



Tompkins County Conservation Plan

2010

Part II: A Strategic Approach to
Agricultural Resource
Stewardship

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Introduction

Background

Tompkins County is composed of a mix of urban, suburban, and rural landscapes. Agricultural resources found in the rural areas are vulnerable to irreversible transition to suburban and urban uses. Tompkins County's agricultural lands form the historic backbone of the local rural economy and provide quality of life amenities, such as scenic viewsheds, rural character, and open space. Over the past 30 years, Tompkins County has lost at least 20 percent of its farmland to both development and abandonment.¹

The Tompkins County Conservation Plan examined the agricultural resources of the rural landscape and defined these resources as land with high-quality soils that are suitable for farming. Agricultural resources are finite and, therefore, it is important to have a plan for protecting and preserving these limited resources. Preserving agricultural resources will ensure that future farming is possible, maintain a local food supply, retain rural character and jobs, and protect other local natural resources such as air and water quality. Even the fragmentation of agricultural resources threatens their viability in terms of agricultural production, open space value, watershed protection, and a sense of a rural, farming community.

A historically agricultural county, Tompkins County currently has only enough active farmland to feed approximately a quarter of its households.² While the Tompkins County community relies on food that is produced from beyond its boundaries, local farms are vital to the local economy, food supply, and long-term sustainability. These critical agricultural resources require action to protect and enhance their viability for future agricultural production.

Farming in Tompkins County

The working agricultural lands of Tompkins County are fluid in nature. Farms are continually being bought and sold, consolidated and parceled off. Operations shift from dairy to cattle to crops, land is allowed to become fallow, and fallow land is pulled back into production. This constant reinvention of agricultural land helps local farming remain viable, and it keeps the best soils and agricultural land in agricultural production.

In Tompkins County, a farm is not always one large parcel of land. A farm is much more likely to be a blend of owned and rented lands, often non-contiguous, that include primary farmland, support lands, and farm structures for equipment and/or animals. To protect agricultural resources in Tompkins County, it will be necessary to protect all aspects of farms, including rented land, which will require a palette of tools.

Planning for Resource Protection

In 2004, the Tompkins County Legislature adopted the County's first Comprehensive Plan, which identified six Agricultural Resource Focus Areas (ARFAs)³ and fourteen Natural Features Focus Areas throughout the County in need of special consideration and protection. Part I of the Tompkins County Conservation Plan was developed in 2006 and provides an approach to address the priority conservation needs of the County's outstanding natural features (Natural Features Focus Areas). The Agricultural Resource Focus Area Plan is Part II of the Conservation Plan. It investigates the issues facing local agriculture and presents a coordinated, comprehensive approach to farmland protection by listing specific strategies to conserve critical agricultural land within the County's six designated ARFAs.

1 Tompkins County Comprehensive Plan, pg. 28 - <http://www.tompkins-co.org/planning/compplan/index.htm>.

2 To support the current, diverse American diet, approximately 1.2 acres of cropland and 2 acres of pastureland are required per capita. According to this estimate, Tompkins County's current, actively farmed 71,849 acres would feed only 22,452 individuals, or about 25% of the County's household population. Pimentel, David, et al. "Reducing Energy Inputs in the US Food System." Human Ecology (2008).

3 Agricultural Resource Focus Areas (ARFAs) are defined as areas within the County that have significant concentrations of high-quality agricultural soils and contiguous farming operations.

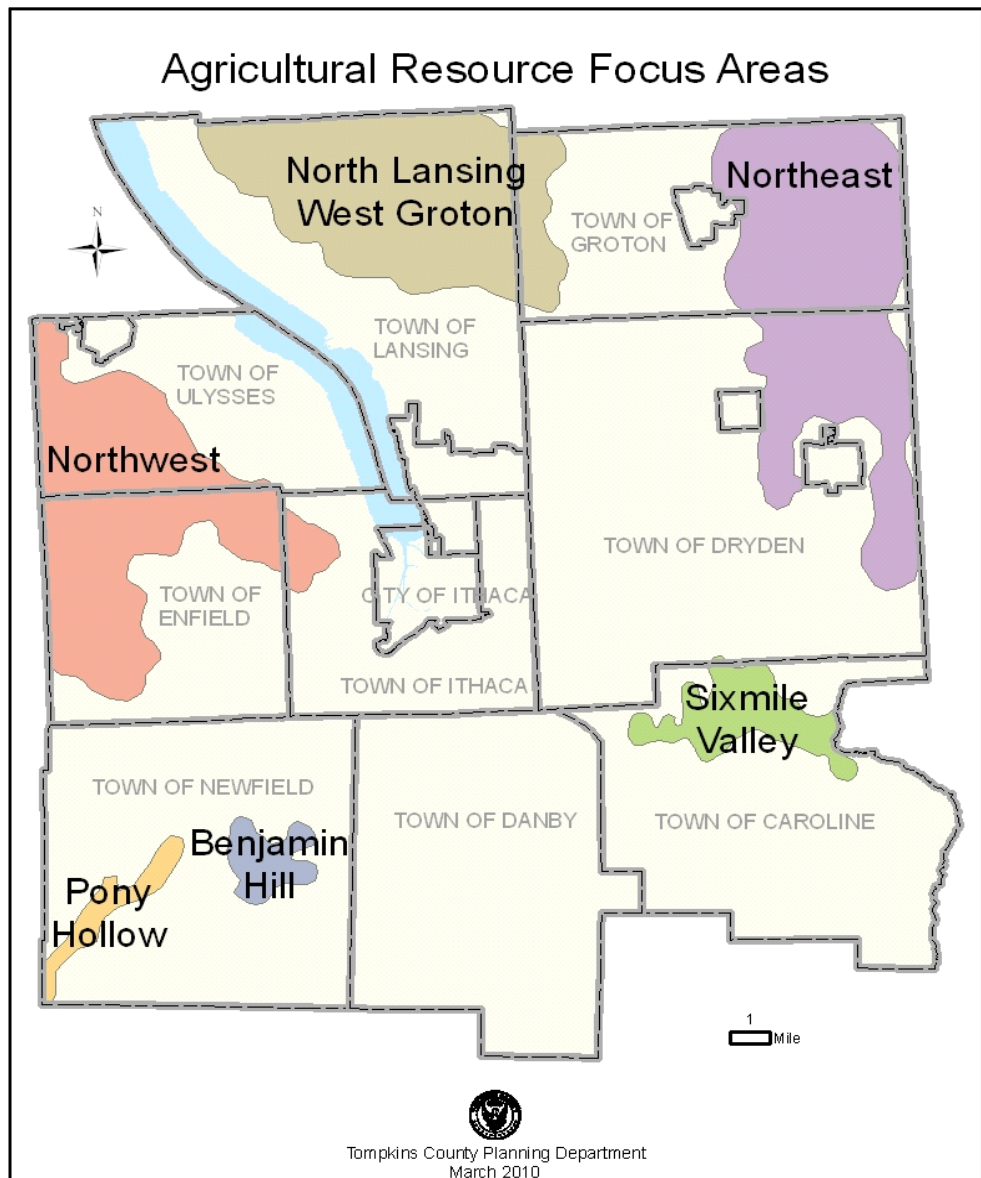
4 Part I of Conservation Plan available at <http://www.tompkins-co.org/planning/nri/nri.htm>

Agricultural Resource Focus Areas (ARFAs)

While working farms can be found throughout Tompkins County, six particular agricultural areas are recognized as being strategic for protection for land intensive agricultural uses. These Agricultural Resource Focus Areas (ARFAs) were identified in a 2002 Countywide study⁵ and are defined as areas with high concentrations of quality agricultural soils and contiguous, actively-farmed land. Nearly all of the land in the ARFAs is located within one of the County's two designated agricultural districts and receives agricultural assessment. The ARFAs extend into almost every municipality and include 63 percent of all farm operations in the County. The six ARFAs are:

- **Northeast** – The central and eastern parts of the Town of Groton fall within this ARFA, which also extends south into the Town of Dryden along the Cortland County line and bounds the Village of Dryden to the northeast and west.
- **North Lansing-West Groton** – This ARFA borders Cayuga County to the north and is composed of the northern half of the Town of Lansing and the westernmost portion of the Town of Groton.
- **Northwest** – Adjacent to Schuyler County, this ARFA stretches through the western portions of the Towns of Ulysses, Enfield, and Ithaca.
- **Pony Hollow and Benjamin Hill** – These two ARFAs are both in the Town of Newfield. The Pony Hollow ARFA flanks State Route 13 in the southwest corner of the County, ending at the convergence of Tompkins, Chemung, and Schuyler Counties. Benjamin Hill abuts the Hamlet of Newfield in the central highland area of the Town.
- **Sixmile Creek Valley** – This ARFA is located in the north central portion of the Town of Caroline along State Route 79, extending to the Tioga County line in the east.

It should be noted that only agricultural properties whose center lies inside the ARFA boundaries are included in this study. More than one third of the County's farms are located outside the six delineated ARFAs. Some municipalities have designated locally important agricultural areas that should be considered, together with the ARFAs, in municipal planning efforts to develop agricultural preservation strategies. The denoted ARFAs represent planning areas and are not regulatory designations.



⁵ Frantz & Associates et al. "Tompkins County Agricultural Lands & Natural Areas Preservation Feasibility Study" (2002).

ARFA Plan Process

After conducting preliminary mapping and research for each ARFA, the Tompkins County Planning Department conducted focus group meetings for the farm communities of each ARFA. Information from each of these meetings, along with land use and various agricultural data was analyzed for this plan. This planning process was enhanced by consultation with two primary partner agencies - Cornell Cooperative Extension of Tompkins County and the Tompkins County Soil and Water Conservation District. The draft plan findings were presented to the Tompkins County Agriculture and Farmland Protection Board and the Tompkins County Planning Advisory Board for input. A public meeting will be held to present the final draft document for added comment.

ARFA Plan Contents

The purpose of this plan is to identify the unique opportunities and critical issues facing each ARFA and to develop agricultural resource protection strategies for these areas.

The Agricultural Resource Focus Area Plan begins with an introduction to Tompkins County agriculture and the ARFAs and is accompanied by a summary of findings from the six ARFAs. The summary includes overall statistics from the six ARFAs as well as conclusions drawn about agriculture in these areas and the County.

This is followed by six ARFA profile summaries which each include a geographic analysis; local laws and infrastructure as they relate to farming; ARFA-specific farm statistics; agricultural trends; and farmers' first-hand accounts of the state of farming in the area. The geographic analysis presents the physical characteristics of each ARFA, including soils, topography, and natural features. The local influences section includes local Town government policies, laws, and regulations impacting agricultural protection as well as a review of water and sewer infrastructure in the area, in the context of potential development pressure on agricultural lands. The farming in ARFA portion of the profile includes land use and agricultural trends which track change that is occurring in active agriculture, farm ownership, and development pressure in each ARFA. Select farm summaries and notable highlights from farmer focus groups held in each ARFA reveal the issues facing local farmers, including concerns about land availability, support infrastructure, operating costs, innovative practices, cross-municipal and cross-county operations, and succession planning.

Each ARFA summary culminates in a *Critical Issues and Actions* section that clearly identifies the primary threats to farming, opportunity areas for growth and/or innovation, and long-term protection strategies for agricultural resources.

ARFA Summary

Snapshot of Agriculture in Tompkins County

Agriculture in Tompkins County is in a period of significant transition. Dairy has receded from its historic position of dominance among local farming operations and farmers in Tompkins County are more likely to be employed in part-time farming rather than full-time. A significant portion of land that was actively farmed 40 years ago is no longer in agricultural use and an increasing amount of farmland is leased. Other farming activities and practices such as organic farming, hobby/niche farming, and sustainable farming techniques are redefining farming in some areas.

Dairy

Dairy farming in Tompkins County utilizes more land than any other farm operation type. However, the number of total dairies has dropped substantially in the past 30 years, particularly in the three southern ARFAs (Sixmile Creek Valley, Benjamin Hill, and Pony Hollow). Likewise, dairy farming in the Northwest ARFA is rapidly

decreasing. Dairy farming remains strong in the Northeast and North Lansing-West Groton ARFAs - situated adjacent to Cayuga and Cortland Counties - regional dairy powerhouses. This cluster of large and mid-sized successful dairies seems to have solidified dairy's future in these two areas. In addition, organic dairying has made inroads in both of these ARFAs. Tompkins County's six active organic dairy operations are all located in these two ARFAs.

The overall decline of dairy has had direct repercussions on farming as a full-time occupation in Tompkins County. Today, almost all full-time farmers work lands associated with the remaining dairies. Part-time farmers typically raise crops or animals, work full-time off the farm, and/or are hobby farmers that are starting up enterprises on the side.

Loss of Agricultural Land

Though there has been substantial loss of active agricultural land across all ARFAs since 1969, the majority of

Agricultural Resource Focus Area (ARFA) Statistical Summary Table

	Northeast	North Lansing - West Groton	Northwest	Benjamin Hill	Pony Hollow	Sixmile Creek Valley	TOTAL
Total ARFA Acreage	25,234	21,680	21,522	2,155	1,930	4,774	77,295
# of Farm Operations	59	52	67	12	4	19	213
Total Farm Operation Acres (active+inactive agricultural land)	16,590	15,467	13,197	1,584	1,702	3,389	51,929
Average Farm Operation Size (acres)	281	297	197	132	426	178	<u>AVERAGE</u> 244
% Total of ARFA in Active Agriculture, 2007	52%	55%	49%	56%	44%	47%	<u>AVERAGE</u> 52%
% Loss of Agriculture Land (active + inactive), 1969-2007	24%	16%	23%	19%	9%	25%	<u>AVERAGE</u> 21%
% Owned; % Leased Farm Operation Acres	72% owned; 28% leased	66% owned; 34% leased	78% owned; 22% leased	56% owned; 44% leased	100% owned; 0% leased	55% owned; 45% leased	<u>AVERAGE</u> 71% owned; 29% leased
% Prime Soils; % Soils of Statewide Significance (SOSS)	9% Prime; 57% SOSS	43% Prime; 22% SOSS	35% Prime; 30% SOSS	1% Prime; 73% SOSS	37% Prime; 28% SOSS	21% Prime; 40% SOSS	<u>AVERAGE</u> 27% Prime; 38% SOSS
Estimated # Dairies	30	23	3	3	1	3	63

land removed from agriculture has been marginal in nature. This land has been allowed to return to brush or forest or, in some cases, developed for residential or commercial uses. Generally, this has not had much of a negative impact on agriculture, as the best lands have remained part of the agricultural base of the County. However, certain areas of the County, particularly the North Lansing-West Groton ARFA, the eastern edge of the Northwest ARFA, and the southern reaches of the Northeast ARFA closest to the Village of Dryden are under growing development pressure and are susceptible to loss of farmland and conflicting land uses. Farmland located on State highway frontage (State Routes 13, 79, and 96) has high visibility and access, making it inherently vulnerable to development pressure.

Leased Farmland

In the Tompkins County ARFAs, 29 percent of actively farmed land is leased. This mirrors national statistics reported by the USDA in 2006, which found one third of all farmland is leased.⁶ Though many older or retired farmers have close ties to the land and would like to see it continue in farming, there is a serious shortage among farming families of a successional farming generation. When there is no family member to continue operations, selling the land is often the only option, and the highest bidders are not necessarily farmers. On the other hand, farmland for lease is in demand by both existing farmers that are seeking to expand operations with supplemental support lands as well as by new farmers. Some local farmers are in a position to purchase additional farmlands; others simply cannot afford outright purchase. New farmers often cannot afford the start up costs of land, operations, and equipment and therefore must rent to break into farming. Others may wish to avoid the carrying costs of owning land including property taxes.

The increase in leased agricultural land is impacting both farmers and agricultural resources. First, farmers who lease land do not directly bear the burden of land taxes. This is generally perceived as a positive attribute of leasing. However, leased farmland is inherently less stable than owned farmland. Beyond the typically brief three to five year lease agreement (and in some cases unwritten handshake agreements) there is less certainty that a landholder or landholding family will keep leased land in agriculture. Unfortunately, there have been instances where prime farmland has been sold, without any notification to the leasing farmer, giving little opportunity to purchase land or even make basic operational provisions for the next season. In addition, farmers of leased land are less likely to invest in costly infrastructure improvements and conservation measures,

such as fencing, field tiling, and manure storage, that have long payback periods.

Finally, the growing proportion of leased farmland further spreads the checkerboard pattern of farm operations throughout the County. Farmers seek available land wherever they can find it, primarily in the vicinity of their current farm operations, but rarely contiguous to the working lands of a given farm operation. This spreading pattern has spawned greater interaction and conflict between the farming community and growing residential development, particularly in terms of traffic and farm practices.

Non-Conventional Farming

A growing number of farmers have transitioned to or are starting up non-conventional farming endeavors in the ARFAs of Tompkins County. Examples include organic crop farming of grains and vegetables in Benjamin Hill and Northwest; organic dairies in North Lansing-West Groton and Northeast; horse farming in Benjamin Hill, Sixmile Creek Valley, and Northwest; no-till farming techniques in Pony Hollow and Benjamin Hill; and green roof materials and viticulture (grape cultivation) in the Northwest. Farmers in several ARFAs are considering incorporating alternative energy crops into their crop rotations. A group in the Towns of Danby and Caroline (outside the ARFA areas) have developed an owner cooperative to begin pooling resources to create a biomass market and evaluate the potential of building a biomass pelletizer in Tompkins County.

Opportunities for Growth

Three opportunities areas for enhancing agricultural viability in Tompkins County have been identified during this planning process: organic farming, renewable energy, and value-added product diversification. These themes should be further investigated in the update to the Tompkins County Farmland Protection Plan, which will be completed by Cornell Cooperative Extension of Tompkins County and the Tompkins County Agriculture and Farmland Protection Board.

- **Organic farming** is thriving in Tompkins County. Six local dairies have converted to organic practices; all of these dairies are located in the North Lansing-West Groton and Northeast ARFAs. Additionally, organic fruits, vegetables, and grain operations have started or converted from conventional farming methods in response to strong local demand for organic products and farmers' interest in higher prices yielded by organically-certified products.

⁶ USDA Agricultural Resources and Environmental Indicators, 2006 Edition. Keith Wiebe and Noel Gollehon, Editors Economic Information Bulletin No. (EIB-16), July 2006.

These products are reaching County residents via Community Supported Agriculture (CSAs), U-Pick enterprises, local farmers markets and grocers.

Lands that have been fallow are being pulled back into organic production, as they can be more quickly certified organic than active, chemically-fertilized farmlands.

- **Renewable energy** crops and facilities may also provide local farming with opportunities for income enhancement. As an example, biomass, including hay, grass crops, or woody plant material produced on farmland can provide a new cash crop for farmers, particularly on lands that are less than suitable for edible crops or feed stock. Biomass could supply a potentially significant local demand for home heating.

Farmers may also host facilities for community power generation, particularly wind and solar development. Farm sites may be the most appropriate locations for commercial wind, as there is sufficient land mass on many farms to accommodate structures alongside active farming operations while still providing ample buffer to mitigate impact on neighboring land uses.

- **Value-added products** are a means to increase farm profits and diversify outputs, which may help to retain farmers in farming and keep land in agriculture. Farmers in the ARFAs expressed interest in pursuing value-added dairy, fruit, and grain products; however, there is need for assistance in navigating the regulatory framework.

Countywide Actions

Several actions have been identified as being critical to retaining agricultural viability or promoting protection in the ARFAs, including the following:

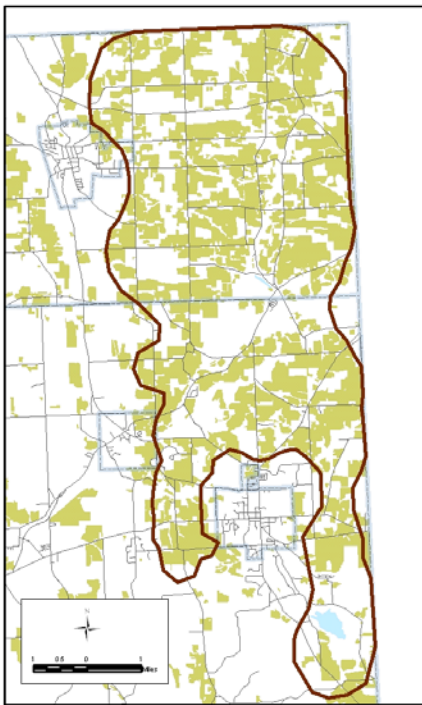
- Develop a list of farms well-suited for, and interested in, **PDR** across ARFAs.
- **Encourage appropriate municipal regulation tools that support agriculture**, including comprehensive plans and zoning controls that designate specific agricultural areas, regulate density in these areas, and prohibit non-agricultural uses from spreading into agricultural areas.
- Coordinate **cross-County agricultural planning** with Cayuga, Cortland, Schuyler, and Seneca Counties.
- Support a more coordinated farm-leasing program through the development of a **formal repository of available farmland**, both active and inactive.
- **Enhance vegetative buffering on farms.** This includes developing appropriate stream buffers on agricultural properties and maintaining or establishing wooded buffers between agricultural and non-agricultural uses.
- **Identify highway corridors with heavy farm equipment usage that also carry high traffic volumes** to determine methods for alleviating vehicular conflicts on these particular roadways.
- Promote **alternative models to family succession**, including multi-family enterprises as well as partnerships.
- Identify **design guidelines** for development in agricultural areas that are not subject to land use regulations. Provide a development model to allow for subdivision that is most conducive to continuing active agriculture.
- Identify and distribute a **model hunting lease** to agricultural property owners and operators.
- Structure the **County foreclosure process** to allow for farmland protection.
- Provide **land planning services** for transitioning farm operations.

Northeast ARFA Profile

Background

The Northeast Agricultural Resource Focus Area (ARFA) is composed of 25,234 total acres – the largest of the six ARFAs – and stretches from Cayuga County at the north end to Cortland County to the east, and south through the Towns of Groton and Dryden, encircling the Village of Dryden. Farming in this ARFA is closely connected to farming in Cayuga and Cortland Counties, with several farms straddling County lines.

Northeast ARFA Active Agricultural Land Map



This ARFA hosts more dairy operations than any of the other ARFAs, with close to thirty working dairies that are sited on nearly 6,000 acres. Most of these dairies are concentrated in the northern section of the ARFA, in the Town of Groton near the junction of Cortland and Cayuga counties. Many of the largest Tompkins County dairy operations are in this area – approximately half of the County’s Concentrated Animal Feeding Operations (CAFOs)⁷ are in the Northeast ARFA.

⁷ A farm is considered a CAFO if it confines a specific number of animals at least 45 days a year. For dairies, a farm with more than 700 mature dairy cows is considered a large CAFO whereas a farm with 200 mature dairy cows is considered a medium CAFO. Various regulations apply depending on the size of a CAFO. The vast majority of New York dairies are considered medium-sized CAFOs.

Geography

Topography and Soils

The Fall Creek valley that cuts through the ARFA from north to south contains rich soils and flat plains that are ideal for cultivation. Steep slopes on the east side of Fall Creek rise up to wide hilltops with excellent farmland for crops and pasture. Prime soils, which make up 9 percent (2,343 acres) of the Northeast ARFA, are concentrated along Fall Creek on the



View across Lew-Lin Farm in Northeast

east side of the Town of Groton and just northeast of the Village of Freeville in Dryden. Soils of Statewide Significance account for another 57 percent (14,265 acres) of the ARFA and are more equally distributed geographically.

The Northeast ARFA hosts close to thirty working dairies that are sited on nearly 6,000 acres.

Natural Features

Fall Creek is the primary natural feature of this focus area. The entire Northeast ARFA is in the Fall Creek Watershed, with the exception of a small area along the northwest edge which feeds into the Owasco Inlet. Fall Creek is an important water resource to farms in the ARFA. After passing through the ARFA, Fall Creek is utilized as the main water supply for Cornell University, and it then continues on to drain into Cayuga Lake.

This ARFA contains two noteworthy views that are recognized in the Tompkins County Scenic Resources Inventory.⁸ The first can be seen from West Lake Road, with Dryden Lake in the foreground and cultivated fields as a backdrop (Noteworthy View 14). The second view can be seen from State Route 13, near Gulf Hill Road in the Town of Dryden, featuring a panorama of farm operations and fields set against distant hillsides and shallow valleys (Noteworthy View 15). These well-noted agrarian views substantiate the claim that farming provides more than just an economic engine to the region.

More than nine percent (2,300 acres) of the ARFA is composed of Tompkins County Unique Natural Areas (UNAs).⁹ Many of the UNAs are situated along Fall Creek or one of its tributaries and are adjacent to active farmland. The largest of these UNAs is Dryden Lake (UNA-114), which is 410 acres and is located near the ARFA’s southern tip. This UNA “is an important birding area and also important for the study of aquatic insects such a caddisflies.” Nearly six percent (1,427 acres) of the land within this ARFA is protected from development. Protected land in this ARFA consists of one large nature preserve, several parcels with conservation easements, and a Cornell restricted natural area.

Local Influences

Local Laws

The Northeast ARFA includes the eastern half of the Town of Groton and the northern half of the Town of Dryden.

The Town of Dryden and Tompkins County are currently pursuing agricultural protection for two farms in the ARFA – the Jerry Dell and Lew-Lin Farms – through funding from the New York’s purchase of development rights (PDR) program.¹⁰

Water and Sewer Infrastructure

Water and sewer infrastructure in this ARFA is concentrated within the Villages of Groton and Dryden, chiefly outside the boundaries of the ARFA. There are limited water lines extending east from the Village of Groton into the ARFA, and a sewer service area reaches north from the Village of Dryden into the ARFA, though their impacts on agricultural lands appear to be minimal.

8 Tompkins County Scenic Resources Inventory (2007) - http://www.tompkins-co.org/planning/nri/Scenic_Resources.htm

9 Unique Natural Areas Inventory (UNA), http://www.tompkins-co.org/emc/educational_materials.htm, Tompkins County Planning Department, 2007.

10 More information on PDR programs is available at <http://www.tompkins-co.org/planning/Rural%20Resources/PDR.htm>

Northeast ARFA Municipal Planning Table

Municipality	Dryden	Groton
Comprehensive Plan (Year)	Yes (2005)	Yes (2005)
Comprehensive Plan Agriculture Element	Yes	Yes
Right to Farm Law	Yes	Yes
Zoning	Yes	Yes
Agricultural Zoning District	No*	Yes
Cluster Zoning	No	No
Agricultural Areas Identified for Protection	No	No
Active with NYS PDR	Yes	No
Town based PDR	No	No

*Proposed zoning includes Rural Agriculture zone.

Farming in the Northeast ARFA

Northeast ARFA Farm Statistics Table

Total ARFA Acreage	25,234
# of Farm Operations*	59
Total Farm Operation Acres (active+inactive agricultural land)	16,590
Average Farm Operation Size (acres)**	281
% Total of ARFA in Active Agriculture, 2007	52%
% Loss of Agriculture Land (active + inactive), 1969-2007	24%
% Owned; % Leased Farm Operation Acres***	72% owned; 28% leased
% Prime Soils; % Soils of Statewide Significance (SOSS)	9% Prime; 57% SOSS
Estimated # Dairies	30

*See Northeast ARFA Map 1 - Farm Operations (2007)

**See Northeast ARFA Map 2 - Farm Operation Size (2007)

***See Northeast ARFA Map 3 - Owned-Leased Farmland (2007)

Land Use Trends

From 1969-2007 the Northeast ARFA lost approximately 4,600 acres of agricultural land. This represents the largest loss of agricultural acreage of any of the ARFAs. Much of this loss occurred in the southern portion of the ARFA, where agricultural soils are less productive and where development pressure from the Village of Dryden has pushed outward.

Development Pressure

Development activity in the ARFA has been increasing, particularly in the Town of Dryden, the Village of Dryden, and along the New York State Route 13 corridor. Several farms in the ARFA are located along the State Route 13 corridor, and increasing development may be anticipated to conflict with agricultural operations. Should residential development gain inroads into the ARFA, use conflicts would be anticipated due to the nature of the large dairy operations in this area.

Farm Community Voices

Groton dairy farmers made up the majority of attendees at the Northeast ARFA focus group meeting. According to these farmers, most of the dairies in the ARFA are owner operated and farms are generally composed of contiguous parcels. Local farmers note that larger dairies (from both inside and outside Tompkins County) are always seeking more land for support crops and manure spreading, and finding available land in and around the ARFA is becoming difficult. Also, housing development pressure is perceived in areas of the ARFA closest to the Village of Dryden and along the State Route 13 corridor.

The Northeast ARFA has high-profile farms, which help to define the rural character of the area. There is strong sentiment among farmers that farming needs to stay in this community. Even with generally supportive town governments, farmers are concerned that zoning, particularly in the Town of Groton, is not amenable to farming. As it is currently written, Groton zoning encourages smaller lots, which fragment the agricultural land base and make it difficult for farming operations.

Some smaller, niche farms that are moving into the ARFA are seen as fitting well in the farming community, serving as a buffer between larger dairies and residential development. These newer farms include organic operations and vegetable crops, which tend to attract younger farmers. Young farmers are an important group to draw into this area where there are few young farmers. In the Northeast ARFA, which is dominated by large dairy operations, it is all but impossible to break into farming as

Farm Profile—Beck Farms



Beck Farms is a third generation dairy operation, established in 1921. The farm was started by Martin Beck, with just 20 cows. Today, Beck Farms milks 1,200 cows daily and is Tompkins County's largest dairy. The farm is located just outside the Village of Freeville in the Town of Dryden. As a large farm, Beck Farms currently supports a number of families through its operation.

a new and/or young farmer due to the high costs of land, equipment, and operations.

Farms in Cayuga County have a significant impact on the Northeast ARFA. There is concern that negative press associated with large Cayuga County CAFOs may have repercussions on the local dairy industry.

On a more positive note, recently a small group of Amish farmers established operations just north of the ARFA in Cayuga County. These farmers are seen as significant buyers of farm supplies from the Northeast ARFA, helping local agricultural operations.

To augment profit margins, some dairy operators are investigating value-added products, including cheese and compost, and the processes required to market them. For milk products, the perception is that tight regulation renders these enterprises to be very expensive and time consuming, though interest still remains.

Critical Issues

Two critical issues were identified in the Northeast ARFA:

- **Farmland Protection** – This ARFA offers the opportunity to protect large, contiguous blocks of owner-operated farmland. There is one farm of approximately 565 acres in the center of the ARFA that transitioned from owner operated to rented land in 2008. Keeping this property in agricultural production should be considered a priority.
- **Development Pressure** – This ARFA is home to State Route 13, Tompkins County’s primary transportation corridor, as well as the Village of Dryden and the Hamlet of McLean. In addition, available land for agriculture or development is in limited supply due to high farm ownership rates. Steady development within the Town of Dryden and pushing west from Cortland County may increase pressure on agricultural land and increase residential–agricultural land use conflicts.

Proposed Actions

Identified protection strategies for preserving the agricultural viability of this ARFA are:

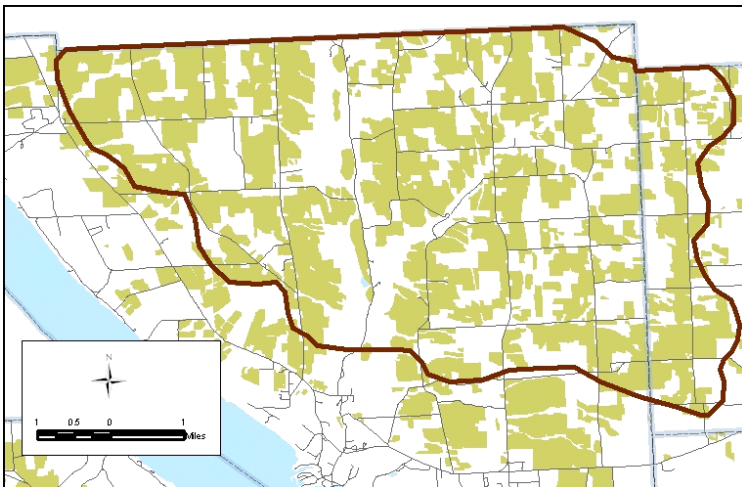
- Develop an approach to protect identified agricultural resources, particularly for the farm in central Groton.
- Identify small, available farm parcels that may be appropriate for niche farms (to encourage diversity among farming operations in the area).
- Identify farms that are under intense development pressure based on their proximity to either the Route 13 corridor, Villages of Groton or Dryden, and/or water/sewer infrastructure, and develop outreach strategies to mitigate pressure.
- Coordinate agricultural planning activities across Tompkins-Cayuga-Cortland County lines.

North Lansing – West Groton ARFA Profile

Background

The North Lansing – West Groton Agricultural Resource Focus Area (ARFA) encompasses 21,680 acres of land located in the northern half of the Town of Lansing and the western edge of the Town of Groton. This area is the second largest of the focus areas. Its northern boundary is the Cayuga County line while to the south and west Route 34B (Peruville and Ridge Roads) rims the area. This ARFA is characterized by large sloping fields that gently roll toward the two primary natural features of the area – Salmon and Locke Creeks.

North Lansing– West Groton ARFA Active Agricultural Land Map



These creeks form a “V” in the central portion of the farming area, essentially dividing the ARFA into three parts. A manmade feature that is also prominent in the North Lansing – West Groton ARFA landscape is a NYSEG utility corridor, built in the 1950s, which parallels the western and southern borders of the ARFA. This corridor crosses several farm properties and, for the most part, is actively farmed.

Unlike the other five Tompkins County ARFAs, the North Lansing – West Groton ARFA has experienced a slight increase in the amount of actively-farmed land since 1995. Although small, this 20-acre increase in active agriculture speaks to the ARFA’s agricultural viability, largely associated with its outstanding soils. A gain in active agricultural land in this portion of the County is especially significant, as agriculture must contend with a high level of development pressure.

This ARFA is most well-known for its prominent dairies, which include vast swaths of field crops for feed. Excluding the Pony Hollow ARFA, which has only two active farms, the North Lansing– West Groton ARFA has the largest average farm size, at 297 acres.

Organic dairy operations are a recent, growing influence in this ARFA. The North Lansing – West Groton ARFA hosts four of the County’s six organic dairies, and represents nearly 70 percent of the acreage that organic dairies work in the County.

Notable agricultural protection is occurring in the North Lansing – West Groton ARFA. The Howser Farm received a grant from the New York State Purchase of Development Rights (PDR) program to protect the farm from development in perpetuity. Benvue Farms, also in this ARFA, is in the final stages of this state program as well. These two farms together will represent nearly 1,500 acres of protected farmland in the ARFA.

Geography

Topography and Soils

The North Lansing – West Groton ARFA is sited on uplands located on the east side of Cayuga Lake. The narrow Salmon and Locke Creek valleys in the central portion of the ARFA are bordered by steep slopes as well as rich soil deposits. This ARFA has the highest percentage of Prime soils of all the ARFAs, at 43 percent (9,357 acres). In addition, 22 percent (4,680 acres) of the ARFA has Soils of Statewide Significance.



Looking across Salmon Creek Valley toward Hardie Farms in North Lansing-West Groton ARFA

Natural Features

The eastern side of the North Lansing-West Groton ARFA features a number of farms that have unparalleled views of working landscapes framed by Cayuga Lake beyond.

The majority of the ARFA is within the Salmon Creek Watershed, which drains to Cayuga Lake. The largest Unique Natural Area (UNA) in this region is the Locke Creek Gulf (UNA-20) covering 271 acres located between Conlon and Salmon Creek Roads.

Local Influences

Local Laws

The majority of the North Lansing-West Groton ARFA lies within the Town of Lansing, and a small section extends into the western side of the Town of Groton. The following table outlines the status of local Towns of Groton and Lansing laws that impact agriculture in the ARFA.

**North Lansing-West Groton ARFA
Municipal Planning Table**

Municipality	Groton	Lansing
Comprehensive Plan (Year)	Yes (2005)	Yes (2006)
Comprehensive Plan Agriculture Element	Yes	Yes
Right to Farm Law	Yes	Yes
Zoning	Yes	Yes
Agricultural Zoning District	Yes	Yes
Cluster Zoning	No	No
Agricultural Areas Identified for Protection	No	No*
Active with NYS PDR	No	Yes
Town based PDR	No	No

*Currently developing municipal agricultural plan which will likely identify areas for protection.

The Town of Lansing has recently participated in one agricultural protection effort, assisting in the Bensvue Farms purchase of development rights process. Also, agricultural issues are being discussed as a part of the Town of Lansing's Agriculture Plan that is being developed with funding assistance from the New York State Department of Agriculture and Markets.

Water and Sewer Infrastructure

There is a very small area of water infrastructure at the intersection of Locke and Auburn Roads, near the northern boundary of the ARFA. This was constructed to provide water to a limited number of rural residences and utilizes a local well, and therefore, does not appear to threaten local agriculture. However, public water infrastructure runs just outside the southern and western borders of the ARFA. This exposes edge farms of the North Lansing-West Groton ARFA to increased development pressure. While there is currently no sewer infrastructure in or near the ARFA, various proposals for developing sewer infrastructure have been considered in the Town of Lansing.

Farming in the North Lansing – West Groton ARFA

**North Lansing-West Groton ARFA
Farm Statistics Table**

Total ARFA Acreage	21,680
# of Farm Operations*	52
Total Farm Operation Acres (active+inactive agricultural land)	15,467
Average Farm Operation Size (acres)**	297
% Total of ARFA in Active Agriculture, 2007	55%
% Loss of Agriculture Land (active + inactive), 1969-2007	16%
% Owned; % Leased Farm Operation Acres***	66% owned; 34% leased
% Prime Soils; % Soils of Statewide Significance (SOSS)	43% Prime; 22% SOSS
Estimated # Dairies	23

*See North Lansing –West Groton ARFA Map 1 - Farm Operations (2007)

**See North Lansing –West Groton ARFA Map 2 - Farm Operation Size (2007)

***See North Lansing –West Groton ARFA Map 3 - Owned-Leased Farmland (2007)

Land Use Trends

From 1969-2007 the North Lansing-West Groton ARFA lost 2,381 acres of agricultural land. Between 1995 and 2007, there has actually been a 20-acre increase in land in the area considered to be actively farmed. Even this minimal expansion marks an important gain for agriculture in the ARFA, as it faces steep competition from residential development which jumped by 217 acres from 1995-2007.

The North Lansing-West Groton ARFA has experienced a 20-acre increase in the amount of actively-farmed land since 1995.

Development Pressure

Development continues in and around the North Lansing – West Groton ARFA. Development activity has increased near the southern boundary of the ARFA, in particular along Searles and Buck Roads. In addition, many larger developments are either proposed or have been built in the vicinity of South Lansing. A growing concern in the ARFA is the sale of individual residential lots subdivided from large farm parcels, particularly parcels with road frontage. While these subdivisions provide much-needed income to farm enterprises they may promote a development pattern that limits accessibility by farm equipment to agricultural lands, increases the likelihood of residential neighbor-farm use conflicts, and increased traffic on local roads.

Farm Community Voices

A diverse group of the North Lansing-West Groton farm community attended the ARFA focus group meeting that included farm owners and renters, a large-scale dairy operator, a small organic dairy operator, and crop farmers.

According to farmers, there is concern about development pressure in the area, which is more pronounced than in other agricultural areas in the County. Substantial traffic increases on rural roads are a noted result of this development. The ability to move farm equipment safely is a very real concern amid this traffic, especially on roads that connect directly to State Route 34B, including Van Ostrand Road and Cobb Street. Additionally, Conlon Road poses a safety concern to farmers trying to cross with farm equipment.

Farmers feel that there is a healthy rental market for agricultural land and that land is in high demand in the North Lansing-West Groton ARFA. This higher demand (at steeper prices) than in any other ARFA, is likely due to the mid-sized dairies and crop farms based in the area as well as extremely large farms in Cayuga County. Several of the crop farmers in this ARFA supply these large dairies that lie across the County line.

There is also an expanding presence of mid-sized organic dairies in the area. Local organic and conventional dairies co-exist well and both are optimistic about the future of dairy in this ARFA.

Farm Profile—Bensvue Farms



Bensvue Farms is a second-generation, 600-cow dairy farm situated on 989 acres, which has recently transitioned to organic production. Chuck and Andra Benson have managed this farm for 38 of the farm’s 63 years. Sons Chandler and Thane Benson are presently working on the farm as well. Bensvue Farms borders important habitat, including the 33-acre Salmon Creek Bird Sanctuary. This farm is currently involved in the New York State Purchase of Development Rights Program that will assist in protecting it from future development.

Land use changes in the Town of Lansing, including the development of a town center, are being closely monitored by farmers. There is a desire among farmers to see the Town plan proactively for the future of agriculture. Municipal planning for the ARFA’s significant agricultural resources is seen as critical to maintaining a strong agricultural presence in the Town of Lansing.

There is considerable interest in renewable energy among farmers, such as biomass stoves or small-scale wind operations that might offer farms the ability to offset onsite energy demands. One local farmer is developing his own retrofitted pelletizer that will utilize various forms of biomass. Regarding traditional energy sources, farmers who own land are interested in developing a landowner coalition should oil and gas leases be re-signed in this region in light of the Marcellus Shale drilling interest.

Critical Issues

Four critical issues were identified for the North Lansing – West Groton ARFA:

- **Water Resources** – A number of concerns exist in this ARFA pertaining to water, including protecting the water quality of Salmon and Locke Creeks, maintaining adequate water supply in some areas, and increasing development pressure resulting from nearby water infrastructure.
- **Development Pressure** – There is significant development pressure in this ARFA and farmers are sharply divided about the future use of agricultural lands for development.
- **Vehicular Conflicts** – Conflicts between agricultural equipment and other vehicles is causing growing concern in this ARFA.
- **Organic Dairies** – This ARFA is the hub for organic dairying in Tompkins County and may offer opportunities or insight for conventional dairy conversion or for organic dairy start-ups. Organic dairy cows require considerably more in forage feed than conventional dairy cows. It is anticipated that access to support lands that can be certified organic will be a priority for organic dairies.

Proposed Actions

Identified protection strategies for preserving the agricultural viability of this ARFA are:

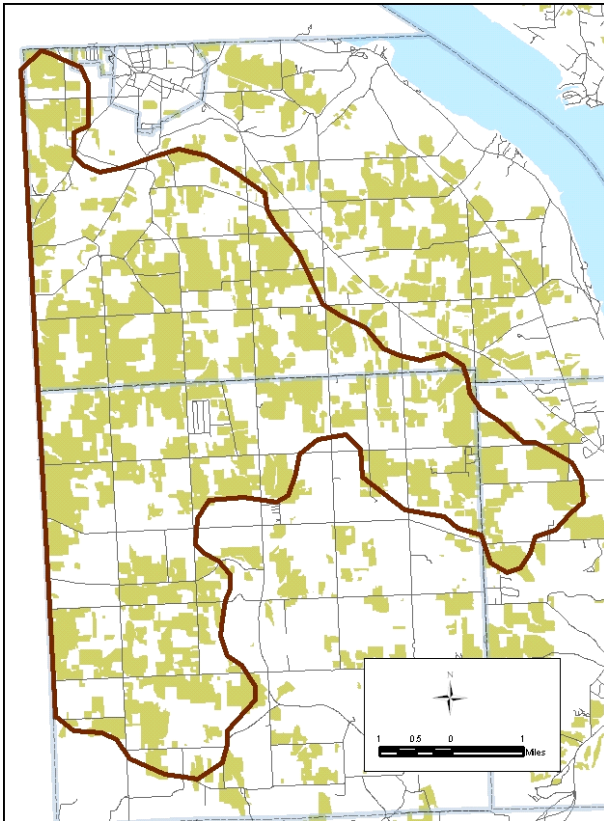
- Enhance stream buffers on farms along Locke and Salmon Creeks, in order to mitigate adverse water quality impacts.
- Implement land use codes and policies that encourage concentrated development in South Lansing, in exchange for reduced development within the ARFA.
- Implement measures to address traffic conflicts between agricultural equipment and vehicles along secondary roads, including the review of speeds and traffic volumes.
- Identify available land in and around the ARFA with the potential for use as support lands for dairies, both conventional and organic.
- Explore the potential for cooperation among farmers to consider renewable energy sources and natural gas lease coordination.
- Coordinate agricultural planning activities across Town and County lines.

Northwest ARFA Profile

Background

The Northwest Agricultural Resource Focus Area (ARFA) consists of 21,522 acres of land stretching eastward from the Tompkins–Schuyler County line through the Towns of Enfield and Ulysses and into the western edge of the Town of Ithaca. This ARFA is the third largest of the focus areas studied.

**Northwest ARFA
Active Agricultural Land Map**



Farming in the Northwest ARFA plays a defining role in the rural economy of West Hill. One of the typical indicators of the viability of agriculture, actively-farmed land, has only decreased by two percent since 1995. Also, lands that were out of production for more than a decade are being pulled back into working operations.

Today, a variety of farm operations exist in the Northwest ARFA, including crops, hay, and livestock, making it the most diverse of the ARFAs. Only three dairies remain in the ARFA, down from about 20 in the 1980s. Two particularly unique farming operations that are located in the ARFA are Genex (bull breeding units) and Motherplants (green roof material).

Geography

Topography and Soils

The Northwest ARFA is perched on uplands found on the western side of the County. This ARFA contains several stream valleys with moderate to steep slopes. The sloped areas lack level floodplains that might accommodate farming operations. Therefore, most of the larger farms are located on the higher and flatter areas at 1,100-1,300 foot elevations, generally in the northern half of the focus area where Prime soils are concentrated. This ARFA has 35 percent Prime soils and another 30 percent Soils of Statewide Significance that together total 13,884 acres of high-quality soils.

Natural Features

The Northwest ARFA boasts well-noted agrarian views, which help define the rural character of western Tompkins County. One example, is an outstanding view at Waterburg Road near Iradell Road at the Town of Enfield–Town of Ulysses municipal line – a panorama of farm fields stretched across rolling hills.



Hay bales looking north from Hayts Road

The northern section of the ARFA holds the headwaters of Jenny, Enfield, Bolter, and Taughannock Creeks. The majority of the ARFA falls within the Taughannock Creek Watershed, though small sections are also in the West Cayuga Lakeshore, Cayuga Inlet, and Cayuta Creek Watersheds.

Local Influences

Local Laws

The Northwest ARFA extends across three Tompkins County municipalities – the Towns of Enfield, Ithaca and Ulysses. Each of these Towns has significantly different land use regulations in place that affect agricultural resources. The table below summarizes existing municipal planning regulations.

Northwest ARFA Municipal Planning Table

Municipality	Enfield	Ithaca	Ulysses
Comprehensive Plan (Year)	Yes (2003)	Yes (1993)*	Yes (2009)
Comprehensive Plan Agriculture Element	Yes	Yes	Yes
Right to Farm Law	Yes	Yes	Yes
Zoning	No	Yes	Yes
Agricultural Zoning District	No	Yes	Yes
Cluster Zoning	No	Yes	No
Agricultural Areas Identified for Protection	No	Yes	No**
Active with NYS PDR	No	Yes	No
Town based PDR	No	Yes	No

*Comprehensive plan currently being updated.

**Currently developing municipal agricultural plan, which will likely identify areas for protection.

The Town of Enfield has a long history of farming but lacks formal methods of farmland protection. By contrast, the Town of Ithaca has extensive zoning regulations, including agricultural zoning that is protective of farming areas. The Town of Ulysses recently adopted a Comprehensive Plan update that designates much of the Town of Ulysses for agricultural and conservation zoning. It is anticipated that the Town of Ulysses will be modifying its zoning code in the near future to reflect these updates as well as the results of its local Farmland Protection planning effort.

The Town of Ithaca’s municipal regulations pay particular attention to agriculture. The Town has identified specific areas that are priorities for agricultural protection, one of which is on the western side of the Town within the Northwest ARFA. Also worth noting, the Town of Ithaca has developed and funded its own Agricultural Land Preservation Program “to preserve the Town’s farmland resources for future generations by purchasing the development rights to the land.” In 2003, the Town of Ithaca obtained its first agricultural conservation

easement on a 40-acre parcel of active farmland on Sheffield Road, which is currently operated as the Laughing Goat Fiber Farm. The property contains approximately 30 acres of active farmland and 10 acres of mixed forest and shrub growth. In 2009, the Town of Ithaca received notice from New York State’s Farmland Protection Program that it will receive funding to help purchase the development rights for the 42-acre Indian Creek Farm, which fronts the Route 96 corridor. The Town of Ithaca has additionally received funding to develop a farmland protection plan that should help to refine its farmland protection strategy.

Water and Sewer Infrastructure

The entire Town of Ithaca section of the Northwest ARFA is served by one water district. Water infrastructure extends north along Route 96 from the City of Ithaca, through the Towns of Ithaca and Ulysses, and culminates in the Hamlet of Jacksonville, providing service to properties within the ARFA as far north as Cold Springs and Swamp College Roads. The presence of water lines along the eastern edge of the ARFA makes agricultural lands along this stretch particularly susceptible to development. The vast majority of development on West Hill over the last 40 years has been along the Route 96 Corridor, which lies just to the east of the ARFA. Sewer infrastructure is contained in the heavily developed areas south and east of the ARFA, near Cayuga Medical Center and the City of Ithaca.

Farming in the Northwest ARFA

Northwest ARFA Farm Statistics Table

Total ARFA Acreage	21,522
# of Farm Operations*	67
Total Farm Operation Acres (active+inactive agricultural land)	13,197
Average Farm Operation Size (acres)**	197
% Total of ARFA in Active Agriculture, 2007	49%
% Loss of Agriculture Land (active + inactive), 1969-2007	23%
% Owned; % Leased Farm Operation Acres***	78% owned; 22% leased
% Prime Soils; % Soils of Statewide Significance (SOSS)	35% Prime; 30% SOSS
Estimated # Dairies	3

*See North Lansing –West Groton ARFA Map 1 - Farm Operations (2007)

**See North Lansing –West Groton ARFA Map 2 - Farm Operation Size (2007)

***See North Lansing –West Groton ARFA Map 3 - Owned-Leased Farmland (2007)

Land Use Trends

From 1969-2007, the Northwest ARFA lost approximately 3,700 acres of agricultural land. Though residential development in the ARFA increased by almost 18 percent since 1995. Three percent (630 acres) of land in the ARFA has been pulled from inactive agriculture back into active production between 1995 and 2007; in some part this has been for organic use.

Development Pressure

Only 22 percent of farmland is leased in the Northwest ARFA, representing the lowest rate of rental activity of any of the ARFAs.

Development activity in the vicinity of the Northwest ARFA has chiefly occurred along the Route 96 corridor on the eastern side of the ARFA near the Cayuga Medical Center and in the Village of Trumansburg. In the center of the Northwest ARFA, a few pockets of small scale residential development exist at major crossroads. Meanwhile, the westernmost portion of the ARFA, which abuts Schuyler County, is experiencing little development pressure.

Farm Community Voices

The Northwest ARFA meeting was attended by both dairy and crop farmers, including both owners and renters. According to these individuals, livestock, crops, hay and dairies, which represent the majority of farm operations in the Northwest ARFA, have fairly strong markets regionally. Also, organic farming is beginning to make inroads in the area in vegetable and grain production and is, in many cases, utilizing marginal or previously fallow agricultural land. This ARFA has experienced the greatest return of inactive land to active agriculture in the last decade. One reason for this, as noted by an organic operator, is that it is often easier to receive organic certification for fallow lands than for conventionally-farmed land.

Farmers project an uncertain future for farming in the Northwest ARFA due to appreciating land values and declining family succession farming. Additionally, it is believed that the few remaining dairies in the Northwest ARFA will be gone in the next 20 years. One bright spot is that cross-county ties to Schuyler and Seneca Counties are strong, both in terms of working lands and accessing support businesses. These relationships may help

increase the viability of the ARFA, as each of these counties has a strong agricultural base.

Three natural system management concerns are prevalent in the ARFA – water resources, forest management, and nuisance animal control. Farmers note problems on

Farm Profile—Indian Creek Farm



Overlooking the City of Ithaca, Indian Creek Farm is a U-Pick orchard that is five minutes from downtown Ithaca. Its prominent location on 42 acres of land with frontage on State Route 96 above Cayuga Lake, features seasonal picking of fruits and vegetables along with a cider press. Also, the farm grows 30,000 fruit trees that are grafted and raised on site and then shipped across the United States. Based on the farm's high quality soils, almost 2,000 feet of creek frontage, and the area's high development pressure, the Town of Ithaca was awarded a State farmland protection grant in 2009 to purchase the farm's development rights in perpetuity.

land with either streams or ravines that are perceived to be eroding agricultural land. There is also concern about road ditches and aging field tiles that together leave fields inundated with water. Better forest management is needed in this ARFA, as over-logging is occurring.

This may be exacerbated if the economy becomes more difficult and farmers are forced to rely on their wood stocks for energy or additional revenue. Lastly, farmers are concerned about growing wild animal populations, such as deer and turkeys, that are reducing crop yields. This problem is compounded by a decline in local hunting and a decrease in the number of nuisance animal hunting permits allotted by the Department of Environmental Conservation (DEC). As hunting leases are considered an important subsidy for farmers, this overall decrease in hunting is an additional economic blow to farm owners.

One area of new, untapped interest in the Northwest ARFA is the potential for wind energy. Some farmers are interested in the feasibility of individual renewable energy systems, particularly wind turbines, to offset on-site energy needs. For those farmers located in the southwestern portion of the ARFA where the wind resource near Connecticut Hill Wildlife Management Area is known to be strong, this may be a viable means of offsetting farm operating costs and even generating revenue.

Critical Issues

Three critical issues were identified within the Northwest ARFA:

- **Municipal Regulations** – This ARFA crosses the boundaries of three County municipalities and the varying levels of land use policy, regulation, and agricultural protection may begin to affect the integrity of agricultural resources.
- **Natural System Management** – Farmers identified natural system management as a priority in the ARFA, particularly a need to address water impacts on agricultural fields, improved forest management, and controlling nuisance animal populations.
- **Vehicular Conflicts** – With many feeder roads to State Route 96, a major commuting corridor in the County, the level of interaction between agricultural equipment and vehicular traffic is growing and is having a negative impact on agricultural activity.

Proposed Actions

Identified protection strategies for preserving the agricultural viability of this ARFA are:

- Conduct PDR outreach to the Towns of Enfield and Ulysses.
- Conduct agricultural assessment and lease agreement outreach to existing and new farmers.
- Enhance vegetative buffers on farms, including stream buffers and wooded lots. Stream buffer protection should begin with creeks that feed Taughanock Falls and Robert Treman State Parks.
- Investigate roadside drainage ditch concerns and any connection to failed field tiles.
- Schedule a discussion between DEC and area farmers regarding increasing the number and availability of nuisance permits in the Northwest ARFA.
- Implement measures to address traffic conflicts between agricultural equipment and vehicles along secondary roads, including the examination of speeds and commuting routes.
- Identify inactive agricultural lands that could be utilized by agricultural operations.
- Coordinate agricultural planning activities across Tompkins-Schuyler-Seneca County lines.

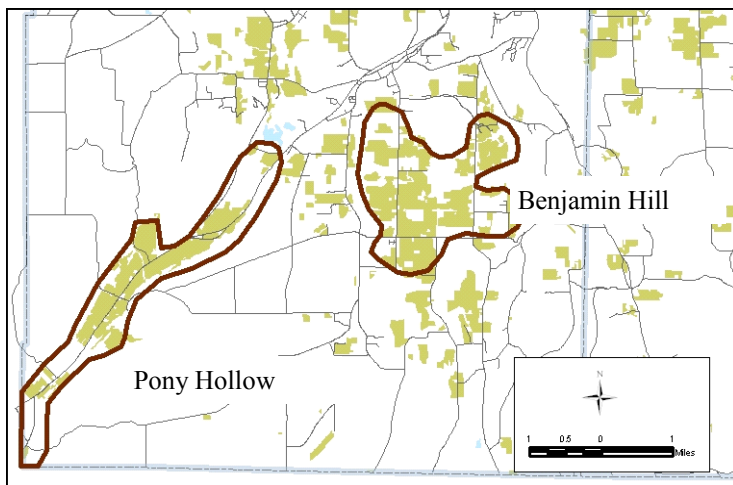
Pony Hollow and Benjamin Hill: Newfield ARFAs Profile

Background

The Pony Hollow and Benjamin Hill Agricultural Resource Focus Areas (ARFAs) are located in close proximity to one another in the Town of Newfield. For this reason, as well as the interdependence that exists among farmers between the areas, these focus areas will be addressed together as the Newfield ARFAs.

The Newfield ARFAs are composed of 4,085 total acres making them the smallest of all the ARFAs, even when combined.

Newfield ARFAs



Active Agricultural Land Map

Benjamin Hill is centrally located in the Town of Newfield, just south of Newfield Center, with a landscape that is characterized by rolling hills and woodlands.

Almost all of the Prime soil in this ARFA remains undeveloped and is actively utilized for agriculture.

Pony Hollow is a long, flat valley landscape that straddles State Route 13, running from the center of Newfield southwest to the corner of Schuyler and Tioga Counties.

One area of great difference between the two Newfield ARFAs is farm size and ownership. Benjamin Hill is comprised of several small-sized farms (average 132

acres). Meanwhile, Pony Hollow has four farm operations though only two large active farms that are composed solely of owned lands (approximately 1,000 acres apiece).

Today, only three of the 25 dairies that were in production in the Newfield ARFAs 50 years ago remain, and field crops are now the dominant farming operation. A notable operation in the Benjamin Hill ARFA is Little-tree Orchards, a low-spray orchard that has a regional



Looking across a field of oats on Mazourek Farms

draw. Additionally, the emerging presence of horses and livestock, particularly in Benjamin Hill, suggest that these particular farming operations may be well suited to take advantage of the hilly lands and lesser quality soils in this ARFA, effectively maintaining viable farming in the area.

Geography

Topography and Soils

Benjamin Hill

As the name suggests, Benjamin Hill is a single hill that peaks at 1,640 feet and slopes down gently to 860 feet at its lowest point. Benjamin Hill contains just one percent Prime soils – the lowest percentage of prime soils of all six ARFAs – and 73 percent Soils of Statewide Significance, which is the highest of the ARFAs.

Pony Hollow

By comparison, 37 percent of the Pony Hollow ARFA is made up of Prime Soils. The Pony Hollow valley contains some of the best soils in the southern part of Tompkins County. Almost all of the Prime soil in this ARFA remains undeveloped and is actively utilized for agriculture. Steep slopes rise up at the edge of the focus area to the surrounding forested hills. A few pasturelands exist on the moderate slopes rising off the valley floor, but most of the steep slopes are forested.

Natural Features

Benjamin Hill

Benjamin Hill hosts a noteworthy view of undulating hills and a working farm landscape on Shaffer Road near the intersection with Adams Road. Benjamin Hill is adjacent to both the Van Buskirk Gulf Natural Feature Focus Area (NFFA) and to a major wetland complex. As noted in Part I of the Conservation Plan, the Van Buskirk Gulf NFFA provides critical forest and riparian habitat which supports a diverse array of animals and plants. This area is also classified by the Tompkins County Environmental Management Council as a Unique Natural Area (UNA) – UNA-170.

Pony Hollow

Pony Hollow is nestled between the forestlands of Connecticut Hill State Wildlife Management Area and Newfield State Forest. It is also adjacent to significant private forest holdings owned and managed by Cotton Hanlon Timberland Management Company, making it an important open space connection in terms of habitat.

Overall, more than 10 percent of Pony Hollow is classified as Unique Natural Areas (UNAs). The most prominent UNA is a 158-acre wetland named Key Hill Swamp Preserve and Seven Springs Swamp (UNA-166). This UNA is described, as “a mosaic of deciduous swamp, marsh, and wet meadow in the valley of the West Branch of the Cayuga Inlet.” The Pony Hollow Creek Marshes and Swamp (UNA-192) is in the southern reach of the ARFA and is just over 18 acres.

Local Influences

Local Laws

As stated earlier, the Newfield ARFAs both fall within the jurisdictional boundaries of the Town of Newfield. As noted in the following table, Newfield does not have zoning regulations, nor does it have any formal methods for farmland protection. However, the Town of Newfield has recently formed a planning board, and that group, through the comprehensive planning process, is looking more closely at agricultural issues.

Newfield ARFA Municipal Planning Table

Municipality	Newfield
Comprehensive Plan (Year)	No*
Comprehensive Plan Agriculture Element	No
Right to Farm Law	No
Zoning	No
Agricultural Zoning District	No
Cluster Zoning	No
Agricultural Areas Identified for Protection	No
Active with NYS PDR	No
Town based PDR	No

*Comprehensive Plan currently in development.

Water and Sewer Infrastructure

All local water infrastructure is located entirely outside of the Newfield ARFAs. A small section of water line that serves Newfield Center near the northern boundary of the Benjamin Hill ARFA, along Benjamin Hill and Van Kirk Roads. Also, limited sewer infrastructure exists in Newfield Center.

Farming in the Newfield ARFAS

Newfield ARFAs Farm Statistics Table

	Benjamin Hill	Pony Hollow
Total ARFA Acreage	2,155	1,930
# of Farm Operations*	12	4
Total Farm Operation Acres (active+inactive agricultural land)	1,584	1,702
Average Farm Operation Size (acres)**	132	426
% Total of ARFA in Active Agriculture, 2007	56%	44%
% Loss of Agriculture Land (active + inactive), 1969-2007	19%	9%
% Owned; % Leased Farm Operation Acres***	56% owned; 44% leased	100% owned; 0% leased
% Prime Soil; % Soils of Statewide Significance (SOSS)	1% Prime; 73% SOSS	37% Prime; 28% SOSS
Estimated # Dairies	3	1

*See Newfield ARFAs Map 1 - Farm Operations (2007)

**See Newfield ARFAs Map 2 - Farm Operation Size (2007)

***See Newfield ARFAs Map 3 - Owned-Leased Farmland (2007)

Land Use Trends

From 1969-2007, the Benjamin Hill ARFA lost nearly 19 percent (321 acres) of agricultural land. Over the same period of time, almost 9 percent (88 acres) of agricultural land was lost from the Pony Hollow ARFA. Meanwhile, lands considered forest, brush, or grass lands increased by 82 acres in Pony Hollow and 135 acres in Benjamin Hill. Though some agricultural lands in the Newfield ARFAs have been lost, the number of farms has remained relatively stable. While agriculture maintains a presence in Newfield, its influence appears to be diminishing with increasing numbers of residential neighbors.

Development Pressure

Though little development activity has occurred in the Newfield ARFAs over the past two decades, one key piece of farmland comprised of 151 acres in the Benjamin Hill ARFA was subdivided into 28 parcels for residential development in 2008. This transaction significantly altered the amount of agricultural land in the ARFA and has raised concerns about the potential increase in land values as well as further speculation in the area.

Farm Community Voices

While the Newfield ARFAs are geographically separated and have very different soils and topographies, the small group of farmers who attended a winter farmer focus group meeting were well acquainted. Responding to a question about innovation in agriculture in the area, farmers note watching with keen interest the new, organic operators that are advancing into the area and are proving to be financially viable. Additionally, several farmers are committed to using sustainable techniques on their farms, including no-till planting.

Until recently, development pressure has been largely absent in the ARFA, however, the aforementioned subdivision has created quite a bit of concern among area farmers. The land sold for a price well above the affordability level of farmers, who are watching to see if this land sale has further repercussions on farming. Some farmers are making deliberate decisions to forgo subdividing land, even with the promise of profit, due to the potential for farm-neighbor conflict, reduced agricultural viability, and increased assessments. Overall, the general sentiment of the farm community is that farming should continue in the Benjamin Hill and Pony Hollow ARFAs, but mandated protection through regulation is generally not supported.

Farm Profile-Mazourek Farms



Mazourek Farms was started as a dairy by Elois Mazourek in 1906 and then was passed on to Rudolph Mazourek, who also opened a farm equipment store on the premises in 1932 that is still in operation today. The third generation, brothers Bob and Richard, continue to run the farm, although they eliminated the dairy four years ago, when the farm transitioned to crop production. Today, Mazourek Farms primarily grows barley, corn, oats, hay, and soybeans.

Mazourek Farms consists of 1,011 acres of farmland that is predominately composed of Prime soils. This farm is situated in a valley that connects Newfield State Forest and the Connecticut Hill Wildlife Management Area (WMA).

The stability of rented farmland is a serious consideration for many of the farmers, particularly in the Benjamin Hill ARFA. In one particular case, a farmer whose operation consists exclusively of leased land in the Benjamin Hill ARFA believes his operation could be shut down at any time based on the whim of a given landowner, as he is unable to afford to purchase land in the area.

The forestlands of Cotton Hanlon and New York State that are adjacent to the Newfield ARFAs could potentially impact agricultural land and the agricultural landscape, depending on future decisions made by these two entities. Additionally, farmers consider hunting on their lands, associated with these forests, as a significant cultural activity and supplemental income opportunity.

Critical Issues

Three critical issues were identified within the Pony Hollow and Benjamin Hill ARFAs:

- **Farmland Protection** – Pony Hollow contains two of the County’s largest farms and has significant Prime soil deposits. This rich agricultural valley also serves as a bridge that connects major swaths of state land and noted natural areas. This ARFA is susceptible to development due to its substantial State road frontage. For these reasons, a protection strategy is needed.
- **Lease Coordination** – More opportunities for Pony Hollow-Benjamin Hill ARFA lease coordination should be explored, including mechanisms to support farm operation transitions from owner to renter and alternatives to traditional succession.
- **Land Use Regulation** – Presently, the Town of Newfield does not have land use controls to designate agricultural areas, regulate density in these areas, or to prohibit non-agricultural uses from spreading into agricultural areas.

Proposed Actions

Identified protection strategies for preserving the agricultural viability of this ARFA are:

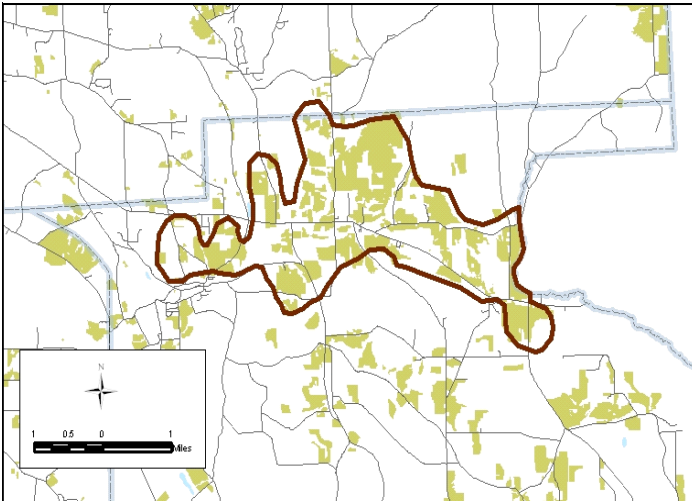
- Promote the use of conservation easements or PDR on the large farms in Pony Hollow. These farms contain valuable agricultural resources and are particularly isolated, making it difficult for other farms to incorporate them into their operations.
- Assist farmers with strategies to stabilize land lease agreements.
- Integrate farmland protection measures into a Town Comprehensive Plan and identify specific areas and actions for agricultural protection in the plan.
- Identify marginal lands with potential for biomass production.
- Promote sustainable forestry management on farms and forest product development, such as maple syrup, in the substantial wooded border of farms in these ARFAs.

Sixmile Creek Valley ARFA Profile

Background

The Sixmile Creek Valley Agricultural Resource Focus Area (ARFA) is composed of 4,774 acres of land located in the north-central section of the Town of Caroline. This agricultural area flanks State Route 79, extending from the Tompkins-Tioga County line in the east toward the Town of Danby municipal line in the west. This ARFA is characterized by rolling hills, several significant watercourses that include Sixmile Creek and a large wetland complex, and both State and private forestland that border the area on three sides.

Sixmile Creek Valley ARFA Active Agricultural Land Map



Over the last 30 years, the Town of Caroline has lost more than 80 percent of its full-time farmers during a period of decline in active agriculture, as agricultural land returned to brush and forest.

Today, the Sixmile Creek Valley ARFA has the highest rate of rental activity of any of the ARFAs, at 45 percent (1,523 acres). It also has the greatest number of farm parcels that fall outside the designated Agricultural District. These two issues together suggest the tenuous existence and transitional nature of farming, as a local economic force, in the Sixmile Creek Valley ARFA.

Farming in the ARFA has been shifting away from its historic roots of full-time dairy farming toward smaller, part-time field crop operations. Recently, horse farms,

The Sixmile Creek Valley ARFA has the highest rate of rental activity of any of the ARFAs, at 45 percent.

greenhouses, and new field crop operations, including dry beans and small grains, have grown in and around the Sixmile Creek Valley ARFA, breathing new life into the area's farming community. These smaller operations seem to be appropriately scaled for farming viability given the topography and soils of the ARFA.

Geography

Topography and Soils

Sixmile Creek Valley ARFA is situated in the high, east end of the Sixmile Creek Watershed. The largest deposits of Prime soil in this ARFA are located on the valley floor, where there are excellent agricultural resources near State Route 79. Hills rising from this valley are moderately sloped, offering pasture and cropping opportunities. This ARFA has 21 percent Prime soils and 40 percent Soils of Statewide Significance.



Natural Features

Sixmile Creek plays a significant role in the ARFA, providing water and irrigation to several area farms that border its banks. The majority of this ARFA is in the Sixmile Creek Watershed, which drains to Cayuga Lake, though some land on the eastern edge of the ARFA is in the West Branch of Owego Creek Watershed.

This ARFA's landscape, with its rolling hills and valleys, affords scenic views, including a panoramic view at Creamery Road near the intersection of Central Chapel Road, looking northwest across the agricultural landscape.

Local Influences

Local Laws

The Sixmile Creek ARFA is almost completely contained within the Town of Caroline, with a very small section extending into the Town of Dryden. Land with high agricultural value that is identified in the Town of Caroline's Comprehensive Plan vision map corresponds closely with the Sixmile Creek Valley ARFA area. A summary of municipal planning activity is listed in table below.

**Sixmile Creek Valley ARFA
Municipal Planning Table**

Municipality	Caroline
Comprehensive Plan (Year)	Yes (2006)
Comprehensive Plan Agriculture Element	Yes
Right to Farm Law	Yes
Zoning	No
Agricultural Zoning District	No
Cluster Zoning	No
Agricultural Areas Identified for Protection	Yes
Active with NYS PDR	No
Town based PDR	No

Water and Sewer Infrastructure

There is neither water nor sewer infrastructure in the Sixmile Creek Valley ARFA or its immediate vicinity.

Farming in the Sixmile Creek Valley ARFA

**Sixmile Creek Valley ARFA Farm
Statistics Table**

Total ARFA Acreage	4,774
# of Farm Operations*	19
Total Farm Operation Acres (active+inactive agricultural land)	3,389
Average Farm Operation Size (acres)**	178
% Total of ARFA in Active Agriculture, 2007	47%
% Loss of Agriculture Land (active + inactive), 1969-2007	25%
% Owned; % Leased Farm Operation Acres***	55% owned; 45% leased
% Prime Soils; % Soils of Statewide Significance (SOSS)	21% Prime; 40% SOSS
Estimated # Dairies	3

*See Sixmile Creek Valley ARFA Map 1 - Farm Operations (2007)

**See Sixmile Creek Valley ARFA Map 2 - Farm Operation Size (2007)

***See Sixmile Creek Valley ARFA Map 3 - Owned-Leased Farmland (2007)

Land Use Trends

From 1969-2007, the amount of agricultural land in the ARFA dropped by nearly 25 percent (882 acres). While all six of the ARFAs experienced a loss of agricultural land since 1969, Sixmile Creek Valley ARFA lost the greatest percentage of land. This ARFA also had the highest percentage increase in acreage of land considered forest, grass, or brush from 1969-2007. This suggests that much of the agriculture land of the past was of poorer quality and has been allowed to become fallow. Most of the land currently in production today yields hay and field crops.

Development Pressure

Currently, there is limited development pressure in the Sixmile Creek Valley ARFA. Although the rate of residential development has been relatively slow in the area, there is definite potential for future development pressure. State Route 79 is a major transportation connection to Tompkins County from Interstate 81, particularly to Cornell University. As East Hill in Ithaca is built out, the Town of Caroline, and subsequently this ARFA, may experience growth pressure.

Farm Community Voices

A small group of area farmers attended the Sixmile Creek Valley focus group held in January 2009. According to these local farmers, this is a period of great transition in local farming. While dairy used to dominate the agricultural landscape, only three dairies remain locally, and they expect only one to be in production in five-years time. Due to the topography, soil conditions, and the isolated nature of this ARFA, smaller farming operations are more likely to succeed here, including horse farms, hay, and other crops.

need in the area is for design guidelines or technical assistance that could help to define appropriate areas for residential development near active farming, though it is clear that area farmers are not supportive of regulation of their lands.

Overall, farmers feel that agriculture is a defining characteristic of the Town of Caroline and that the majority of local residents support the preservation of agriculture in the Town.

Farm Profile—Cayuga Pure Organics



In 2003, Erick Smith and Dan Lathwell founded Cayuga Pure Organics (CPO) in the Sixmile Creek Valley. CPO grows certified organic dry beans, grains, and other crops with a focus on providing locally grown staple crops for human consumption. CPO's commitment to sustainable and organic practices is an example of farming transition in the Sixmile Creek Valley ARFA. This farm provides goods to local buyers as well as to New York City's Greenmarket.

Though there are still several full-time farmers in the area, most are part-time farmers in the Sixmile Creek Valley ARFA.

Cayuga Pure Organics (CPO), a farm that leases a large amount of land within the ARFA, is mentioned by local farmers as a particularly exciting development in the area. CPO has expanded operations, leased more land, established a local market in Brooktondale, and has just opened a flourmill in Trumansburg.

Though there is more than enough land available for farming in the area, farmers suggest that there might be a limiting amount of farm infrastructure, including barns, for current use. According to farmers, another

Critical Issues

Three critical issues were identified within the Sixmile Creek Valley ARFA:

- **Transition of Farm Operations** – Farming in the Sixmile Creek Valley ARFA is shifting away from its historic roots of full-time dairy farming toward smaller, part-time field crop operations.
- **Farmland Protection** – The north-central portion of the ARFA contains the largest area of contiguous, active farmland in the area. It currently includes one owner-operated dairy farm that is almost 900 acres in size. Assisting this specific farm operation with strategies for long-term protection would secure the core farmland of Sixmile Creek Valley ARFA.
- **Land Use Regulation** – Presently, the Town of Caroline does not have zoning controls to designate agricultural areas, regulate density in these areas, or to prohibit non-agricultural uses from spreading into agricultural areas.

Proposed Actions

Identified protection strategies for preserving the agricultural viability of this ARFA are:

- Stabilize land lease agreements, such as rolling five-year leases.
- Explore protection for the largest active, owner-operated farm in the ARFA.
- Further codify agricultural standards for subdivision regulations in the Town of Caroline.
- Utilize Sixmile Creek Valley's access to State Route 79 – a major commuting and tourism route to Ithaca – to publicize local farms.
- Identify markets for wood products, to take advantage of the significant forest resources on, and associated with, Sixmile Creek Valley farms.

Agricultural Protection Tools

Municipal Agricultural Protection

The following is a list of municipal regulations and specific agricultural protection tools for Towns and the County to consider as well as criteria for identifying lands with protection potential.

Comprehensive Planning

Local comprehensive planning is a good place to address strategies for agricultural protection. Either within, or independent of, a comprehensive plan there are tools that can be used locally to protect agriculture. These include agricultural assessment, agricultural districts, agricultural zoning, Right to Farm Laws, Purchase of Development Rights (PDR) and Transfer of Development Rights (TDR). In addition, comprehensive plans may designate locally significant agricultural resources and lands for priority protection.

Agricultural Districts

The New York State Agricultural Districts Law offers many benefits and protections to landowners with active farmland in a designated agricultural district. These benefits include limiting local regulations that unreasonably restrict or regulate farming practices. Agricultural districts can help to create an economic and regulatory climate that supports and protects the local agricultural economy. Inclusion of lands in agricultural districts is entirely voluntary.

There are two agricultural districts in Tompkins County, one is on the east side of the County and one on the west. These districts are formally reviewed every eight years on a rotating basis. All but two to three farms in each of the six identified ARFAs are located within one of these two designated Districts. The farms that fall outside the districts are generally adjacent to population centers. One notable exception is Sixmile Creek Valley ARFA, where five farm parcels within the ARFA are not in the designated Agricultural District, the footprint of which covers the ARFA.

Agricultural Assessment

Agricultural assessment is a tool for reducing taxes on land that is being actively cultivated. It is limited to land used in agricultural production (cropland, pasture, orchards, vineyards, sugar bush, 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 eligible for agricultural assessment per eligible tax parcel. Land and water used for aqua-cultural production are eligible, as is land including structures within which crops, livestock, or livestock products are raised.

The majority of actively-farmed lands within the Tompkins County ARFAs are agriculturally assessed. To be considered for agricultural assessment land must be more than seven acres in size and gross an average of \$10,000 over a two year period. If less than seven acres, it may qualify if gross annual sales are over \$50,000. Land does not have to be in an Agricultural District to receive agricultural assessment.

Agricultural Zoning

Agricultural zoning designates areas where farming will be encouraged and conflicting land uses discouraged. Some ordinances restrict residential density, while others authorize commercial agricultural activities, such as farm stands, that add to farm profitability. Agricultural zoning can stabilize the agricultural land base by keeping large tracts of land free of non-farm development, allowing communities to conserve contiguous agricultural land. Effective agricultural zoning includes: 1) an allowance for the expansion of agricultural support structures and businesses, such as farm markets, 2) a broad definition of agriculture to allow for evolving diversity of agricultural operations, and 3) exclusion of uses that conflict with agriculture (e.g. should not allow for subdivision at a scale that fragments agricultural lands).

Agricultural zoning exists in approximately half of Tompkins County, with a wide range of effectiveness in protecting and promoting agriculture. Three of the towns that host ARFAs do not have any zoning in place – Enfield, Newfield, and Caroline.

Right-to-Farm Laws

A Right-to-Farm Law protects farmers from nuisance lawsuits brought by neighbors objecting to normal farm activities. Such laws may also protect against local government-imposed ordinances that unreasonably restrict agricultural activities. Effective Right-to-Farm Laws make community statements about the importance of local agriculture and provide a dispute resolution process to mediate conflicts related to farming.

While several of the ARFAs are in municipalities that have Right-to-Farm laws in place, Enfield and Newfield have not adopted any laws of this nature. It should also be noted that some current Right-to-Farm laws in Tompkins County are not as effective as they could be in supporting agriculture.

Infrastructure Planning

Infrastructure planning can be used to support the farm economy and steer new development away from farmland into existing population centers. Like other industries, farms and agribusinesses require access to well-functioning and affordable infrastructure, including affordable electricity, roads, bridges and drainage systems. Transportation, water and/or sewer infrastructure, when sited in population centers, allows and encourages denser development patterns and reduces the cost of new development. On the other hand, infrastructure expansion into farming areas may encourage the conversion of farmland and send the signal that agriculture has a limited future in a given area.¹¹

Within the County, the eastern edge of the Northwest ARFA, southern portion of North Lansing-West Groton ARFA and southern portion of Northeast ARFA are all experiencing development pressure. Current infrastructure keeps development away from the ARFAs, though any future expansion could threaten these lands.

Subdivision Regulations

Subdivision ordinances govern the division of larger parcels into smaller pieces of land. These laws provide a town planning board with the authority to review and make decisions about proposed subdivisions to protect public interests and to ensure that new subdivisions do not accelerate flooding and erosion, traffic problems, and other negative impacts to a town. From an agricultural perspective, subdivision regulations can require the review of potential impacts of new subdivision on productive farmland and nearby farm operations. They can also stipulate design standards that help reduce the potential impacts of subdivisions on farms and farmland.¹²

Each of the ARFAs in the County is subject to differing levels of regulation regarding subdivision. Currently, the Newfield ARFAs are not subject to subdivision regulation. Subdivision regulations that support agriculture require developers to analyze the development impact on soil resources, existing and/or future farm operations, as well as both farm and non-farm traffic.

Purchase of Development Rights (PDR)

Purchase of Development Rights (PDR) is a land protection tool that pays landowners to protect their land from development. In an effort to preserve active agriculture, rural character, and scenic viewsheds, municipalities may work cooperatively with land trusts, the County, New York State and the Federal Government to buy development rights and create conservation easements in order to limit development.

To date, PDR has been used to protect the agricultural resources a handful of farms in the Towns of Lansing, Dryden, and Ithaca.

Transfer of Development Rights (TDR)

Transfer of Development Rights (TDR) is used to protect land by transferring the development rights from one area to another. It protects land while also allowing for higher than normal density outside the targeted protection area. In order to work, there must be clear sending and receiving areas and an active market for development.

In Tompkins County, this could occur by placing a conservation easement on a property in a designated ARFA while simultaneously permitting an increase in development density (density bonus) within a target area, such as an existing population center or development focus area nearby. The cost of purchasing easements would be recovered from developers that receive density bonuses.

Land Banking

Land banking properties within an ARFA for future agricultural use would entail developing a strategic land acquisition program (potentially at the municipal or County level or via non profits) to guide the purchases of agricultural land. Goals might include maintaining strategically located farmlands, retaining lands with Prime soils for farming, or protecting open, natural areas. More common internationally, land banks can be structured in a number of different ways often with a non-profit entity acquiring and maintaining land between agricultural uses. When a farmer is ready to sell land, the established entity purchases and holds the land until an agricultural buyer is identified.

11 Guide to Local Planning for Agriculture in New York, 2006. American Farmland Trust, pg. 58.

12 Guide to Local Planning for Agriculture in New York, 2006. American Farmland Trust, pg. 43.

Criteria for Agricultural Protection

When considering agricultural protection tools, a set of criteria should be utilized to determine the highest benefit of protective actions. The following criteria should be considered for determining how to allocate local or State funds for agricultural protection:

- Farmland that has a high concentration of Prime Soils and Soils of Statewide Significance;
- Farmland that is in an area with contiguous, active farmland;
- Farmland that has minimal small lot subdivisions dividing the land base;
- Farmland that incorporates or is adjacent to natural resources identified for protection, where protection would afford multiple benefits;
- Farmland threatened by encroaching residential development or water/sewer infrastructure, suggesting development pressure; and
- Farmland situated at the edge of a developed area, that can be protected to create a natural boundary between development and agriculture.

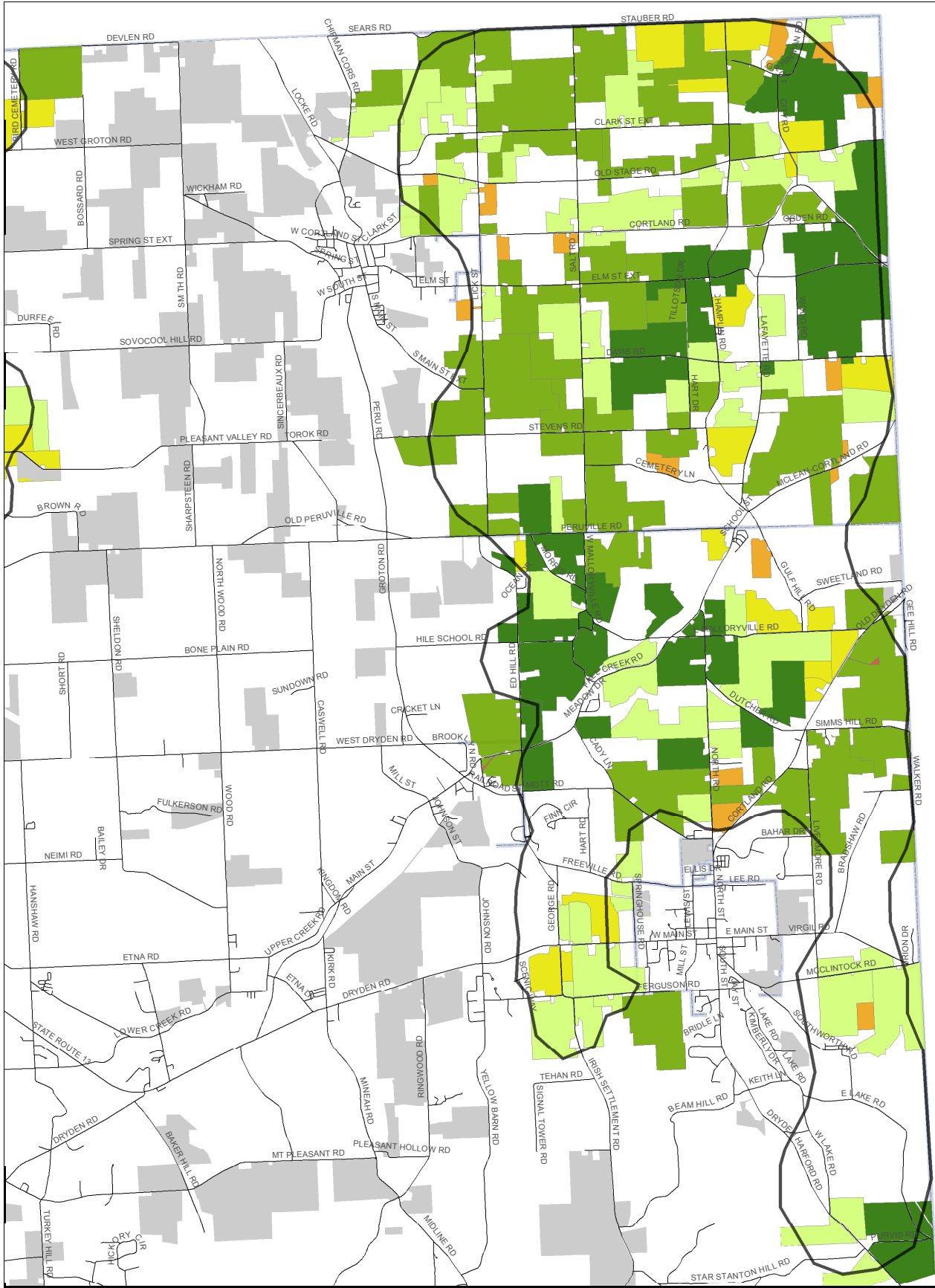
It should be stated that land protection takes place almost exclusively through the voluntary participation of landowners or through routine sale of property. As such, it is necessary to be flexible in developing priorities for protection, based on the changing interests of landowners.









Tompkins County Agricultural Information

For more information about Tompkins County agriculture and farmland protection related efforts, please visit the ‘Rural Resources’ section of the Tompkins County Planning Department website:

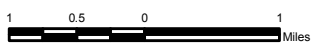
[http://www.tompkins-co.org/planning/\"Rural Resources\" Section](http://www.tompkins-co.org/planning/\)

ARFA Map Appendix



-  Agricultural Resource Focus Area
-  1-9 acres
-  10-49 acres
-  50-179 acres
-  180 to 499 acres
-  500-999 acres
-  >1000 acres
-  Other Farmland

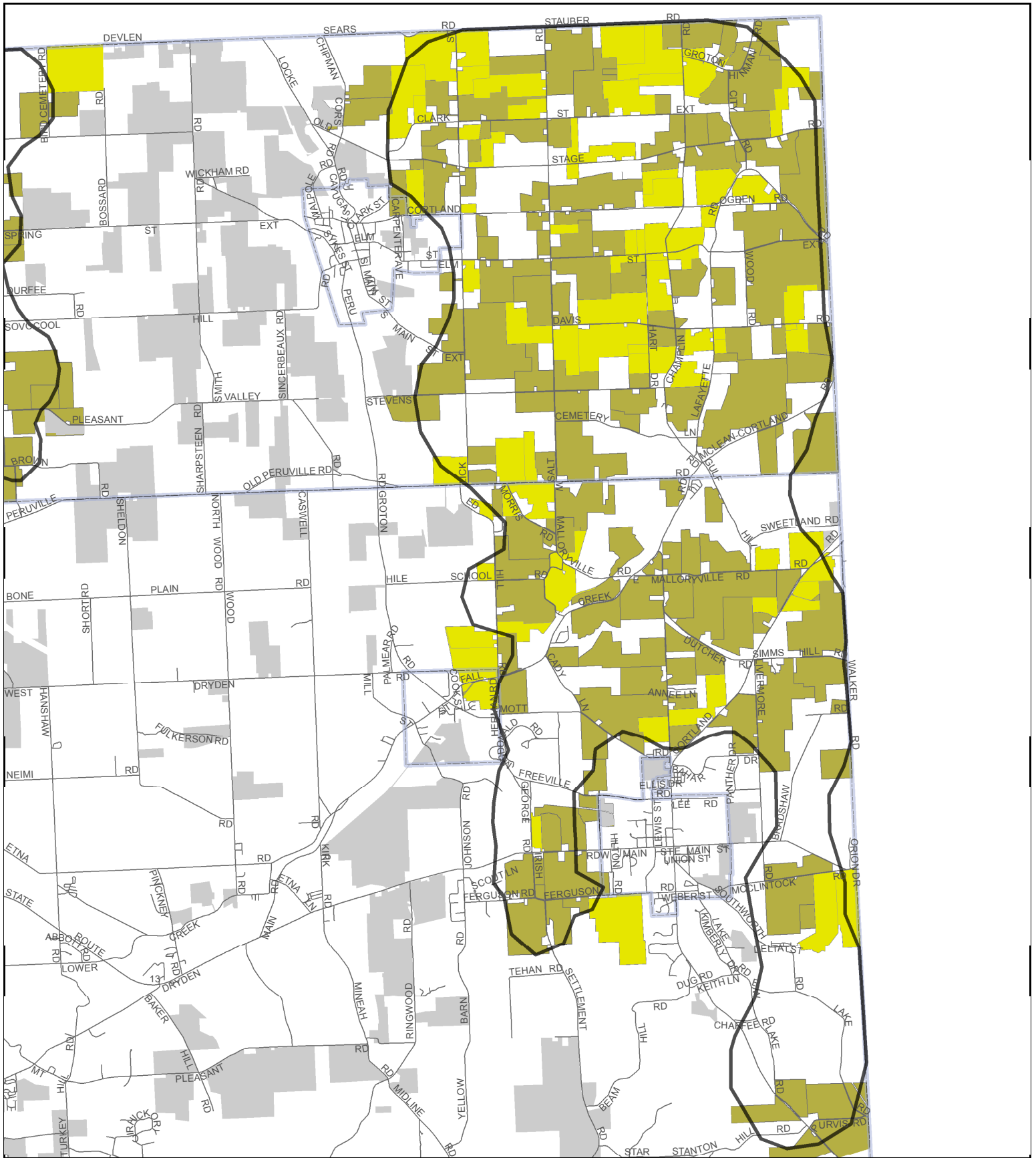
Northeast ARFA Map 2 Farm Operation Size (2007)







Tompkins County Planning Department

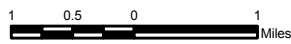
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Tax parcel and other data sources from 2007

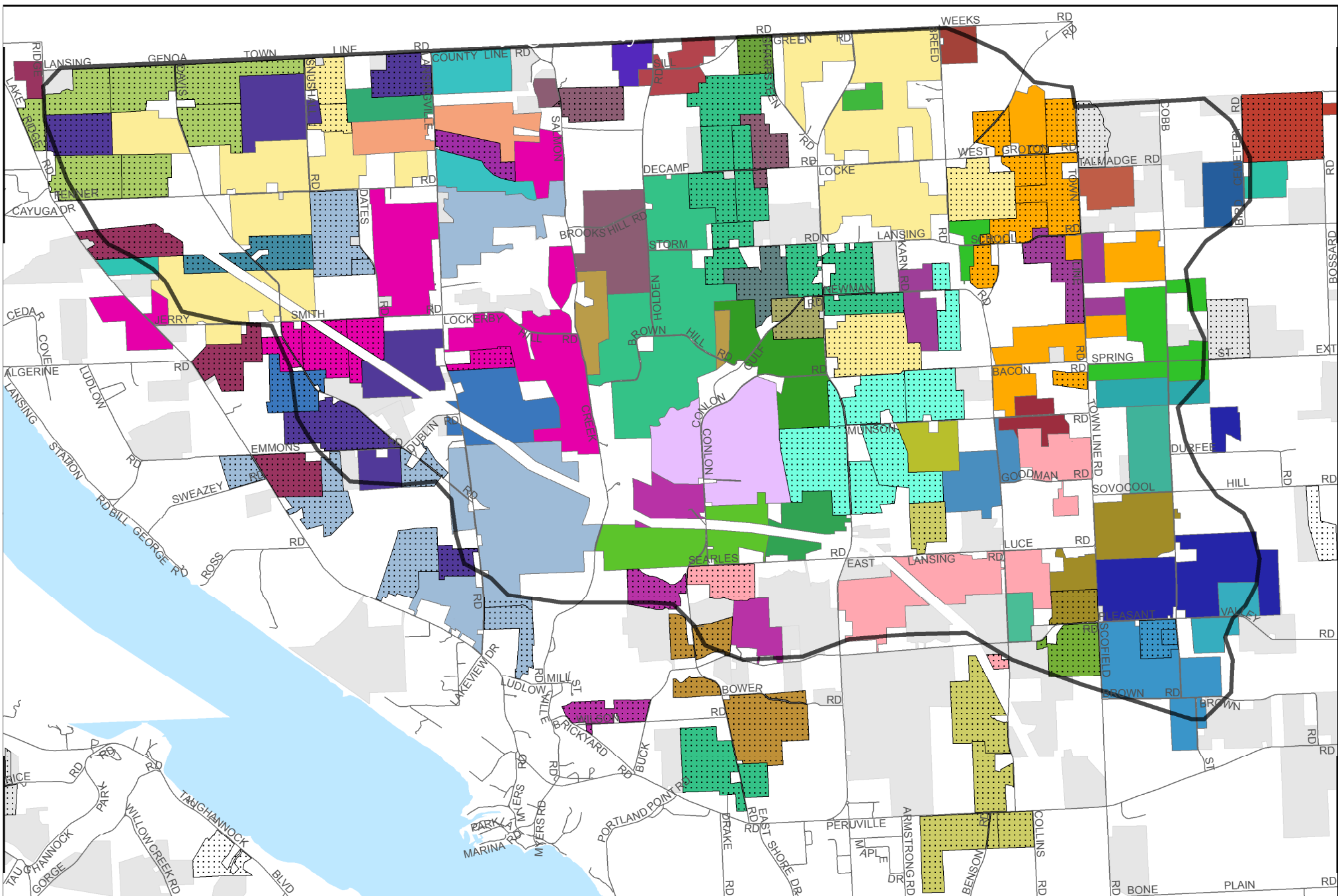


Northeast ARFA Map 3 Owned-Leased Farmland (2007)

-  Agricultural Resource Focus Area
-  Farmer-Owned Operations
-  Leased Agricultural Parcels
-  Other Farmland



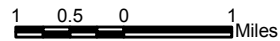
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North Lansing - West Groton ARFA Map 1 Farm Operations (2007)

- Agricultural Resource Focus Area
- Leased Ag Parcels
- Other Farmland

Each color represents an individual farm operation in the ARFA

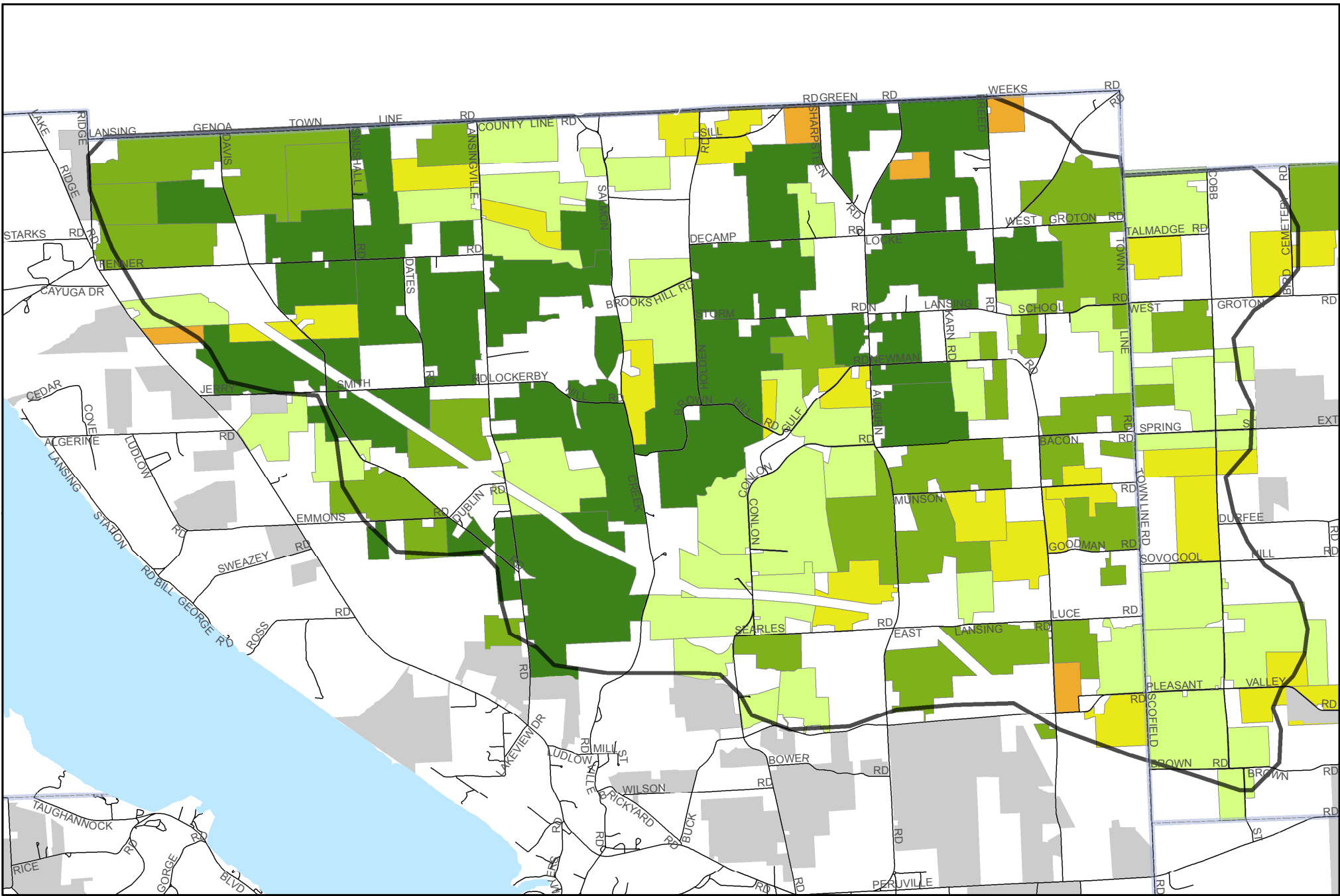


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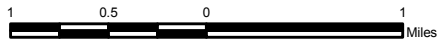
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Tax parcel and other data sources from 2007



- 1-9 acres
- 10-49 acres
- 50-179 acres
- 180 to 499 acres
- 500-999 acres
- >1000 acres
- Agricultural Resource Focus Area
- Other Farmland

North Lansing-West Groton ARFA Map 2 Farm Operation Size (2007)

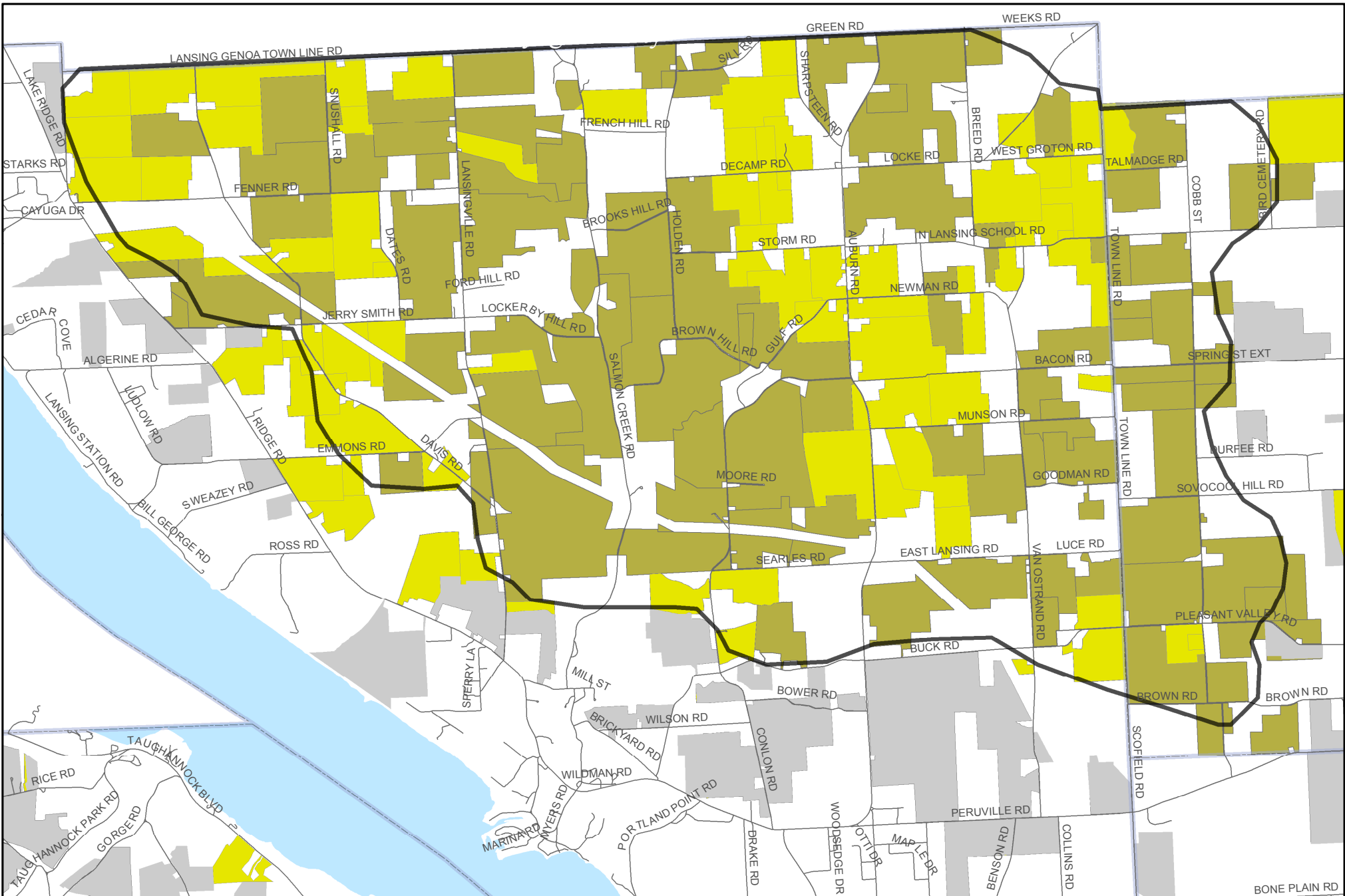






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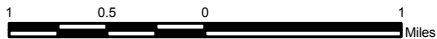


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Tax parcel and other data sources from 2007



-  Agricultural Resource Focus Area
-  Farmer-Owned Operations
-  Leased Agricultural Parcels
-  Other Farmland



North Lansing-West Groton ARFA Map 3 Owned-Leased Farmland (2007)

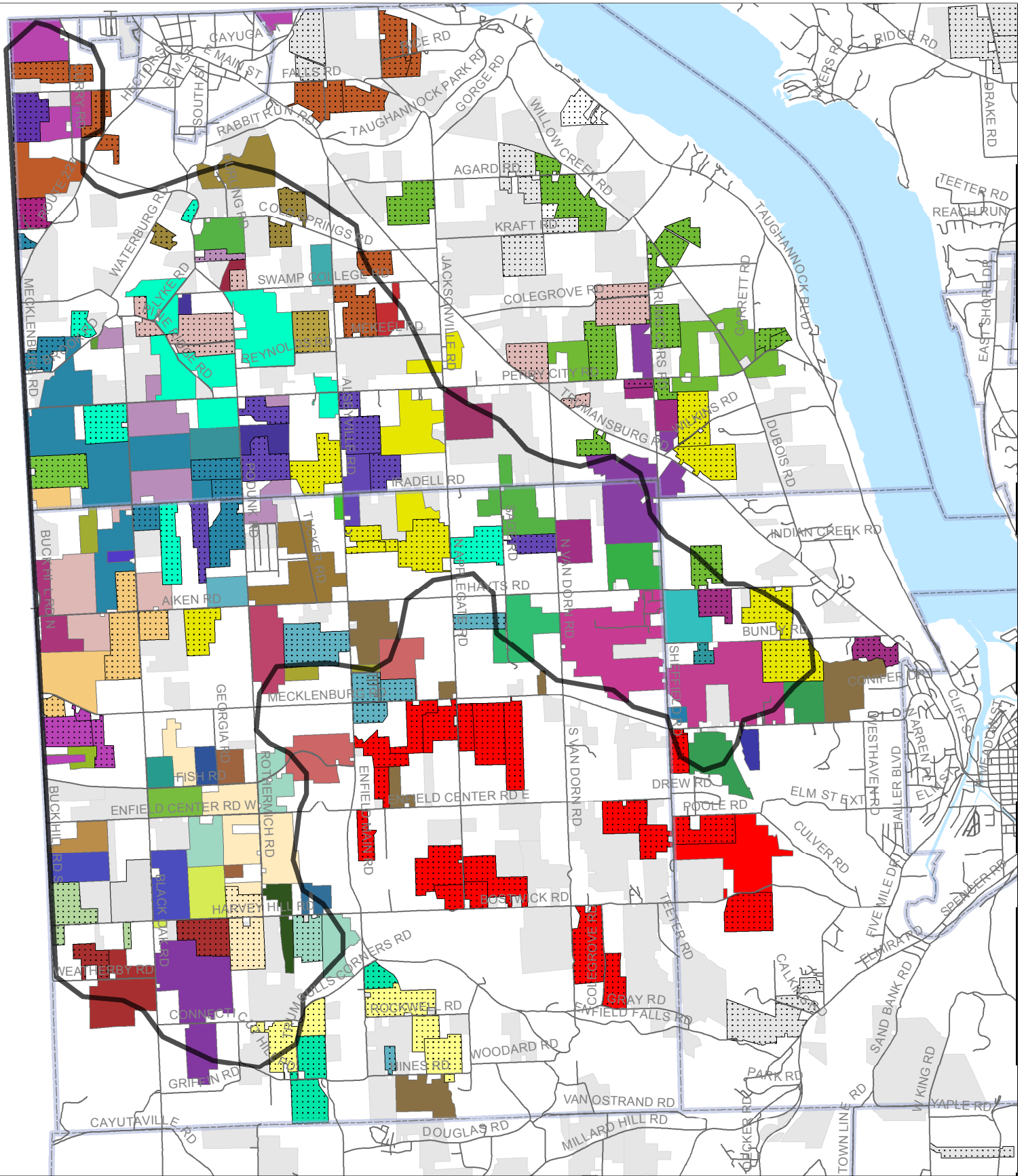


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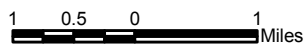
Tax parcel and other data sources from 2007



Northwest ARFA Map 1 Farm Operations (2007)

-  Agricultural Resource Focus Area
-  Leased Ag Parcels
-  Other Farmland

Each color represents an individual farm operation in the ARFA

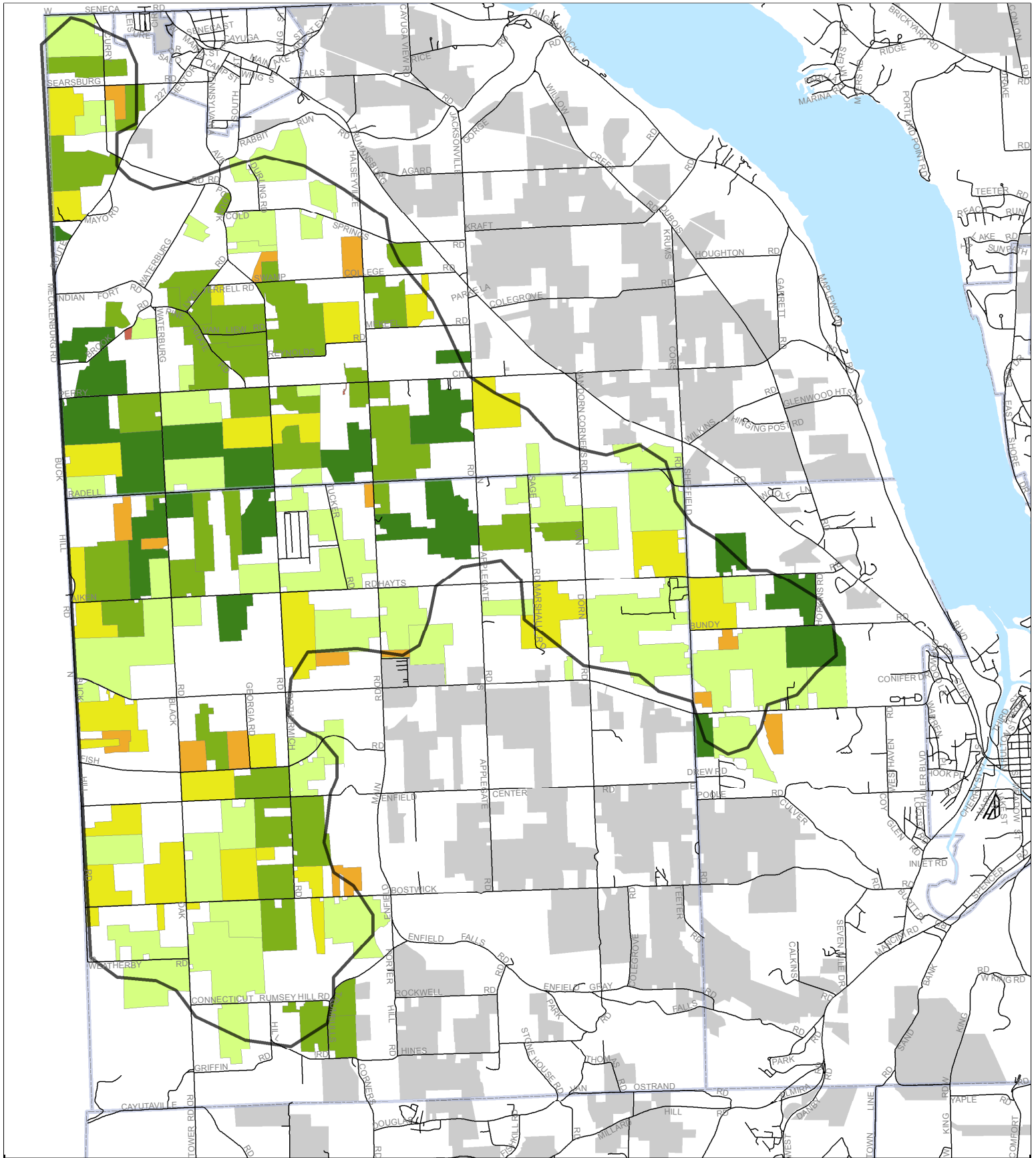










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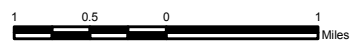
Tax parcel and other data sources from 2007



-  Agricultural Resource Focus Area
-  1-9 acres
-  10-49 acres
-  50-179 acres
-  180-499 acres
-  500-999 acres
-  >1000 acres
-  Other Farmland



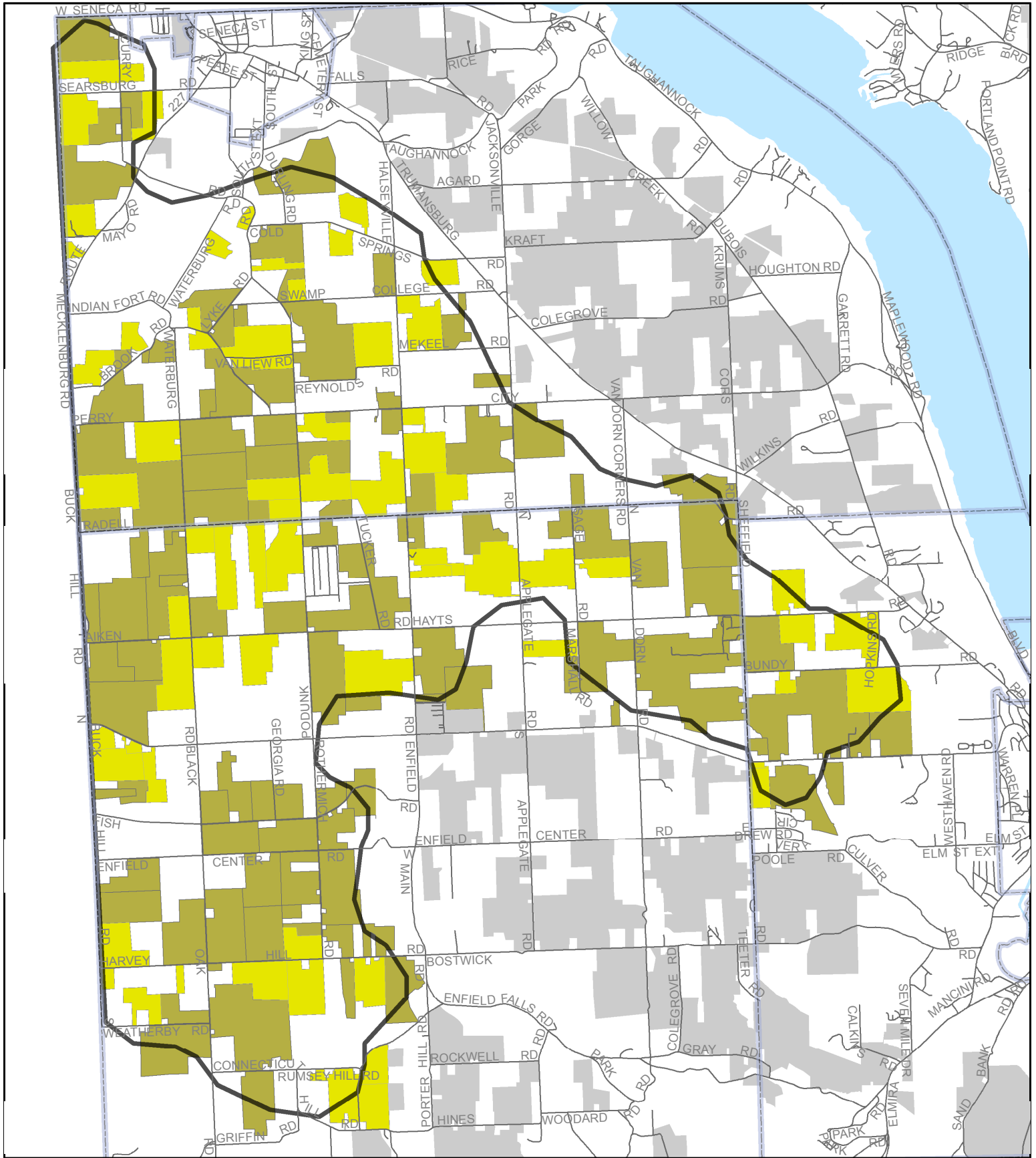
Northwest ARFA Map 2 Farm Operation Size (2007)







Tompkins County Planning Department

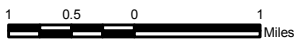
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Northwest ARFA Map 3 Owned-Leased Farmland (2007)

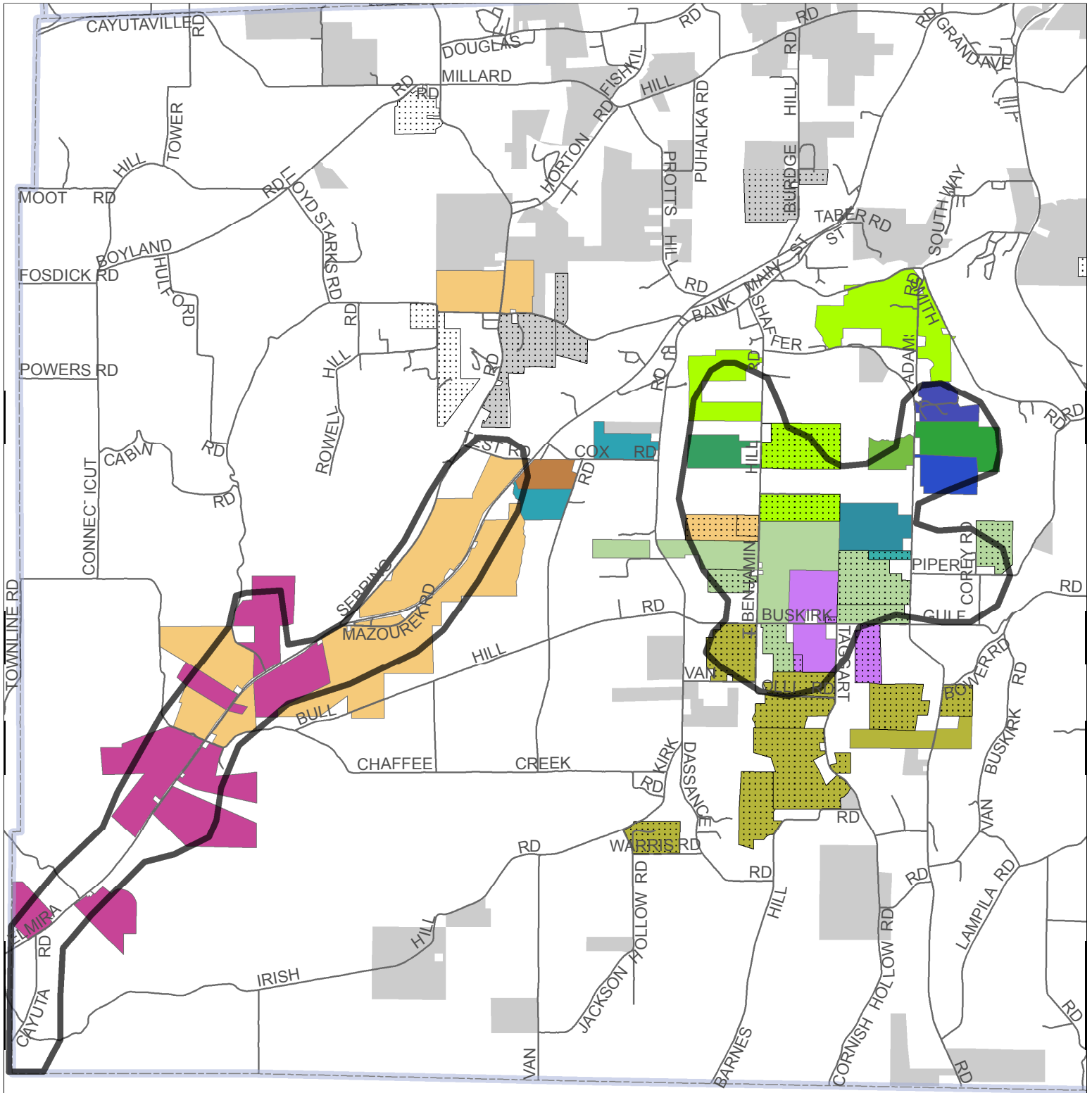
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-  Farmer-Owned Operations
-  Leased Agricultural Parcels
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Tompkins County Planning Department

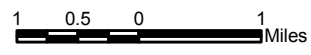
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Newfield ARFAs Map 1 Farm Operations (2007)

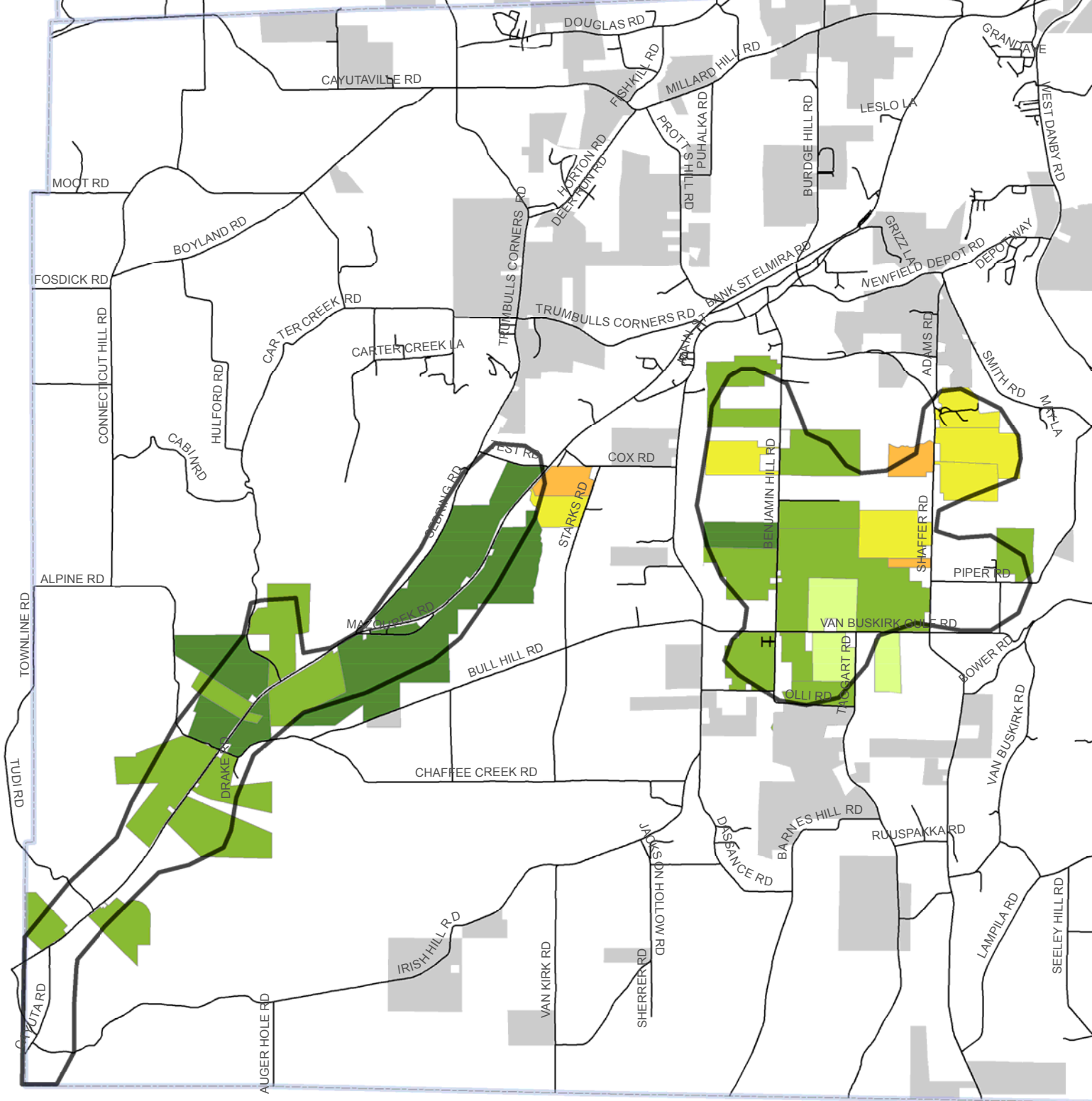
- Agricultural Resource Focus Area
- Leased Ag Parcels
- Other Farmland











Each color represents an individual farm operation in the ARFA

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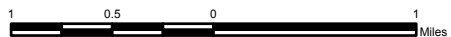
Tax parcel and other data sources from 2007



-  Agricultural Resource Focus Area
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-  Other Farmland



Newfield ARFAs Map 2 Farm Operation Size (2007)

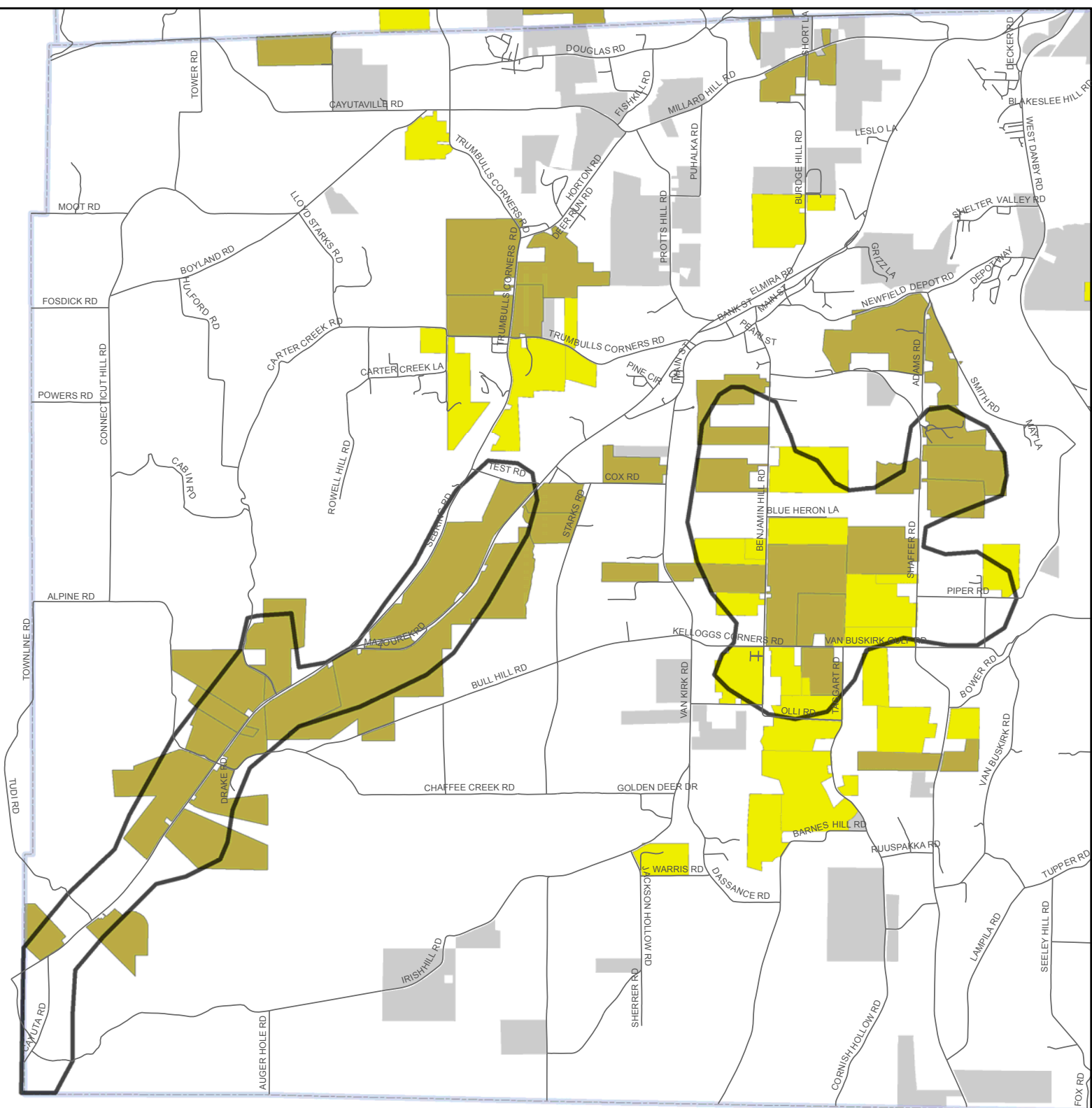


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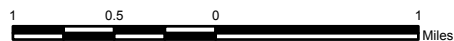
This map represents a compilation of graphical and textual information from various sources including deeds and surveys, a digital planimetric base map, and digital conversion of hand-drawn mylar maps. Errors and omissions can occur from each of these sources; each source represents a large number of records and originators of information. As a practical matter, the County does not warrant the accuracy or completeness of the information portrayed. The end user of these maps agrees to accept the data "as is" with the full knowledge that errors and omissions may exist, and to hold harmless the County for any damages that may result from an inappropriate use of these maps.

Tax parcel and other data sources from 2007



Newfield ARFAs Map 3 Owned-Leased Farmland (2007)

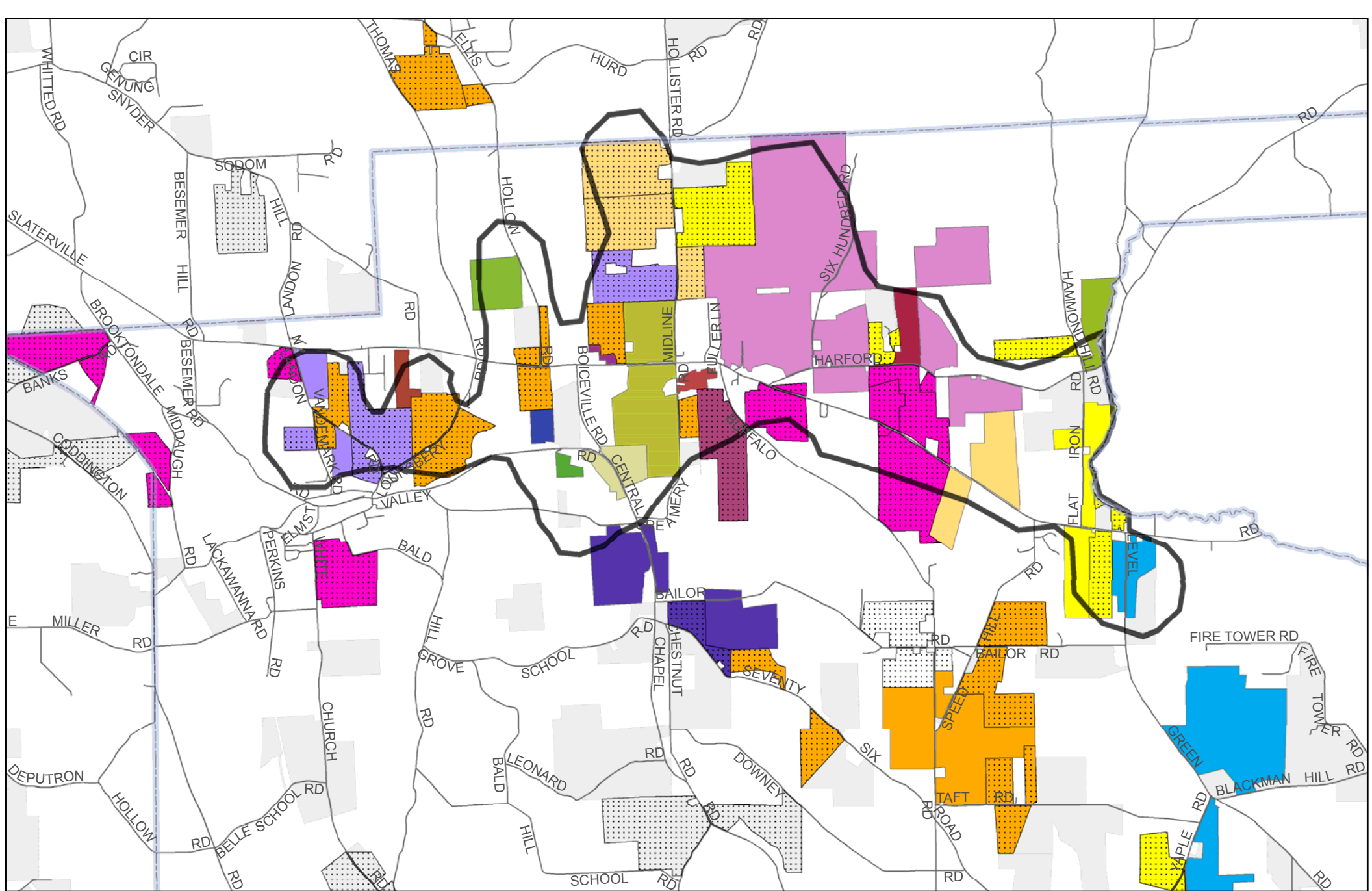
- Agricultural Resource Focus Area
- Farmer-Owned Operations
- Leased Agricultural Parcels
- Other Farmland



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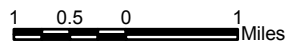
Tax parcel and other data sources from 2007



Sixmile Creek Valley ARFA Map 1 Farm Operations (2007)

- Agricultural Resource Focus Area
- Leased Ag Parcels
- Other Farmland

Each color represents an individual farm operation in the ARFA



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Tax parcel and other data sources from 2007

