vacant areas along Salina/Nedrow with some possibilities

202-07-21
Town of LaFayette: Supervisor Bill McConnell and Councilor Melanie Palmer
Project Team: Megan, Dan, Erica

<u>Issues to consider:</u>
Landowners use small parcels as dumping ground for liquid manure which creates environmental issues; how do young farmers compete? Update to comp plan by B&L; comp plan 2012 original; 2014 LaFayette; hamlet plan too: synergies and AgriTourism

Residents struggle with farm activities; manure storage can create hot spots of resident opposition, education on municipal staff is needed to answer and respond to residents about right-to-farm activities; 20 year residents are now seeing large out-of-town landowners come in and complaining about smells they never had to worry about before.

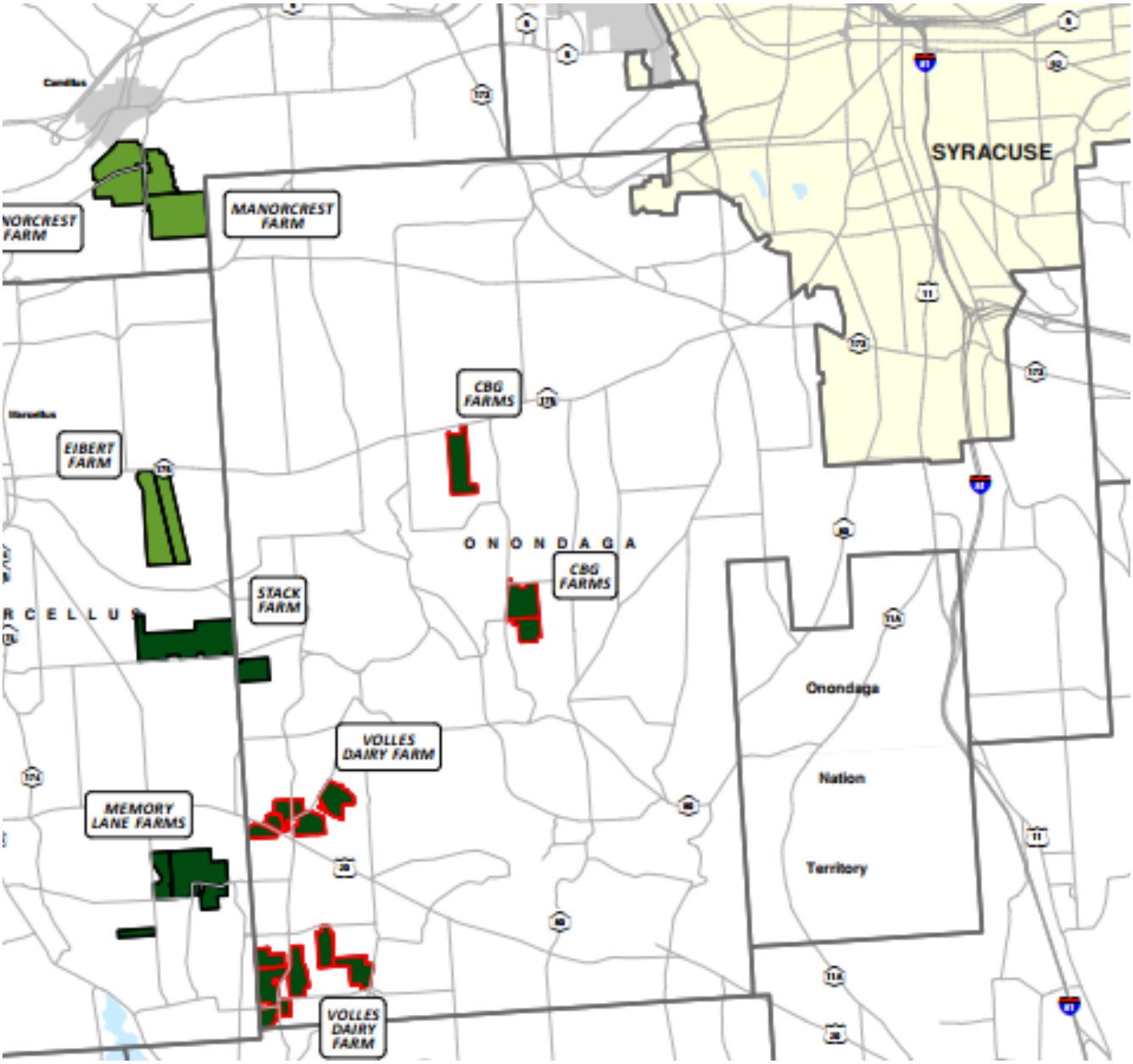
Where are all the young farmers? Would be interested in understanding land succession issues more. How can young people compete as ag operations are getting larger and larger.

Agri-Tourism needs to be the focus; farms that need to make extra income: How to protect the land and viewscape to not be sold off (e.g. solar)? How to make it in the future (llama farm)? Value-added businesses small farm?

Make sure Route 20/Route 80 corridor plan and hamlet plan converge

Over the past 7 years, we've tried to have regional markets but they have failed because of lack of traffic; maybe Cornell could start an incubator farm?

Next Steps:
1. We can present report to Town board- they would like to (August meeting, 2nd Tuesday of the month)
2. Melanie will be go-to person for Town: mjp6331@gmail.com


SYRACUSE
MANORCREST FARM
CBG FARMS
EIBERT FARM
ONONDAGA
CBG FARMS
STACK FARM
Onondaga
Nation
Territory
VOLLES DAIRY FARM
MEMORY LANE FARMS
VOLLES DAIRY FARM

EDR

Memorandum

To:	Megan Costa and George Frantz
From:	Erica Tauzer
Date:	July 6, 2021
Reference:	**Meetings with Town of Cicero to Launch County Ag Plan Farm Friendly Assessments**
EDR Project No:	20242

Below are notes from the introductory meetings for Farm Friendly Assessments in the Town of Cicero (held July 6th). Feel free to add to this as needed with your own notes.

2021-06-30
Project Team: Megan, Dan, George, Erica
Kate Fiorello (Town Engineer), Gabrielle (Supervisor's Secretary), Mark Marzullo, Mike Mirizio (Planning Board), Mark Parrish (Engineer), Mike Becallo (Town Board member)

Notes:
Cicero –suburban community currently; much of which George presented on does not apply and that's ok. It's time to discuss what the future of farming is for the Town. Is what little ag that is left in the Town something that they do want to protect? Even though there is a small base, could there be an increased role in the Syracuse metro food system?

There is about 7-8 farmers; they were too busy to join in because it's farming season.

Right to Farm Law: no?

Town Comprehensive Plan: ongoing for the next year or two, just starting. Comprehensive Planning process is just starting. Citizen volunteers have stepped up (about 24 so far). They would like to bring us into the Comp Plan process in any way possible. One focus that they need to build in: ag zone allows for residential dev but not with the same density; issue is that ag zoned land is converting to residentially zoned land.

Any topics to explore further? Barrone's farm did a hop house/brewery restaurant, and it looks nice (this area is actually zoned commercial but partially ag too; zoning process was easy,). "We hope the farms that we have left stay, and the zones are allowing agriculture, but it is a hard thing to protect what few farms are left".

Solar ordinance is in the process of being drafted; they will send that along. County has some solar guidance on website (specifically how to balance/review projects on ag land), and Town is interested in it.

What is the profit margin of ag lands in Cicero? It seems like they would be high. We should point this out, because there may be a great future in high-value ag produce (e.g. greenhouses).

Residential ag: chickens, bees, etc. – specific design standards, basic language would be helpful. Town is interested.

Next steps:
Questions? Call Kate.
In a month, we'll call with the findings and report back to the board if desired.

EDR

Memorandum

To:	Megan Costa and George Frantz
From:	Erica Tauzer
Date:	July 9, 2021
Reference:	**Meetings with Town of Cicero to Launch County Ag Plan Farm Friendly Assessments**
EDR Project No:	20242

Below are notes from the introductory meetings for Farm Friendly Assessments in the Town of Cicero (held July 6th). Feel free to add to this as needed with your own notes.

2021-06-30
Project Team: Megan, Dan, George, Erica
Town representatives: Sara Bollinger (Town Councilor, Co-Chair of Comp Plan committee), Judie Fenster (100 ac part farm) knit farmland into other uses, Richard Rosetti (Town Planning Board), Doug Miller (Planning and Dev Office as assistant of activities, member of community since 1966), Edward (Town of Manlius Supervisor), Melissa Spicer (Farmer wants to make farm Forever Wild/Forever Farm, grass fed beef, lease farmland to others as well)

Notes:
Recognition that Manlius has unique challenges re: growth management and zoning. That said, has a lot of land in the ag district.

Richard: zoning code is not going to help much with these questions.

GF: This is common throughout NYS; you're not alone. Planners have finally began to catch up to the need for local agriculture in efforts to promote sustainability. Urban agriculture is thought of more regionally in other counties than it is here.

Sarah: Farmland protection is a focus on the comp plan too; need to adjust our Comp Plan efforts to adapt the zoning code.

Edward: Manlius' challenge at this point is that there's not enough farmland left to protect. What can we do to generate more farming incomes for people?

Doug Miller: Silvaculture is becoming more of thing (3-4 farms), microbreweries and small operations, Mulaney off of Pck Hill now leases out, Allen Olmstead real estate agent lives in the town, how can we start promoting things that fly under the radar today?

Meg: Are large dairy farmers buying up land and cutting out smaller farms?

- Town's response: No, largest farm is Gridly but they no longer do dairy. That's not happening here like it is in the southern town.

Melissa: Our next gen of farmers is struggling to see farming in their future. How can the local municipalities keep land in ag and not sell off to renewable energy? We have a historical revolutionary farm tract. Manlius's farmers are interested in keeping large tracts in tact. The farmer community is aware of this

Richard: lack of municipal infrastructure keeps sprawl away.

- Doug's Response: …but there's pressure to expand.

Doug: Another interesting aspect is the diversification and the different types of farming in different areas of the Town, flatter areas have more fruit/flower farming, Nicotra farm stand near intersection in Kirkville is nice.

- GF: Lancaster County now has a farm stand that's larger than small shopping malls. Be careful what you wish for.

Ed: Increased awareness of different varieties of farms in the Town, Would love to promote Manlius in terms of its agricultural land area: are there programs to promote local agriculture?

- Megan will bring this up to the Onondaga Grown campaign.

Richard: Timing couldn't be better; solar is a hot topic. Is there any kind of an IMA? Contract?

- Megan: No- this is a free service for municipalities.

Sara Bollinger: Maybe we could create our own local designation for local agriculture? Like how historic properties are labeled with signs.

Melissa Spicer: A bit of confusion about the County's efforts to protect farmland (specifically "Farm Plan" listed in pre-application) compared to FSA services (CRP) for farm plan. How do these

compare and what does that term "Farm Plan" mean? We just want to do the right thing for our land, but there are multiple programs that .

- Meg: we will take a careful look at this in our data gathering.

Board is seeking moratorium for now re: solar. Have had 7 or so plans, but some of them haven't been serious, only one has been initiated so far. We can all agree that solar is going to be around, so we need to think about it now.

Next Steps:

- Timeline: August to turn over results, public outreach in mid-fall, Late Winter to share results

ONONDAGA COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN

What is the Agriculture and Farmland Protection Plan?

- Update to the 1997 plan
- Reports on the state of Onondaga County's agriculture
- Provides a framework for both protecting our farmland and supporting agricultural viability

Project Team

County (Syracuse-Onondaga County Planning Agency)- principal point of contact for all inquiries regarding the project

Cornell Cooperative Extension - staff resources toward assistance with the planning process in stakeholder engagement and facilitation of the public meetings

Consultant Team

EDR - project manager and primary contact for consultants during this project

George Frantz & Associates - specialist related to local regulations and farmland protection

KK&P – specialists related to food system policy and market assessment

Agricultural and Farmland Protection Board - oversight committee for the plan

Goals of the Agriculture and Farmland Protection Plan

Describe current agricultural conditions in Onondaga County

Develop a shared vision for agricultural economic development and farmland protection

Create actionable strategies to increase agricultural viability

Encourage and support farmland protection

Increase public interest and awareness of local agriculture.

Farmer, landowner and municipal engagement is key.

Link to NYSDAM Circular 1500 Art. 25AA on Ag and Farmland Protection Programs: https://apps.agriculture.ny.gov/rfps/CAFPPGA/Article25AAA_Circluar1500.pdf

Goals of the Agriculture and Farmland Protection Plan

Project Kick-Off

Gathering Data

Modeling and Assessing

Vision and Goal Development

Strategies

Final Adoption

ONONDAGA COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN

Farm-Friendly Toolbox Webinar | October 25, 2021

ONONDAGA COUNTY AGRICULTURE & FARMLAND PROTECTION PLAN

Prepared For

Onondaga County Agriculture & Farmland Protection Board (AFPB)
Onondaga County Legislature

Project Team

Syracuse-Onondaga County Planning (SOCPA)
Cornell Cooperative Extension of Onondaga County (CCE)
Onondaga County Soil & Water Conservation District (SCWD)

Consultant Team

EDR (Environmental Design & Research)
George Frantz & Associates
KK&P

Purpose

Report on the State of Onondaga County's Agriculture

Develop a Shared Vision for Agricultural Economic Development and Farmland Protection

Create Actionable Strategies to Increase Agricultural Viability

Increase public awareness and interest in Onondaga County agriculture

Project Elements

Engagement - Farmers, Municipalities, & Public

- Municipal Survey
- Focus Groups
- Public Meetings
- Pop- Up Events
- Website / Social Media

Agricultural Profiles

- Community
- Economic
- Market Study

Farm-Friendly Toolbox

- **Farm-Friendly Assessments**

Farmland Mapping Tool

Vision & Goals for Agriculture

Implementation Plan

- Venture Proposals

What is the Farm-Friendly Toolbox?

It provides resources for communities to protect farmland through local planning, land use ordinances, and other programs that work.

Basic principles

- Contemporary agricultural enterprises need flexibility to compete
- Agriculture should be promoted to obtain long-term economic viability of in Onondaga County
- Rural character of our communities should be protected from incompatible development

Agriculture today is not what it used to be….

- Complex, capital-intensive business
- Constantly evolving in face of new challenges, new opportunities
- Unstable markets & global competition
- Increasing regulation

Local government decisions impact agriculture

- Comprehensive plans set land use policies that can promote or hinder the long-term trajectory of agriculture in communities
- Zoning regulations impact day-to-day agricultural operations
- Subdivision regulations can impact the agricultural land resources

Changes to New York State Agriculture

	2017	2007	% Change
Number of Farms	33,438	36, 352	-8%
Total Value of Production	$5.369 billion	$4.419 billion	+21.5%
Grains	$572 million	$315 million	+81.0%
Fruits, berries tree nuts	$400. million	$363 million	+10.2%
Livestock, poultry & their products	$3.261 billion	$2.857 billion	+14.1%
Milk	$2.528 billion	$2.280 billion	+10.9%
Cattle	$426 million	$318 million	+34.0%
Direct sales marketing	$316 million	$77.46 million	+308%

*USDA, Census of Agriculture, 2017, 2007.

What is agriculture?

Agriculture and Markets Law (AML) Article 25-AA, Section 301

Definition:

"…the use of land, buildings, structures, equipment, manure processing and handling facilities, and practices which contribute to the production, preparation and marketing of crops, livestock and livestock products as a commercial enterprise or a hobby…"

New York Agriculture Today

New York Agriculture Today

Farm-Friendly Comprehensive Plans

- Recognize the importance of agricultural land as a natural resource and an economic asset
- Document agricultural operations in the community and their characteristics
- Identify the challenges, opportunities weaknesses & strengths of local agriculture

Farm-Friendly Comprehensive Plans

- Recognize the economic potential of a robust, local food and agriculture system
- Move beyond viewing farmland "simply as land in reserve for future urban development"
- Provide a clear set of goals, objectives, and policies to protect the agricultural land resource, and promote the long-term viability of local agriculture

Other Farm-Friendly Plans

Municipal Agriculture & Farmland Protection Plans

- Community-based, farmer guided
- Detailed look at the farm sector and issues it faces
- Tailored recommendations to enhance long-term viability of local agriculture
- Long-term protection of the agricultural land resource
- Long-term viability of local agriculture

Other Farm-Friendly Plans - Open Space Plans

- Detailed look at community open space resources: ecological, recreational, scenic, agricultural lands
- Tailored recommendations to enhance long-term protection of open space resources, including agricultural lands

Other Farm-Friendly Plans
Local Economic Development Plans

- $15.5 billion annually to State's economy
- Key part of the local economic base
- One element in a diverse economic base
- Policies and actions that can promote growth of agricultural sector

Farm-Friendly Zoning

- Promotes agriculture as a legitimate, long-term land use with the same status of other land uses
- Protects the agricultural land asset by channeling development away from actively farmed areas
- Provides farmers the flexibility they need to adapt and compete in a dynamic market
- Avoids unreasonably burdensome restrictions on agricultural operations

Farm-Friendly Zoning
Definitions

- Comprehensive
- Clear and concise
- Ensure the term is defined as you mean it to be defined
- Don’t fall back on the NYS Ag & Markets definitions
- Leave behind commonly used terms (those that can be defined in the dictionary)

Farm-Friendly Zoning
Definitions

- Are they up-to-date?
- Definition of agriculture
- Other key definitions
  - Agriculture-related businesses
  - Agri-tourism
  - Farm brewery, farm cidery, farm distillery, farm winery
  - Farmstand
  - On-farm commercial processing
  - Business directional signs

Farm-Friendly Zoning
Definitions

Agriculture

The use of land and on-farm buildings, equipment, manure processing and handling facilities, and practices which contribute to the production, preparation and marketing of crops, animal husbandry, livestock and livestock products as a commercial enterprise, including a commercial horse-boarding operation, and timber processing as defined in this zoning law.

* Example only. Consult your municipal attorney when amending any zoning regulations.

Farm-Friendly Zoning
Definitions

Agri-tourism

An agriculture-related enterprise, operated as an accessory use to an active farm operation engaged in the production, preparation and marketing of crops, animal husbandry, livestock and livestock products as a commercial enterprise, which brings together tourism and agriculture for the education and enjoyment of the public, and which may include: hay rides, corn mazes, hay mazes, petting zoos (farm animals only), farm tours and agriculture themed festivals and other public or private events."

* Example only. Consult your municipal attorney when amending any zoning regulations.

Farm-Friendly Zoning
Definitions

Business Directional Signs

"A sign located off the premises on which a business is located, not exceeding nine square feet in area, posted by the business along a public road or highway for the purpose of guiding prospective customers to their location."

* Example only. Consult your municipal attorney when amending any zoning regulations.

Farm-Friendly Zoning
Definitions

Farmstand

A permanent or temporary structure and accessory use to an ongoing agricultural operation, with or without appurtenant open display area, for the retail and wholesale sale of agricultural produce and other natural, processed or manufactured food products which are directly linked to and promote the use and sale of agricultural products.

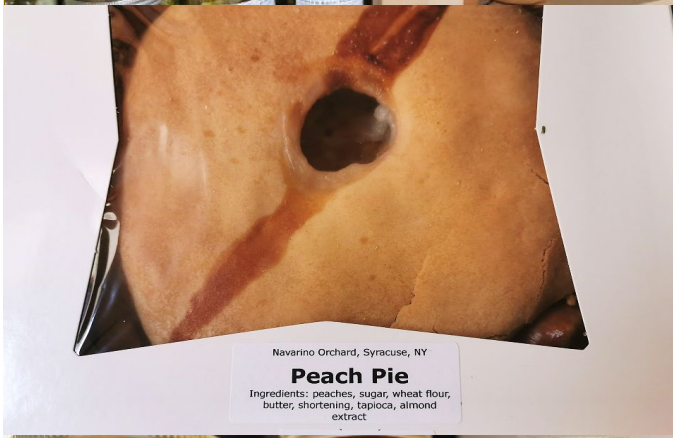
* Example only. Consult your municipal attorney when amending any zoning regulations.

Farm-Friendly Zoning
Definitions

On-Farm Processing

The production or processing of whole fruit and vegetables, baked cakes, muffins, pies or cookies, candy, jellies, jams, preserves, marmalades, cheeses, butters, and other milk derived products, meats and meat products and other foodstuffs, as regulated by state and federal law, for wholesale or retail sale, and operated as an accessory use to an active farm operation engaged in the production, preparation and marketing of crops, animal husbandry, livestock and livestock products as a commercial enterprise.

* Example only. Consult your municipal attorney when amending any zoning regulations.



Farm-Friendly Zoning
Definitions

Farm brewery, cidery, distillery, winery

The production or processing of whole fruit vegetables and grains into beer, cider, distilled spirits or wine for wholesale or retail sale as regulated by state and federal law, operated as an accessory use to an active farm operation, and which may include subsidiary cafes, tasting rooms, gift shops and agri-tourism activities."

* Example only. Consult your municipal attorney when amending any zoning regulations.

Farm-Friendly Zoning
Definitions

By right: permitted with approval of building permit, etc.

Accessory use: a subordinate and incidental use to a primary permitted land use (e.g., agriculture) on the same property

Farm-Friendly Zoning
Definitions

Site Plan Approval: A technical review of a proposed development, generally by a planning board, to ensure conformance with zoning, local design standards, engineering standards and, to ensure the health and safety of the general public entering the premise

Farm-Friendly Zoning
Definitions

Special Use Permit/Special Approval: Higher level of review for proposed development which is permitted in a zoning ordinance or local law, subject to conditions to ensure that the proposed use is in harmony with zoning and will not adversely affect the neighborhood if such requirements are met

Renewable Energy Regulations: **Non-commercial**

- Non-commercial solar and wind renewable energy systems are appropriate accessory uses to agricultural operations and should be permitted as such in zoning codes;
- Protected uses under the “use of land, buildings, structures, equipment” language in the NYS definition of farm operation;
- Should be permitted by right with building, other relevant permits.

Renewable Energy Regulations: **Commercial**

- Commercial wind renewable energy systems are considered generally compatible with agriculture
- Commercial scale solar can present major issues
  - Competition for higher quality farmland
  - Locate on inactive farmland, unimproved pasture or other lands
  - Decommissioning plan to fully restore site critical

Renewable Energy Regulations: **Section 94-c:**

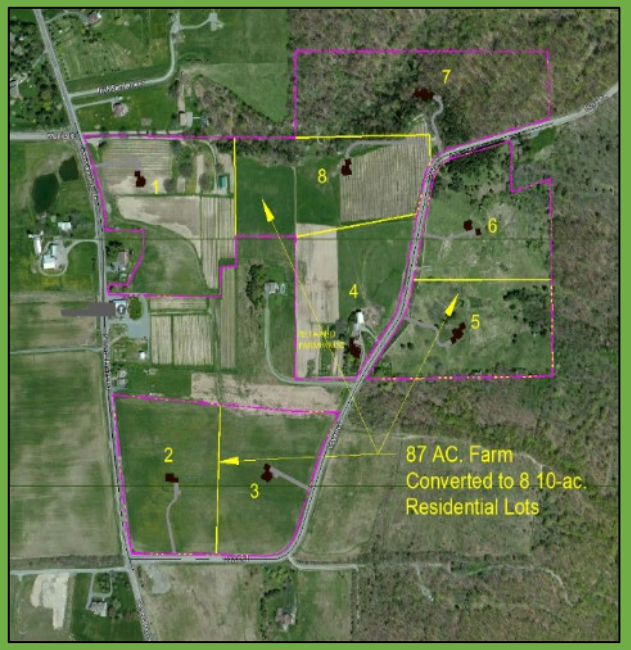
- Office of Renewable Energy Siting oversees approval of solar and wind energy projects with 25 MW/year or more capacity
- Must consider local land use regulations in its review
- Has power to override “unreasonably burdensome” local regulations

Renewable Energy Regulations: **Section 94-c**

- Local land use regulations must be clear:
  - Where such development is permitted, include prohibition on use of best quality agricultural soils
  - Have clear design and operating standards for such development

Fixed Ratio (Density Averaging) Zoning

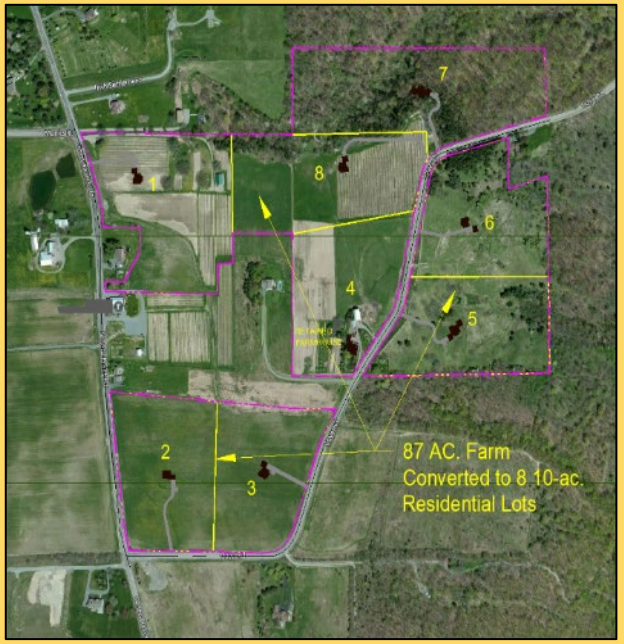
- Zoning and subdivision concept in which density is calculated by number of lots permitted based on acreage (e.g., 1 lot for each 10 acres)
- Permitted lot sizes much smaller: 1 to 2 acres or minimum required for on-lot septic
- Permits small scale low density rural subdivision by landowners
- Can preserve large tracts of agricultural lands



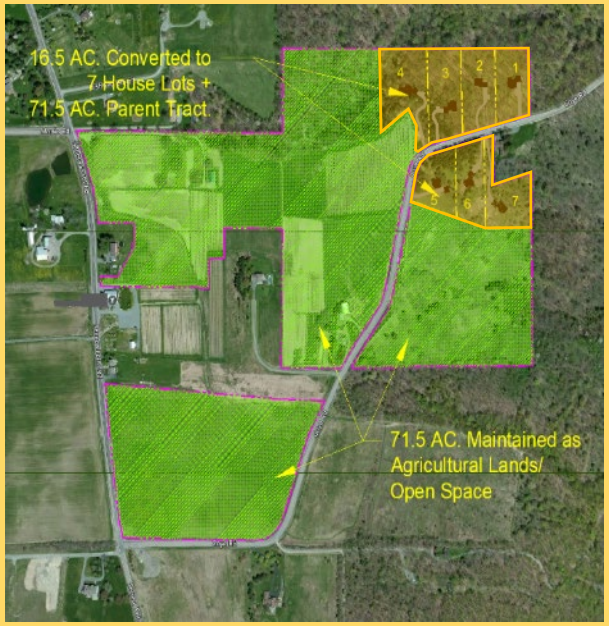
Fixed-Ratio +
Conservation Subdivision

Conservation Subdivision

- Avoids productive agricultural lands and environmentally sensitive areas through careful placement of individual homes on a site
- Utilizes smaller than conventional permitted lot sizes: 1-acre or minimum required for on-lot septic
- Preserves large tracts of open space and agricultural lands, and rural character



Fixed-Ratio +
Conservation Subdivision



Purchase of Development Rights

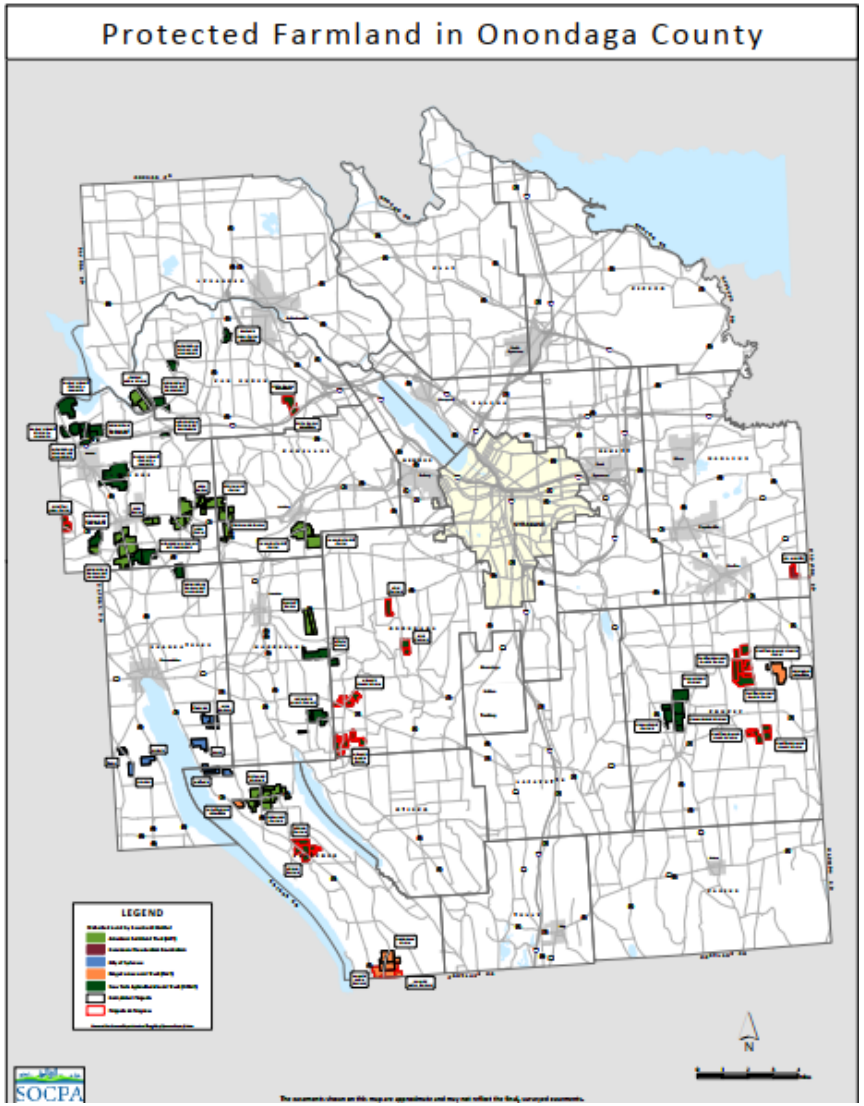
- Voluntary between a landowner and another party to permanently protect farmland
- Landowner surrenders their rights to develop the land, accepts restrictions that protect the agricultural land and other open space lands
- Provides cash compensation to landowner;
- Can be state, locally funded, or combination
- Not-for profit land trusts also active

Purchase of Development Rights (PDR)

Protected lands through PDR in Onondaga County

- Over 30 farms protected
- Over 13, 000 acres protected

For more information on PDR visit: http://www.ongov.net/planning/pdr.html



Questions?

Dan Kwasnowski, Director
danielkwasnowski@ongov.net

Megan Costa, Project Manager
megancosta@ongov.net

SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY

ONONDAGA COUNTY
AGRICULTURE AND FARMLAND PROTECTION PLAN

agriculture.ongov.net

Jane Rice, Principal
jrice@edrdpc.com

Erica Tauzer, Project Manager
etauzer@edrdpc.com

PLAN ONONDAGA
COUNTY COMPREHENSIVE PLAN

plan.ongov.net

George Frantz, Principal
geoplan57@gmail.com

George R. Frantz & Associates
Land Use & Environmental Planning
Ithaca, New York

Participate in the

Onondaga County Agriculture & Farmland Protection Plan

Working with Farmers, Local Governments, and the Public on a Vision for the Next Generation of Agriculture in Onondaga County

WAYS TO GET INVOLVED

Visit our website at **agriculture.ongov.net**

- Join our email list
- Find information on upcoming events
- Submit your ideas and comments
- Learn about agriculture in Onondaga County

FARMERS

Share your experiences. Tell us what's working and what's not. Help us envision the next generation of agriculture in Onondaga County.

LOCAL GOVERNMENTS

Tell us your perspective on agriculture and farmland. Participate in mapping priority lands in your community . Get tips on building farm-friendliness into your local regions.

THE PUBLIC

Learn more about the value of agriculture in Onondaga County and how you can help support local farmers and rural communities.

The Onondaga County Agriculture & Farmland Protection Plan is being overseen by the Onondaga County Legislature's Agriculture & Farmland Protection Board (AFFB) and managed by the Syracuse-Onondaga County Planning Agency (SOCPA), with funding and support from the NYS Department of Agriculture & Markets, the Onondaga County Agriculture Council, Cornell Cooperative Extension of Onondaga County and the Onondaga County Soil & Water Conservation District.