

Onondaga County, New York

Municipal Reference

For Agricultural

Land Use

Planning

September, 2002

Prepared by:

**Roberta Harrison
Cornell Cooperative Extension
Onondaga County
220 Herald Place
Syracuse, New York 13202**

Project managed by:

**Doug Morris, Planner
Syracuse-Onondaga County Planning Agency
11th Floor
421 Montgomery Street
Syracuse, New York 13202**

The Municipal Reference for Agricultural Land Use Planning is intended solely to serve as a reference only. The document does not represent any official position of any one of the entities involved in their development and none of the entities listed make any representation of any warranty, expressed or implied, of any particular result or application of the information provided in the Reference. This document or portions thereof, cannot be reproduced without permission of the author.

Table of Contents

EXECUTIVE SUMMARY.....	4
INTRODUCTION.....	5
What is agriculture?.....	6
What are agricultural activities?.....	8
SOILS.....	9
NEW YORK STATE RIGHT TO FARM LAWS.....	10
Agriculture and Markets Law – Agricultural Districts.....	10
Procedure for Review of Local Ordinances.....	10
Agricultural Data Statement.....	11
Right to Farm.....	11
New York State Public Health Law.....	12
LAND USE PLANNING.....	12
Comprehensive Plans.....	12
Zoning.....	12
Types of Agricultural Zoning.....	13
Agricultural Protection Zoning.....	13
Exclusive and Non-Exclusive Agricultural Zoning.....	15
Area-Based Allowances.....	16
Conservation Design Concept.....	16
Private Property Rights.....	17
DEVELOPMENT RIGHTS.....	17
Sale of Development Rights.....	17
Language of a Conservation Easement.....	18
Transfer of Development Rights.....	19
Types of Transfer of Development Rights.....	20
Ranking Systems for Sending Areas.....	21
Allocation of Development Rights in Receiving Areas.....	22
Restrictions Associated with Transfer of Development Rights.....	22
ENVIRONMENTAL CONSIDERATIONS FOR LAND USE.....	25
Agency Assistance in Protecting the Environment.....	26
Selected Environmental Practices on Local Farms.....	27
Herbicide and Pesticide Applications.....	29
COMPANION ANIMALS.....	30
Fencing.....	30
Manure.....	30
Goats, Sheep and Equine.....	31
Shelter and Sanitation.....	32
Dogs for Deer Control.....	32
FARM MARKETS, AGRI-TOURISM, AGRI-EDUCATION, AGRI-TAINMENT.....	33
Hours of Operation.....	33
Location.....	34
Signage and Buildings.....	34
Pick-Your-Own Markets.....	34
Differences Between Farm Markets and Other Retail Stores.....	35
SEASONAL LABOR HOUSING.....	36
New York State Requirements.....	36
Federal Requirements.....	36
Labor Camp Commissaries.....	37
Off-Farm Seasonal Worker Housing.....	37

Appendix

- A. “Agriculture in a Comprehensive Plan – Proposed Format”
- B. Unified National AFO Strategy Executive Summary
- C. Local Laws and Agricultural Districts: How Do They Relate?
- D. Guidelines for Review of Local Laws Affecting Direct Farm Marketing Activities
- E. Department of State Code Interpretations # 717 – Farmstands
- F. Guidelines for Review of Local Laws Affecting Farm Worker Housing
- G. “Growing Greener, Putting Conservation into Local Codes”

EXECUTIVE SUMMARY

Nationally, 56% of all food produced in the United States is grown on farms located in metropolitan counties like Onondaga County or those counties immediately surrounding city centers. Farm and agri-businesses are important to Onondaga County. According to the NYS Agricultural Statistics Service, there are over 700 farm businesses in Onondaga County that manage over 160,000 acres of land (30% of the County's land mass). Cash sales in 2001 totaled \$84.1 million. Each dollar is turned over approximately 3 times in the local economy before it leaves. That means that production agriculture in Onondaga County contributes over \$252 million to the local economy.

Local municipal leaders are responsible for juggling private property rights, community growth, quality of life issues and environmental protection. The land that is most desirable and economical for food production is also the land that is most attractive for development. Many local residents are two to four generations removed from the farm. In some cases, when they move into more rural areas within the county, issues arise over noise, odors, dust, and slow moving farm vehicles. In other situations, long time residents become engaged in conflicts with their farm neighbors as the farm business changes to remain competitive in a global market or attempts to attract local customers through the production and marketing of a niche product. Direct marketing of farm products is expanding to include agri-tourism, agri-tainment and agri-education.

The Municipal Reference for Agricultural Land Use Planning is a tool for local leaders when confronted with agricultural issues. The document addresses agricultural practices which include:

- Scope of agriculture and agricultural activities
- New York State Agriculture and Markets Law (AML) Article 25AA – Agricultural Districts Law
- Land use planning including zoning, purchase or transfer of development rights
- Environmental regulations
- Herbicide and pesticide applications
- Issues of farm animals used as companion animals including housing, fencing and sanitation
- Farm markets, agri-tourism, agri-tainment, agri-education
- Seasonal Labor

Within the Appendix are references to proposed format for the agricultural component of a comprehensive plan, New York State Department of Agriculture and Market publications and a conservation approach to local codes.

INTRODUCTION

The *Municipal Reference for Agricultural land Use Planning* in Onondaga County is a joint effort between Syracuse-Onondaga County Planning Agency, Cornell Cooperative Extension, Onondaga County, Cornell University and the Onondaga County Agricultural and Farmland Protection Board. The Reference was reviewed by members of the agricultural community who also serve on local town planning boards, the Onondaga County Agricultural and Farmland Protection Board, Syracuse-Onondaga County Planning Agency and New York State Department of Agriculture and Markets Farmland Protection Unit. The purpose of this document is to provide added insight to local governing boards, agencies and private consultants as they wrestle with existing and potential conflicts which may result from residential, commercial and industrial development around existing or new farm and food industry businesses. Current residents in local towns have expressed the desire to preserve the rural character of their towns and the open working landscape utilized by production agriculture but may not necessarily embrace the changes that the farming community may need to make in order to remain financially viable.

Land use regulations, while a responsibility of local municipalities, involves cooperation among all levels of government. Local zoning laws and planning decisions can be affected by county decisions on funding for roads, public water or sewers. Decisions can also be influenced by the regulatory actions of the NYS Department of Transportation (NYSDOT), NYS Department of Environmental Conservation (NYSDEC), NYS Department of Agriculture and Markets (NYSDAM), Onondaga County Department of Transportation (OCDOT), and the Onondaga County Health Department (OCHD). At the federal level, the Environmental Protection Agency (EPA), the Federal Emergency Management Agency (FEMA) and Army Corps of Engineers (ACE), and other federal agencies will have some control as to how land will be used. Some of these relationships will be further explained, later in this document.

The regulation of land use within agricultural areas requires balancing private property rights, community growth, quality of life issues, environmental protection, protection of a critical mass of agricultural farmland and the rights of farmers and agri-business people to engage in accepted agricultural practices. Good planning is necessary to minimize future conflicts that may arise between the farming and the non-farming sector. Land use planning and zoning with regard to agriculture should be flexible. The flexibility to adapt based on the location and the evolution of the farm business to meet the needs of today's society is essential to retain or allow for the expansion of existing farm and food industry businesses.

The economic well being of production agriculture influences local communities throughout Onondaga County. Since 1980 the number of people employed in the agricultural services sector approximates the same number found in what would be considered traditional production agriculture. Recently the value added in agricultural services exceeded the value added in production agriculture.

The size and scope of agriculture and the food system has changed as the industry has evolved over time. Changes in production technology, customer demand, globalization and cost-price relationships are encouraging and rewarding farm, agricultural service and food industries to adopt new business organizations and arrangements. These changes have blurred the traditional lines between farm and non-farm and food and non-food businesses.

One example of the changes occurring within the farm and food system is the use of biotechnology. Traditional farm products and practices are fundamental for the use of this technology, but the resulting products might have a more industrial or medicinal use.

Changes within the companion animal sector are changing the view of production agriculture. Companion animals can be dogs and cats, but may also be horses, goats or sheep and others. These animals may rely on a locally produced supply of grain, hay and straw for their well-being.

What is agriculture?

Production agriculture and the enterprises associated with it are widely divergent. Agriculture can be defined as the land resource that is utilized and the activity associated with the production and processing of plants and animals to make them useful to man. This can include the use of temporary or permanent structures.

- Agriculture can involve: the cultivation and production of field crops, including, but not limited to corn, wheat, oats, rye, dry edible beans, barley, hay, potatoes, soybeans, spelt, hops and flax;
- Fruits such as apples, peaches, pears, plums, grapes, cherries, melons, strawberries, raspberries, blackberries, blueberries, gooseberries, and currants.
- Vegetables that can include but not necessarily be limited to asparagus, beets, broccoli, cabbage, carrots, cauliflower, cucumbers, egg plant, garlic, herbs, green peas, sweet peppers, pumpkins, spinach, squash, sweet corn, tomatoes and watermelon.
- Horticulture products are recognized as an agricultural crop and can include nursery stock, ornamental shrubs, and ornamental trees.
- Nursery and greenhouse crops can include, but not be limited to floriculture, bedding and garden plants, foliage, potted flowering plants and cut flowers. Christmas trees derived from a managed Christmas tree operation whether dug for transplanting or cut from the stump are considered an agricultural crop.
- Livestock and livestock products are traditional agricultural crops and can include dairy and beef cattle, sheep, hogs, goats, horses, poultry, ratities (ostriches, emus, rheas, kiwis) farmed deer, farmed buffalo, fur bearing animals, llamas, alpacas, milk, eggs and furs.
- Other agricultural products include maple syrup, fish, fish products, stockfish and water plants, mushrooms.
- Farm woodland is associated with the cultivation and harvest of timber that can include, but is not necessarily limited to the sale of woodland products such as but not limited to logs, lumber, posts, firewood and mulch.

- With the change in technology and needs of society over time, agriculture could mean the cultivation or production or harvest of woody biomass as a source of bioenergy and plants and animals utilized for the medical needs of society.
- The NYS Department of Agriculture and Markets recognizes the horse industry as being of increasing importance in New York State. Based on the 2000 New York State Equine Survey, Onondaga County is the home of 3,700 horses valued at \$17.76 million. Average annual cost to care for a horse is \$3,112 and average annual capital investment per horse is \$1,076. Fifty-eight percent of horse facilities in New York State are located on farms that were once crop or livestock farms. Nineteen percent of these farms are located on land that was considered non-agricultural in nature. Locally, businesses specialize in the use of horses provide riding lessons, recreational activities and boarding function. Many urban and suburban horse owners prefer to have nearby boarding facilities for the convenience of access to their animals. Commercial horse boarding operations were recently added to the definition of “farm operation” in Agriculture and Markets Law §301(11).

Changes in the characterization of agriculture over time can also mean a business firm engaged in agricultural activities as well as what could be perceived as complementary or non-agricultural activities. When considering how these uses should or should not be regulated, the goals of a municipality have to be considered.

If the goal is to keep an open agricultural landscape in the community, then various alternative businesses that provide income to that property can help keep that land open space by providing additional income to the land owner. Thresholds for other business types associated with the farm can be worked into regulations. These thresholds could allow an agri-business to diversify or modify operations and at the same time provide the local municipality an ability to adjust land-use regulation changes as agri-businesses evolve.

In 2002, the New York State Farmers’ Direct Marketing Association will be working with the Association of Towns of the State of New York to draft guidelines for zoning regulations for farm markets.

What are agricultural activities?

Agricultural activities are production, processing or preparation of plant and animals on the farm and those processes that convert unprocessed or less processed plant and animal product to a more usable form for human benefit.

These activities can include, but are not limited to:

- Transportation, storage and use of equipment for tillage, planting, harvesting and marketing
- Transportation, storage and use of fuel, fertilizers, lime, soil amendments, and legally permitted insecticides, herbicides, and fungicides
- Housing and transportation of animal species
- Storage and transportation of fruits, vegetables and other commodities produced or purchased and associated with the farm business
- Collection, storage, composting, transportation and distribution of animal and poultry waste, farm refuse, fruit and vegetable waste, waste associated with farm and food processing
- Composting or processing of waste of plant materials, animal waste, animal mortalities and anaerobic digestion
- Construction, maintenance and use of appropriate housing for farm workers
- Construction, maintenance and use of structures and facilities associated with the farm business
- Construction, maintenance and use of structures and facilities associated with on farm processing, wholesale packaging and marketing, retail packaging and marketing, direct marketing, value-added marketing, estate wineries, U-pick sales, owner's farmstand, agriculture and natural resource tourism activities, stables
- Construction, maintenance and use of fencing systems and other enclosures
- Establishment, maintenance and use of intensively managed pastures and use of unimproved pastures
- Management of animal and insect pests and noxious weeds that inhibit/reduce production of agricultural crop
- Harvest of timber, firewood, lumber, maple sap, mulch and planting and harvesting of Christmas trees and woody biomass
- Construction, use and maintenance of facilities used in the production of aquaculture and fur products
- Raising, breeding, training and sale of horses as an agricultural enterprise or as a "commercial horse boarding operation"
- Use and management of fallow or idle land, wetlands, farm ponds, farm roads
- Responsibility to maintain and right to use aquifers and public water bodies
- Any other activity connected with the raising of crops, livestock, production of livestock products, included but not limited to field crops, fruits, vegetables, horticultural specialties, livestock and livestock products, furs, maple sap, Christmas trees, aquaculture products, woody bio-mass, composting, manure and waste management and technologies associated with agriculture and medicine

SOILS

According to the Soil and Water Conservation District in Onondaga County and the Onondaga County Agricultural and Farmland Protection Plan, Onondaga County soils have been categorized as some of the best in the state because of glacial sedimentation. Approximately seventy percent of the County's total land area has been classified by the USDA Natural Resources Conservation Service as Important Farmland Soil. There are three basic categories associated with this classification.

Prime Farmland has the best physical (drainage, soil depth, texture) and chemical (fertility, organic matter) characteristics to support the production of plant and animal production that is useful to man. Other influencing factors include growing season, moisture supply and topography.

Unique Farmland produces high yields of specialty crops such as fruits and vegetables. Good soils, location, topography, growing season and moisture characterize this type of farmland. The favorable physical and chemical characteristics that make farmland unique are geographically dependent. Once converted to other uses, they cannot be economically restored to previous conditions.

Farmland of Statewide Importance produces fair to good yields of crops when treated and managed according to sound agricultural practices. This classification can include land feasible for animal grazing and timber harvest. This farmland, under favorable conditions, can have crop yields as high as those of Prime Farmland.

Important Farmland Soils Onondaga County

Important Farmland Soils	Total Acres	Percent of Land Area
Prime Farmland	236,580	47.4
Unique Farmland (muck, orchards, etc.)	2,640	0.5
Additional Farmland of Statewide Importance	<u>110,980</u>	<u>22.2</u>
Total Important Farmland Soils in Onondaga Co.	350,200	70.1
Total Other Soils	<u>149,375</u>	<u>29.9</u>
Total Land Acres	499,572	100.0

Source: USDA Soil Conservation Service, 1987. Map of "Important Farmlands in Onondaga Co."

NEW YORK STATE RIGHT TO FARM LAWS

Onondaga County farmers' right to engage in agricultural activities is defined and protected through two laws. The first is the NYS Agriculture and Markets Law – Article 25AA and the NYS Public Health Law Title 1, Section 1300-c.

Agriculture and Markets Law – Article (AML) 25AA – Agricultural Districts

The New York State Legislature has found and declared that agricultural lands in New York State are in jeopardy of being lost for agricultural purpose. The socio-economic vitality of agriculture in the state is essential to the economic stability and growth of many local communities and the state as a whole. The Constitution of New York State directs the legislature to provide for the protection of agricultural lands. As a result of these findings Article 25AA was enacted.

AML §305-a(1)

Local municipalities in Onondaga County have powers to enact laws to govern their affairs. However, NYS laws impose certain restrictions on local government authority. One such restriction is found in §305-a(1) of the Agriculture and Markets Law, which states that:

“Local governments, when exercising their powers to enact and administer comprehensive plans and local laws, ordinances, rules and regulations, shall exercise these powers in such manner as may realize the policy and goals set forth in this article [*Article 25-AA of the Agriculture and Markets Law*], and shall not unreasonably restrict or regulate farm operations within agricultural districts in contravention of the purposes of this article unless it can be shown that the public health or safety is threatened.”

Local governments, when considering local laws or ordinances to regulate agricultural land or operations within an agricultural district, are not allowed to unreasonably restrict or regulate farm operations, unless it can be shown that public health or safety is threatened. AML §305-a(1) also requires local governments to exercise their powers in a manner to realize the policy and goals of Article 25-AA.

AML §305-a(1); Procedure for Review

Concerns arising from the impact of local ordinances on farm regulations can be addressed more easily when regulations are being drafted rather than after the provisions are in place. Local governments, therefore, are encouraged to contact the Department of Agriculture and Markets in advance of enacting a local law or ordinance, which may restrict farming or farm operations in an agricultural district. Following the inquiry the Department will provide a response to such inquiries. A farmer or other affected party in an agricultural district may also seek the Department's opinion on a proposed or existing law or ordinance without filing a formal complaint.

Detailed information on the review process and how municipalities and farmers may request Department assistance is set forth in the Department's guidance document, *Local Laws and Agricultural Districts: How Do They Relate?* (copy attached in Appendix C). Guidance documents which discuss, generally, Department review of typical farm issues under this law (e.g. nutrient management, farm labor housing, direct farm marketing) can be obtained by contacting the NYS Department of Agriculture and Markets at 1 Winners Circle, Albany, NY 12235, phone (518) 457-2713 *or* the Department's website at www.agmkt.state.ny.us (see "Divisions," "Ag Protection & Development Services").

AML §305-a(2); Agricultural Data Statement

Pursuant to Agriculture and Markets Law (AML) §305-a(2), any application for a special use permit, site plan approval, use variance, or subdivision approval requiring municipal review dependent on Article 16 of Town Law or Article 7 of Village Law, that would occur on property within an agricultural district containing a farm operation or on property within 500' of a farm operation located in an agricultural district, must include an agricultural data statement. The statement describes the proposed project and identifies the owners of land within an agricultural district, which land contains farm operations and is located within 500' of the property upon which the project is proposed. The local board is required to evaluate and consider the statement in its review of the potential impacts of the proposed activity on farm operations within such agricultural district.

AML §308; Right to Farm

The Commissioner of Agriculture and Markets in consultation with the State Advisory Council on Agriculture will issue an opinion upon request from any person as to whether or not a particular agricultural practice is sound. Sound agricultural practices refer to those practices necessary for the on-farm production, preparation and marketing of agricultural commodities. In conducting a review of an agricultural practice, the Commissioner must consult appropriate State agencies and the Advisory Council on Agriculture. The Commissioner is also required to consider whether the agricultural practices are conducted by the farmer as part of his or her participation in the Agricultural Environmental Management (AEM) program as set forth in AML, Article 11-A. The Commissioner may consult as appropriate the USDA Natural Resources Conservation Service (NRCS) and the College of Agriculture and Life Sciences at Cornell University.

At the time the opinion is issued, the Commissioner will publish a notice in the newspaper within the area of the practice. Written notice of the opinion will be sent to the property owner and any adjoining property owners. The opinion of the Commissioner is final, unless within 30 days following the publication, a person affected by the opinion institutes a review of the opinion in the manner provided by Article 78 of the Civil Practice Law and Rules.

Section AML 308(3) provides that an agricultural practice conducted on any land in an agricultural district or on land used in agricultural production subject to an agricultural assessment, which constitutes a sound agricultural practice, pursuant to an opinion issued by the Commissioner, shall not constitute a private nuisance. However, nothing in §308 shall be construed to prohibit an aggrieved person from recovering damages for personal injury or wrongful death.

New York State Public Health Law – Title 1, §1300-c

Agricultural activities, conducted on a farm, as defined by NYS Labor Law § 671, shall not be considered a private nuisance provided that the activities had occurred prior to the surrounding activities, have not increased substantially in magnitude or intensity and have not been determined by the commissioner or local health officials to be the cause of conditions dangerous to life or health.

LAND USE PLANNING

Comprehensive Plans

Comprehensive plans articulate the long-term vision of the county or a town. They outline government objectives and guidelines for future development within a specified locality and the proposed future land uses that can include agriculture, residences, retail, institutional, industry and recreation. Comprehensive plans can create a commitment to production agriculture through protecting the natural resources necessary for food production balanced with identified areas that would better support development.

See Appendix A for the example of an agricultural component of a Comprehensive Plan.

Zoning

Land use regulations such as zoning and sub-division regulations put the comprehensive plan into action. Zoning regulations should be based on the community vision that has been expressed in the comprehensive plan. Zoning regulations should encourage specified types of growth in designated areas and minimize certain types of development in other areas based on the future land-use map of the comprehensive plan. The comprehensive plan provides the foundation for the zoning ordinance.

Zoning regulations establish uses, standards and densities for development. Zoning ordinances can have a significant affect on agriculture as minimum lot sizes and use regulations can directly impact the development of particular tracts of land. In some towns land is zoned for both agricultural and residential, which can allow the conversion of agricultural land to residential use without any further zoning action.

Zoning can be used as a form of farmland protection by maintaining a lower density of development in areas with natural resources that best support production agriculture. Fewer neighbors may mean less conflict about production agriculture practices. Local governments can reduce the density of development in several ways: by increasing the minimum lot size, through a specified number of smaller lots for a given acreage, through increased lot frontage requirements or through mandating clustering of residences in certain portions of a total acreage.

Large residential lots intermingled with cropland will reduce the utility of the remaining vacant land for agricultural production that can lead to reversion of open cropland to abandoned agricultural land.

Zoning Can:

- Help prevent residential development from moving into agricultural areas in an unplanned fashion
- Maintain the attractiveness of the community by protecting open space and natural terrain features
- Protect individual property owners from harmful or undesirable uses of adjacent property
- Help put into effect plans for future development in the “right” places and coordinate with the location of public services to “phase in” development over time
- Allow for important community decisions on growth and development to be made within the community

Zoning Cannot:

- Interfere with farming decisions such as agricultural practices
- Easily change or correct land uses already in existence
- Assure that land zoned in a specific way will permanently stay in that use

Types of Agricultural Zoning

Zoning regulations should be reasonable, reflecting current and future land uses. They must achieve a public purpose in protecting the public health, safety and welfare and minimizing conflicts between neighbors. They should be non-arbitrary, based on sound reasons and consistent. They must be non-exclusionary (discriminatory) and must not result in the taking of private property.

The following zoning types have been used in different parts of the United States. The language in some of the following zoning types can be considered very restrictive.

Agricultural Protection Zoning (APZ)

Agricultural Protection Zoning supports and protects farming by stabilizing the agricultural land base based on soil type where production agriculture is the preferred land use. Non-farm businesses and land uses are discouraged, although some such uses are permitted as long as they do not conflict with farming. This zoning regulation can also guide official decisions on permit requests and petitions for zoning changes. The most restrictive ordinances prohibit any uses that might be deemed incompatible with commercial farming.

Most zoning ordinances recommend minimum lot sizes usually based on waste water disposal system requirements, desired density or availability of public infrastructure. With APZ, the goal is to minimize the land taken from agricultural production, which results in the stipulation of a maximum lot size.

Most agricultural zoning ordinances are not completely successful in preventing farmer, non-farmer conflicts. These conflicts can be especially problematic if they result in lawsuits. APZ ordinances often contain provisions to limit such conflicts.

Benefits of Agricultural Protection Zoning (APZ)

- APZ is a cost-effective way to protect large areas of agricultural land.
- By separating farms from non-agricultural land uses, APZ reduces the likelihood of conflicts between farmers and non-farming neighbors.
- APZ helps prevent suburban sprawl and reduces infrastructure costs.
- Compared to Purchase of or Transfer of Development Rights, APZ can be implemented relatively quickly.
- APZ is easy to explain to the public because most landowners are familiar with zoning.
- APZ is flexible. If economic conditions change, the zoning can be modified as necessary.

Drawbacks to Agricultural Protection Zoning (APZ)

- APZ is not permanent. Rezoning or a change in a comprehensive plan can open up large areas of agricultural land for development.
- APZ may reduce land values to agricultural values only that could decrease farmers' equity in land.
- Farmers often wish to be able to sell land to provide extra income, in essence defeating the purpose of APZ

Issues To Address in Developing an APZ Ordinance

- Do the comprehensive plan and local policies support APZ?
- Is the purpose of the ordinance clearly stated and do the regulations correspond to the stated goal?
- What land is included in the APZ zone? Is it the best farmland?
- Does the ordinance adequately restrict non-farm development and encourage commercial farming?
- Which non-farm uses are prohibited? Are agriculturally related businesses, such as processing, marketing and sales of farm equipment and services permitted?
- How much non-farm development is allowed in agricultural zones?
- Does the ordinance prevent or minimize conflicts between farmers and non-farmers?
- Does the ordinance provide clear criteria for rezoning that protect productive agricultural land?
- How will the ordinance be enforced?

Exclusive Agricultural Zoning

Exclusive agricultural zoning limits residential construction to farm owners and their employees and family members directly involved in the farm business. This zoning prohibits all uses and activities unnecessary for intensive commercial farming operations (agriculturally related recreation such as horse boarding, training and riding facilities may also be prohibited). Exclusive Agricultural Zoning is rarely used as risks the “takings” of property rights without compensation.

General agricultural zoning allows for commercial farming activities, horse boarding, training and riding facilities, and hobby farms as well as limited residential development and some public services such as churches or parks.

Rural settlement zoning is designed to accommodate most of the demand for non-farm rural residences. Commercial, intensive farming activities are prohibited in rural settlement areas.

Non-exclusive Agricultural Protection Zoning

Non-exclusive agriculture zoning places limitations on the number of residences that can be constructed in an agricultural zone. Several methodologies exist to determine the amount of development. When determining densities, care should be given that regulations do not result in large lots, “too small to farm and too big to mow.”

Large Minimum Lot Size APZ sets a minimum lot size for each residence (possibly 35 to 40 to 160 Ac., etc.). Sub-division in this manner can result in parcels that are too small to operate as a viable farm operation and can even promote sprawl. Owners of large lots are not required to lease property to farmers for agricultural production. If large lot zoning is to be used as a farmland protection tool, then site plan review is necessary to ensure that the location of new construction minimizes the impact on agricultural practices.

Area-Based Allowance APZ uses a formula to establish a permitted number of dwelling units per parcel. Development is directed to smaller parcels of land, leaving large tracts of land intact for agricultural purposes. The number of dwellings permitted by these ordinances depends on the size of the property in question. The ordinance could require that construction be sited on less fertile soils in locations that minimize impact on farming operations.

Area-Based Allowances – Two Types

Fixed Area Based Zoning allows one dwelling for a specified number of acres. For example, one non-farm lot would be allowed for fifty acres, with the stipulation that the non-farm lot taken from a parent lot would have a maximum size of one to two acres.

Sliding Scale Zoning is based on the rationale that higher densities should be allowed on smaller tracts because they are more difficult to farm and may have effectively passed out of agriculture into the residential land market. Smaller parent parcels will have a higher density than larger tracts that are being sub-divided based on a predetermined scale. Maximum lot sizes are predetermined and non-farm development is directed to less productive land. Higher densities reflect the need of municipalities to permit some economically beneficial use of land when farming is no longer viable.

Sliding Scale Zoning – Sample Density (example only)

Area of Parcel in Ac.	No. of Lots Permitted
1 – 9.99	2 - 5
10 –19.99	3 - 6
20 – 39.99	4 - 7
40 – 79.99	5 - 8
80 – 159.99	6 -9
160 or more	7 –10 or 1 per ?? Ac.

Percent of Land Agricultural Protective Zoning specifies the percent of parcel area that can be devoted to development rather than number of dwellings that can be developed; lot size within the allotted percentage is specified.

Cluster Zoning is a form of land use planning that allows residences to be clustered on small lots (smaller than what would normally be allowed) on a portion of a larger parcel leaving the remainder of the parcel as undeveloped. This sort of arrangement can keep land open for agricultural use, but is not designed to support intensive agricultural production. Cluster development may be more suitable near less intensive farming operations. If cluster development is located near commercial farms, arrangements (such as a conflict resolution advisory committee) should be considered to minimize the conflict that could arise between the farming and non-farming sector.

Conservation Design Concept

The Conservation Design Concept rearranges the development on a parcel as it is being planned, so that possibly one-half or more of the parcel can remain as open space for farmland, wildlife habitat or buffers for water amenities. This concept requires changes in the comprehensive plan as well as the zoning ordinance. The remaining open land can be protected with a conservation easement so that it will not be developed. Conservation design is different from cluster development in that it retains a higher percentage of quality open space that can be integrated into a community-wide system of open space.

See Appendix G for “Growing Greener, Putting Conservation into Local Codes”

Rights Associated with Property

Private Property Rights

Owners of private property are entitled to certain rights (known as “the bundle of rights”) associated with the parcel. Some of these rights include water, mineral rights, right to sell, right to mortgage, right to give away, right to lease the property and the right to develop or construct a building on the property. Each of these rights can be separated from the property, valued, donated or sold.

DEVELOPMENT RIGHTS

If the property owner sells the development rights to a local or state government or private land trust, he/she is monetarily reimbursed for giving up the right to develop that property. The property owner retains all the other rights and responsibilities associated with land ownership including the liability for any property taxes. Despite the government or land trust’s investment in the land, the property remains private and public access is not allowed without the property owner’s permission.

A conservation easement is the legal document created and filed with the County Clerk. The document states that the development rights to the described parcel of property have been extinguished. The conservation easement is considered a deed encumbrance. Another legal document created in the process of selling the development rights is the monitoring agreement. This contract states that the property will be appropriately managed using good land stewardship techniques. It will also discuss how the property will be monitored to make sure the property owner meets the contractual arrangements stated in the conservation easement. The conservation easement cannot guarantee that the property will be farmed.

The Onondaga County Farmland Protection Plan and Andres Duany’s Settlement Plan both note the possibility of selling the development rights from agricultural property as a means to maintain vital productive agricultural land and open viewscapes. Since 1997, the New York State Department of Agriculture and Markets has issued a Request for Proposals (RFP) for the Purchase of Development Rights (PDR) of agricultural land. Several farms in Onondaga County have been selected for funding through this program. Because of the cost associated with the Purchase of Development Rights, it maybe difficult to protect a critical mass of agricultural property. But by using a variety of agricultural land use vehicles such as agricultural land tax exemption (10 acres or more and \$10,000 gross farm sales or less than 10 acres with \$50,000 gross farm sales) and some form of agricultural zoning in conjunction with purchase of development rights, sprawl maybe contained and farmland protected.

Sale of Development Rights

Development rights can be managed in several ways. The property owner can extinguish the development rights from the property through the sale or donation or lease of those rights to a municipality or land conservancy organization. The sale of development rights is very expensive. To date, in Onondaga County these rights have been removed in perpetuity. In some cases, property owners, land trusts and government agencies can sell or lease the development rights for a specified time, rather than in perpetuity.

Most contracts to purchase the development rights (PDR) have some sort of escape clause that allows the landowner under extreme cases to buy back the development right. The burden is on the landowner to prove to a court of law that the conditions around the property have changed so that the easement purpose (supporting agricultural viability and protecting productive farmland) cannot be met. If this is proved, then the landowner must refund the development rights portion of the farm's value and the landowner would gain full title to the property.

Language of a Conservation Easement

The language usually included in a conservation easement:

- Limits any uses that would reduce the agricultural value and productivity of the soil.
- Extinguishes all non-farm development rights
- Permits the construction of buildings associated with the agricultural enterprise including farm worker housing
- Complements the right-to-farm provisions in Agricultural Districts Law
- Does not require public access
- Retains full ownership of the farm to the landowner
- Property encumbered with a conservation easement may or may not be sub-divided based on the terms of the easement. The purpose of PDR is to keep designated land in agricultural production; sub-dividing into smaller parcels may make the land unsuitable for commercial production agriculture.
- Land encumbered with a conservation easement remains on the tax roles.

Benefits of Purchase of Development Rights (PDR)

- PDR protects farmland permanently, regardless of who owns it
- Participation by landowners is voluntary
- PDR programs can be implemented by town, county, or state governments as well as private organizations
- PDR programs protect agriculturally important lands and may also result in protecting ecologically sensitive areas as well
- PDR can be used as a tool to minimize sprawl and curb infrastructure investment

Disadvantages to PDR

- PDR is expensive
- PDR is time consuming
- Monitoring and enforcing easements requires a continuing investment of time and resources

Transfer of Development Rights

Transfer of development rights changes the way development occurs within a community. It can create a greater certainty about how development will occur because an effectively designed plan will reflect the concerns of public officials and citizens, not just landowners in determining where and to what extent development will occur. Professional experience and participation by public officials, developers, landowners and local citizens is essential.

Transfer of development rights (TDR) is a tool used to preserve property for such uses as agricultural production, open space or historic buildings. TDR separates the development right from one piece of property and transfers, by sale, the development right to another piece of property. **This transfer allows development to occur in greater density in the receiving parcel than what normal zoning might allow. Comprehensive planning is important to identify and map those areas where development should be limited (the sending district) as well as those areas that are capable of supporting higher density development (the receiving district).** The development rights are documented through a conservation easement.

Transfer of development rights is different from purchase of development rights, as the transfer usually occurs in the private real estate market between two property owners rather than a property owner and a government entity. Government funds are not used in this process, but the cost of municipal infrastructure must be considered if public water or sewers become necessary to support higher density sub-divisions i.e. high-density sub-divisions. Municipalities may choose to use government funds if they decide to “bank” the transferred development rights and sell them to developers for future development projects.

The area receiving the development rights will be built at higher densities. As a result those areas need to have a higher concentration of infrastructure such as roads, public water and/or sewers, schools and fire protection. Local governments may have to determine how the cost of this new or improved infrastructure should be financed.

Zoning in the receiving area must create an incentive for developers to buy development rights. If zoning allows for high-density development, developers will build to maximum densities without considering transfer of development rights. Allowable densities should be lower than the market will bear. It is important that the receiving area be large enough to create demand for the development rights.

Types of Transfer of Development Rights

Transfer of development rights can occur in several ways:

1. Same owner, same parcel transfer (cluster development)

Zoning ordinances can be created to group houses in one section of a parcel and at a higher density than what would normally be allowed. The land saved as open space would be restricted with an agricultural conservation easement. Clustering would allow developers some flexibility to locate residences away from active farm fields, flood plains, marshy areas and steep slopes and on land that is still suitable for housing. To minimize conflict between residential owners and farmers, these clusters should be located near farm businesses that utilize less intensive production practices.

2. Transfer of development rights between adjacent properties in the same ownership

This alternative allows a landowner to transfer development rights from one parcel to an adjoining parcel in the same ownership.

3. Transfer of development rights between non-adjacent tracts in the same ownership

An owner of a tract of land in a rural area would transfer the development potential of that parcel to a parcel of land she/he also owns closer to a village, urban, or hamlet settlement. This situation allows transfers between non-contiguous parcels of property.

4. Transfer of development rights to non-adjacent tracts in different ownership in the same local jurisdiction

A property owner of one parcel may transfer (sell) the development rights of the parcel to a parcel owned by another person within the same municipality. The owner of the receiving parcel compensates the owner of the sending parcel for the value of the development rights. These rights can also be sold to a government entity that may decide to sell them to a developer.

5. Transfer of development rights from parcels in a designated rural “sending area” to non-adjacent tracts in different ownership in a designated “receiving area” in the same municipality.

The person receiving the development right compensates the person transferring the development right from his/her property. The local municipality has pre-designated which areas of the town will send the development rights and which areas of the town will receive development rights.

6. Transfer of development rights from parcels in a designated rural “sending area” to non-adjacent tracts in different ownership in a designated “receiving area” across local municipal boundaries. This type of TDR is the most complex of all of the above-mentioned programs, requiring cooperation between different levels of government based on comprehensive regional planning.

In municipalities where development rights involve adjacent parcels, there are no designated receiving areas. The denser development sited for a receiving area is less suitable for farming than the sending site. The purpose of this type of TDR is not to limit development, but to promote protection of the most productive agricultural land.

However, the purpose of most TDR programs is to transfer development out of agricultural areas into more suitable areas, i.e. receiving areas near a village with existing roads, water, sewer with nearby schools and police and fire protection that can support higher densities.

To be successful, zoning regulations in higher density areas must create incentives for developers to purchase develop rights. If existing zoning laws allow high-density development, then developers will build to the maximum densities without purchasing additional development rights. Allowable densities should be lower than the market will bear. It is important that the receiving area be large enough to create demand for development rights.

Transfer of development rights is usually contemplated in comprehensive planning. Communities identify where the best farmland is located and where farming is deemed economically viable. Criteria to determine sending areas can include soil quality, slope, population density, land values and the existence of an infrastructure to support commercial agriculture. In other cases, the concept of TDR maybe addressed in comprehensive planning, but rather than identifying specific areas for TDR, individual parcels must meet predetermined criteria.

Ranking Systems for Sending Areas

Soil types within a pre-determined minimum lot size could be used as a means of targeting areas from which development rights could be severed and then transferred to another area. The criteria could be based on minimum amounts of Class I or Class II soils, based on Natural Resource Conservation Soil Types. More general criteria can include a policy based on sending sites that contain land with prime, unique or other productive soil with demonstrated productive capability, preservation of microclimates that support specific agricultural crops, or taking away the development potential within an area that depends on localized, limited groundwater resources.

Another tool used to rank agricultural land for its development potential is Land Evaluation and Site Assessment (LESA). The United States Department of Agriculture, Natural Resource Conservation Service through the Farmland Protection Policy Act of 1981 developed LESA. This legislation requires federal agencies to use LESA to minimize the federal government program contribution to unnecessary and irreversible farmland conversion as well as encourage compatibility with state, local and private farmland protection efforts.

LESA evaluates and assesses agricultural land and its viability for farming. The land evaluation component (LE) rates and groups the soil for agricultural use. Site Assessment (SA) variables measure agricultural productivity, development pressure and compatible land uses. The land evaluation (LE) and site assessment (SA) variables are represented by numeric ratings and are added together to derive an over-all score.

The Onondaga County Council of Environmental Health created a ranking system as another tool to evaluate agricultural land based on soil type, parcel size, farm business viability and development pressure in order to rank multiple proposals for farmland protection.

Global Positioning Systems (through mapping) is a decision making tool that can be utilized to evaluate spatial relationships and the suitability of the land resource receiving the transferred development rights.

It is important to understand that in identifying sending parcels, the more parcels available for TDR, the more development rights will be available for use in receiving areas. Equilibrium needs to be reached between sending areas and receiving areas. This equilibrium could stretch across municipal boundaries.

Allocation of Development Rights in Receiving Areas

As sending areas are designated; so should be receiving areas. The owner of a property in the receiving area will receive the development rights transferred from the sending area.

1. Gross acreage/zoning allocation is most commonly used. This system is based on the number of residences that could have been built on the sending property which are transferred to the receiving property based on current zoning regulations, a one for one exchange. In other situations, for example, one development right is available per acre, but the receiving owner must acquire five development rights to build one residence.
2. Land characteristics and physical suitability for development. This system is based on the number of development credits that a landowner would receive in relationship to the environmental significance and development potential of the conserved land. For example, sending owners of land that had more wetlands would receive less development credits for that parcel than a landowner with upland, which would be more suitable for development.
3. Cash value based on appraisal. Sending landowners are required to obtain an appraisal from a certified real estate appraiser of the total value of their development rights. The total value is divided by an appropriate number (average value of a residential lot) to determine the number of development credits from the sending parcel. The actual sale price of the development credits is negotiated between buyer and seller.

Restrictions Associated with Transfer of Development Rights (TDR)

An agricultural conservation easement is usually placed on the property after the development rights have been removed. A decision should be made to determine if the sending parcel has the right to be sub-divided, as small parcels are not conducive to production agricultural practices. In some situations, a parcel or two (based on minimum lot zoning requirements) maybe reserved for one house lot for future residences of the farm family.

Agricultural Protection Zoning can be used in conjunction with TDR to stabilize land uses in sending areas and to increase farmers' incentives to sell development rights.

Benefits of Transfer of Development Rights

- TDR protects farmland permanently, regardless of who owns it.
- Landowners are not required to sell development rights, so participation is voluntary.
- TDR promotes orderly growth by concentrating development in areas with adequate public services or areas targeted for additional infrastructure.
- TDR is a market-driven technique. Private parties pay to protect farmland and more land is protected when development pressure is high.
- TDR programs can be designed creatively to accomplish a variety of community goals in addition to farmland protection, including the protection of environmentally sensitive areas and the development of compact urban areas.
- TDR is a land use method that would minimize the depreciation of farmland value within strict Agricultural Protective Zoning.

Concerns about Transfer of Development Rights

- TDR programs are complicated and require a significant investment of time and staff resources to implement.
- TDR is an unfamiliar concept that will require extensive public education to local citizens.
- The pace of transactions is dependent on the private real estate market, which can be unpredictable. When the real estate market is depressed, few rights will be sold and little farmland will be protected.
- A publicly administered TDR “bank” can be formed to purchase the development rights when the real estate market is slow. Start-up funding for the TDR bank can come from tax revenues or proceeds from bond issues. Funds are replenished by selling the development rights to developers.

TDR is “not a no-growth option.” TDR programs depend on steady growth. Demand for medium to high-density housing must be sufficient in relation to the supply of development rights in the receiving area. If growth is too slow, or demand for new housing is limited to low-density, single-family dwellings, the price for development rights will be low and few transactions will occur. One solution is to target a relatively small area for protection, so that only a limited supply of development rights will be generated.

Political will is necessary to implement and maintain appropriate zoning in sending and receiving areas. Limiting development in the sending area creates a strong incentive for farmers to sell development rights, rather than developing their land. Comprehensive down zoning or restrictions on development are critical considerations in a TDR program. In some instances a municipality does not have to rely on development restrictions in the sending area; instead the municipality may refuse to rezone land in a receiving area. In cases like this, the developer must purchase rights in order to increase densities in desirable residential neighborhoods.

A successful TDR program relies on a municipal planning department that has the knowledge, time and resources to administer a complex program. TDR programs are more cost effective than purchase of development rights, but they are not free. Explanation of TDR to landowners and developers, keeping track of transfers and monitoring easements requires substantial staff resources.

A final impediment to the success of a TDR program is failure to understand that TDR is different from other government programs and ordinances to protect farmland. Purchases of development rights and agricultural protective zoning have the ability to slow residential growth. TDR thrives on growth. The ultimate purpose of TDR is to move new development to targeted areas within the community rather than stop development. Implementing a TDR program requires residents, planners and local government officials to support higher-density development in receiving areas and to work with developers to facilitate the purchase and use of development rights.

ENVIRONMENTAL CONSIDERATIONS FOR LAND USE

Production Agriculture and the Environment

Farmers depend on the soil for their livelihood and take many steps to improve environmental conditions on their farms. Regulations in place by the NYS Department of Environmental Conservation govern pesticide use, require applicators to pass a test and attend continuing education courses. The USDA Farm Services Agency also places regulations on farms, specifically on land classified as highly erodible. All participating farms in USDA programs must have a soil management plan in place to reduce erosion on highly erodible fields. Plans can be as simple as changing crop rotations or adopting specific practices proven to reduce erosion.

A recent NYS Department of Environmental Conservation (DEC) General Permit affects dairy and livestock farms, which exceed certain animal unit thresholds. These operations are referred to as Concentrated Animal Feeding Operations or CAFOs. One animal unit is equivalent to 1,000 pounds. The State's CAFO General Permit establishes three basic tiers for compliance. All Animal Feeding Operations (AFOs) with 1,000 units or more are CAFOs. AFOs with greater than 300 animal units and less than 1,000 animal units that discharge to surface waters either through a man-made ditch, flushing system, or other similar man made device or directly into surface waters are CAFOs. An AFO may also be designated as a CAFO if it is found to be a significant contributor of pollution to surface waters. AFOs of less than 300 animal units are not CAFOs unless the DEC conducts an on site inspection and determines that they are to be regulated under the permit program. CAFO farms are required to have a plan prepared according to the Natural Resource Conservation Service (NRCS) Conservation Practice "Waste Management System No. 312-NY" for the proper management of liquid and solid waste as a condition of the DEC CAFO General Permit. The plan will include other NRCS practice standards needed to address resource concerns, such as "Waste Storage Facility NY313" and "Nutrient Management (Supplement) NY590."

After the plan is developed, farms must fully implement it within five years (sixty months) of the date of coverage under the permit (generally, no later than December 31, 2004 for existing or expanded facilities). Planning is costly for farms, and large farms can expect to spend in excess of \$30,000 merely in plan development.

The desired outcome of the United States Department of Agriculture and the Environmental Protection Agency is that all Animal Feeding Operations (AFO) will have developed and will be implementing their site specific Concentrated Nutrient Management Plan by 2009.

Agency Assistance in Protecting the Environment

Cornell Cooperative Extension (CCE) of Onondaga County, the Onondaga County Soil and Water Conservation District (SWCD), and USDA Natural Resources Conservation Service (NRCS), and Farm Services Agency (FSA), all assist farmers in protecting the environment. Each entity has a unique role in helping producers. CCE of Onondaga County provides educational programming on pesticide applicator training, comprehensive nutrient management plan development, and also trains agribusiness to provide the latest information necessary to more effectively work with producers.

The Onondaga County Soil and Water Conservation District (SWCD) provides technical assistance for farmers who want to improve environmental conditions. They also serve as a neutral party if a regulatory agency receives a complaint against a farm operation relating to farming practices. A meeting between the farmer and SWCD staff identifies measures for remediation, if a concern proves to be legitimate. There are an insufficient number of regulatory agency personnel to investigate every concern about agriculture. The Onondaga County Soil and Water Conservation District also manages many agricultural watershed protection efforts such as the Skaneateles Lake Watershed Agricultural Program, as well as those in Otisco and Onondaga Lakes.

The United States Department of Agriculture Natural Resources Conservation Service assists Soil and Water Conservation Districts in their efforts to implement conservation practices on farmland. Their staff develops plans and constructs practices that improve farm environmental conditions for those farms that apply for and receive federal cost sharing. The Natural Resources Conservation Service has a set of national standards they follow for environmental planning. Environmental practices are also standardized, which results in consistent quality on all farms adopting conservation plans and practices.

The United States Department of Agriculture Farm Services Agency performs many functions. It stores vital farm records necessary for developing farm environmental plans. The FSA also distributes any financial incentives approved for producers who adopt environmentally friendly practices on their farms. They also administer specific programs designed to improve the environment.

Existing Programs and Efforts

There are numerous environmental programs targeted toward improving farmland. Some include financial incentives and others do not. Most conservation programs are administered through the Natural Resources Conservation Service and Onondaga County Soil and Water District in conjunction with the Farm Services Agency. Programs change as legislation is reviewed, passed and funded by Congress. Two of the more recent conservation programs are the Wetlands Reserve Program (WRP) and the Wildlife Habitat Incentives Program (WHIP).

The Wetlands Reserve Program (WRP) is designed to restore wetlands, and is voluntary. Landowners can choose to establish long-term conservation easements for 30 years, a permanent easement, or opt for a restoration cost-share agreement involving no easement. Government funding covers the costs of restoring wetlands and also provides a payment for the agricultural value of the land to the property owner.

The Wildlife Habitat Incentives Program (WHIP) offers financial incentives for landowners to develop habitat for wildlife on private lands. To qualify, participants must implement a wildlife habitat development plan that lasts a minimum of ten years. All wildlife habitat development practices are cost shared by the government.

A familiar conservation program is the Conservation Reserve Program (CRP). This program encourages farmers to protect environmentally sensitive cropland by converting it to vegetative cover. Environmental benefits include reduced sedimentation in streams and lakes, decreased erosion, and enhanced wildlife habitat. Farmers are compensated by an annual rental payment in return for a multi-year contract.

A recent Federal program is the Environmental Quality Incentives Program (EQIP), which provides financial, technical and educational assistance to producers who wish to adopt a comprehensive environmental plan for their farms. Contracts range from five to ten years and include incentives to adopt best management practices and/or install land management practices.

Agricultural Environmental Management (AEM) is a statewide initiative that combines efforts of public agencies and the private sector to improve farm environmental conditions through a voluntary evaluation process. Farmers fill out work sheets to identify areas of concern on their farm and take action to remedy concerns. New York State may provide cost sharing assistance for installing practices to reduce such concerns through the Agricultural Nonpoint Source Abatement and Control grant program administered by the NYS Soil and Water Conservation Committee. In the year 2000, \$4.5 million was earmarked from the Environmental Protection Fund for this effort.

Selected Environmental Practices on Local Farms

Scenic views throughout the county provide evidence of environmental practices installed on the landscape. Flying over the county allows such practices as contour farming and strip cropping to be seen. Contour farming involves working the soil along a natural contour, instead of against it. Strip cropping breaks up fields by alternating crops in strips to reduce erosion.

Many farmers have already implemented nutrient management plans to test soils and balance nutrient applications with crop needs. Some have taken the process further by implementing Comprehensive Nutrient Management Plans that take all environmental resources into account, including soil and water.

Another practice on many farms is installing buffers near watercourses. These buffers are typically grass and are installed based on Natural Resources Conservation Service standards and specifications. Buffers can reduce sedimentation that enters streams and they are also effective in trapping nutrients that might run off if shallow overland flow exits in the buffer.

Manure management is based on time of year, topography and soil type. Some soil types and topography allow for daily spreading. Topography and soil types in other situations require some type of manure storage. Some animal-based farming operations might cooperate with non-animal based farm operations to utilize the nutrients found in manure.

Storing manure to spread at optimal times is a practice more farms are implementing. If managed properly, manure storage allows producers flexibility in their nutrient management plans. Applying manure in amounts necessary for crop growth at the appropriate time reduces the likelihood that excess nutrients will negatively affect the environment. Despite the advantages of manure storage, there is a negative impact. Stored manure undergoes an incomplete anaerobic process, resulting in increased odors. Many rural residents find this odor offensive and do not hesitate to voice their concerns.

Storing manure and spreading it over many fields can create brief odor events, but ultimately this practice reduces the risk of water pollution and helps farmland remain in an area. Following a concentrated nutrient management plan (CNMP) to protect the environment will encourage the use of manure over a larger land base to reduce chemical fertilizers. This will also create conflicts with neighbors unless they understand and accept the idea that this is being done to protect water quality.

Positive and Negative Implications

Voluntary agricultural land use policies have resulted in greater acceptance of environmental planning efforts among the farming community. Agricultural Environmental Management is an example of a voluntary environmental protection program that has expanded into every county in New York State. Working with farmers to implement changes that positively impact the environment can yield greater returns than enforcing regulations. The regulatory approach would require significantly more personnel and revenue to enforce new environmental rules.

Mandatory environmental planning for farms affected by Concentrated Animal Feeding Operation regulation will improve environmental conditions. However, many farms will incur a large expense to develop an environmental plan. Some farms may go out of business when faced with expensive implementation costs to comply with federal standards for runoff. Current standards stipulate that a CAFO sized farmstead must be able to control the runoff of a 25-year, 24-hour storm event.

Farmers are more likely to participate in voluntary programs that have cost sharing to help offset the cost of developing and implementing an environmental plan. The Skaneateles Lake Watershed and Otisco Lake Watershed have a significant level of funding available for producers to implement environmental, or Best Management Practices. In most cases, the availability of grant funding is the deciding factor whether to install Best Management Practices on farms.

Each farm has a unique set of environmental concerns, as well as solutions. Broad based regulations do not take individual factors into account. A farm based assessment, such as the Agricultural Environmental Management program allows farmers to develop a plan suitable for their specific operation.

Community Response to Regulations

Farmers in the Skaneateles Lake Watershed were faced with broad-based watershed rules and regulations that had to be implemented for the City of Syracuse to obtain a filtration avoidance waiver for its water supply. The other alternative was developing a voluntary watershed protection program funded by the City of Syracuse. A group of watershed farmers formed an ad hoc task force to examine rules and regulations and develop a plan to respond.

Developing an alternative to imposed rules and regulations resulted in over 96 percent of all farms participating in a voluntary program to improve farm environmental conditions. A primary program selling point was that program guidelines were developed by a group of affected farmers in cooperation with the City of Syracuse. Since all parties affected by regulations had roles in developing guidelines, the resulting program was effective in reducing non point source pollution and has become a national model to showcase methods in which government and private property owners can successfully work together.

Herbicide and Pesticide Applications

Pesticide application for the production of agricultural products is considered to be an agricultural practice by the NYS Department of Agriculture and Markets and is regulated by the NYS Department of Environmental Conservation.

The Law

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) regulates chemical application nationally. Federal agencies involved in these regulations include the United States Department of Agriculture, the Environmental Protection Agency and the Food and Drug Administration.

In addition each state has pesticide laws that govern pesticide sale, use, disposal, storage and transportation of chemicals. The NYS Department of Environmental Conservation is responsible for administration and enforcement of pesticide laws. Article 33 of the Environmental Conservation Law provides the framework for the distribution, sale, use and transportation of pesticides in New York State. Pesticide regulations are also found in 6 New York Code of Rules and Regulations (6 NYCRR) Parts 320-329. Language within these sections includes commercial and private pesticide applicator certification requirements and pesticide business registration as well as pesticide product restrictions.

Education

Most people applying farm pesticides in New York State are required to attend education seminars, review the Pesticide Applicator Training Manual and pass a test before they receive an applicator license. The applicator license is either for private use or for commercial use. Each permit holder must attend continuing education classes in order to maintain official certification status. In some situations, other unlicensed people may actually perform the task of applying pesticides, but must be directly supervised by a licensed individual.

COMPANION ANIMALS

In some cases property owners choose to own and house on their property animals such as horses, mules, donkeys, cows, sheep, pigs, goats, llamas, emus, and rabbits etc. These animals are not necessarily associated with a conventional agricultural enterprise, but are more closely associated with a lifestyle choice, hobby, animal youth or school project, or possibly classified as a pet.

Large animals such as cows and horses and even smaller animals such as sheep and goats require adequate space for their health and well-being. When evaluating property that will contain a residence as well as accommodations for an animal, minimum two to five acre lots should be considered. Issues do arise regarding manure, dust, and noise. Some zoning ordinances regulate the type of animals that may be kept as pets and often set restrictions on the number of animals; minimum lot size for horses or larger animals.

Fencing

Fencing can be of many designs and types. The goal of fencing is to keep the companion animal inside of the fence perimeter and to keep dogs or other predatory type animals outside of the fencing perimeter. Some fences may be electric. Signs indicating an electrified fence should be posted along residential/agricultural boundaries to minimize farm/non-farm conflict. An electric fence needs to be properly installed and grounded to prevent the risk of death or fire due to lightning strike.

Manure

Animal waste tends to be a problem, particularly in more dense neighborhoods. For small animals or for a small number of animals composting is one method to get rid of manure. If the compost pile is managed correctly, minimal odor will be created as it is turned. The composted manure can then be spread on the pasture area, incorporated into the property owner's landscape or utilized by nearby neighbors for their gardens.

In the case of small animals such as goats or sheep, the actual amount of manure produced by each animal individually is no more than that of a large dog. Commercial waste management companies could handle a small volume if it is picked up once per week. If the volume is significantly larger, then arrangements should be made with a local farmer or someone with the capacity to handle a large volume of animal waste. The waste should be removed one to four times each month. If necessary, the pile should be placed in an area away from nearby residences, out of the prevailing winds, away from the animals and away from any area that would be compromised by potential run off and away from the animal.

Goats and Sheep

Shelter recommendations call for 12 sq. ft. to 15 sq. ft. per animal in a shed that is a minimum of 3ft. high in the back and 44 inches to 6 ft. high in front. If the goat is to be housed in the shed for the entire winter, then the living area should be a minimum of 25 sq. ft.

Exercise pens should provide a minimum of 25 sq. ft. This area can be surrounded by a variety of fencing designs. One design is a 16 sq. ft. pen that uses 4 steel fence posts, 6 feet high. The posts are driven 1.5' into the ground. Four, 16' livestock panels are used for the sides. All the panels are wired to the posts except for one, which uses snaps and acts as the gate.

Woven wire fence 42" or 48" high is another acceptable fence type. The ideal woven wire fence has a smaller mesh size at ground level to keep smaller animals in. High tensile wire or barbed wire can also be used successfully if installed correctly.

Equine – Horses, Mules, Donkeys

Equine are grazing animals. If pasture is to be used for sustenance, then one acre of pasture per horse is appropriate. If the area is to be used for a turn-out area, then five to six head can be carried on one acre of land. A small buffer area surrounding the turn-out is beneficial to reduce surface water runoff. Turn-outs are not considered pasture, but are considered outdoor living quarters. Turn-outs should be a minimum of 16' x 16' per animal. A run is normally a long, narrow pen that provides enough area for the horse to exercise. The needs of one horse not expected to move any faster than a trot can be met in a 20' x 100' run. If the horse will be expected to gallop, then the run should be approximately 200' long with enough room to turn safely at the end.

Fencing

The Horse Industry Handbook recommends that perimeter pasture fences should 60" high and 72" high for taller breeds. For small paddocks, corrals and stallion pens, the fence should be at eye level with the animal's head in a natural upright position. Fences dividing pastures can be 54" high, but 60" is preferable. Most stallion enclosures are double-fenced.

Fencing materials can include V-mesh, rectangular woven wire, stock wire, high-tensile wire, chain link, pipe and cable, rubber and poly vinyl chloride. If wooden, the posts should be 4" in diameter or 4" square. Posts are normally set on 6' or 8' centers. For a 60" wooden fence, the boards should be full 1" x 6". If the board fence is surrounding a corral or small exercise area, then hardwood boards can be 1" thick, but softwoods should be 2" thick.

The safest fencing is plank or rail fences made with wood or PVC. Wooden planks should be one inch thick and five to seven inches wide. Adequate horse fencing should contain at least four planks per section. PVC plank fencing is essentially maintenance free, attractive and long lasting, but is usually twice as expensive as wooden plank fencing. Mesh and wire fences can also be used and should be constructed based on manufacturer's specifications. Barbed wire is not recommended to contain horses.

Electric fencing should only be used as temporary equine fencing. If it is used, then it should be encased in plastic (electroplastic tape). Because of the poor eyesight of horses, the tape should be 1½” wide and possibly a reflective color. Two strands are suggested, one 18” from the ground and the other 48” high.

Shelter

Shelter should include a horse entrance that is 10’ high with the roof sloping away from the opening. The shed should have a minimum of 100 sq.ft. per yearling or small horse and 120 sq. ft. per large horse.

Sanitation

Manure should be removed daily from the horse stalls. Manure can be composted and then spread on fields or incorporated into the landscape. If it is to be piled and removed at a later date, then it should be stored in a three-sided enclosure with good drainage (gravel, stone) underneath. Manure should not be spread back onto the pasture because of the risk of parasite infestation. Manure may be composted and spread back on the pasture or it should be removed and spread off site. Some sanitation removal companies do provide the service of manure removal. Manure removal or composting manure will reduce the breeding grounds of flies.

Horse owners could be encouraged to devise a manure management plan that would meet the sanitary needs of the horse and minimize conflict with adjoining property owners. The plan might include the use of predator wasps or a feed additive as a form of fly control.

Dogs for Deer Control

The New York State Department of Environmental Conservation recognizes that dogs can be used to control damage by deer to orchards and vineyards. Invisible fence is recognized as a means of providing a barrier that keeps dogs within the orchard or vineyard, but provides a means of escape for the deer. Adequate shelter should be provided for the dog as well as food and water. More deer damage is done in the winter, so cold hardy (longhaired, Husky, etc.) types are preferred over shorthaired dogs.

FARM MARKETS, AGRI-TOURISM, AGRI-EDUCATION, AGRI-TAINMENT

Direct farm marketing and value-added processing are ways in which agricultural businesses may evolve to improve the profitability and viability of the total farm enterprise. They also provide additional employment for family members and local citizens. Farm markets also serve as a venue for a farm to sell excess produce.

With increased global competition and integration of the food sector, intensive, specialized commodity production is one management style that farmers can utilize to maintain viable farm enterprises. Other farm business owners may choose to directly market their produce to the public in a processed or unprocessed form.

Farm market owners increase the level of services and products that they provide based on the demands of the consuming public. Farm markets are important in that they provide a source of locally grown produce. To meet consumers' demands and to attract a customer base to maintain market viability, farm market managers may see a need to offer produce and products that have not been grown or processed on the farm.

As the intensity of the farm market business increases, thresholds can be built into regulations that would allow for discussion about site plan review or reclassification of the property.

Farm markets have evolved in two ways. The first way is as a drive by location. Customers stop at the farmstand based on its location between other destinations. The other farm market strategy is as a destination. These business types may evolve to include some form of entertainment such as a hayrides, harvest festivals and corn maze or education opportunities such as "how to " garden programs or farm tours. In other situations the entertainment vehicle may serve as the marketing component of the business. Communities are concerned about traffic, mass gatherings, sanitation and drainage, and the health, safety and welfare of the public. Special permits with pre-defined requirements could be one way to protect the interests of the public and allow unique farm activities to proceed.

Certain farm market practices are regulated at the state and county level. Before engaging in farm marketing activities it is important to consult with regulators regarding health permits, sanitation codes, licenses, sales tax, weights and measures and access to state or county roads.

When considering a farm market, farmers need to consider the customer base, competing businesses in the area and traffic flow. Questions that need to be addressed are destinations of the customers (which direction do they turn when leaving the stand and what time of day is the heaviest traffic).

Hours of operation

The hours that the business is open are very dependent on the goals of the owner and the needs of their customers. Some are open only on Friday, Saturday or Sunday. Some are only open during the growing season. Traffic is usually the heaviest on a Saturday.

Location

The location of the stand will greatly influence the success of the stand. More successful stands are easily visible from the road. A successful stand has a safe and visible access from the road. Off-road parking is essential for the safety of the customers and users of the highway. Parking adjacent to the market stand is important, but overflow parking should be available nearby, especially during peak seasons of the year.

Signage

Signs are the most common form of advertising for direct farm markets. Most towns have regulations regarding signage. Signs should be aesthetically appealing and placed at a distance that allows a driver to make a safe turn into the market.

Buildings

Suitable buildings for a farm market may be new construction, converted buildings or temporary structures. Some of the buildings that could be converted include old barns or sheds or other nearby buildings with a special character that add to the aesthetic appeal of the market. Correlation could be made regarding the size of the market building and the size of the parking area based on a site similar to a convenience store (size of retail area to area of parking lot) with a designated nearby area for overflow during peak hours. Ease of access is important for public safety. Quality parking is important in attracting repeat customers.

The main purpose of the building is to protect the produce and the customer from the weather. When building a new structure, farmers should consider the expected level of sales, the evolution of the farm market, the length of season and the types of products to be sold. Examining these factors determines the appropriate building design, needed construction materials and allows for future expansion as the business evolves. Zoning regulations and building codes also need to be considered.

Farmers must comply with local building codes or the NY State Building Code and Health Department requirements. Farmers may need to obtain local building permits and certificates of occupancy to ensure that health and safety requirements are met.

Pick-Your-Own Markets

Pick-your-own operations are a direct marketing system where the customer harvests the crop. Farmers may choose this sort of direct market enterprise based on scarcity of pickers, value of the crop, over-production, weather-damaged crops or quickly maturing crops. U-pick operations do best when they are located within an hour's drive of a population center of at least 50,000 people. Adequate access (appropriate driveway surface materials such as crushed stone or gravel) and parking areas are important for attracting repeat customers and for minimizing possible safety hazards as people turn into or leave the U-pick field.

Agri-tourism, Agri-education and Agri-entertainment

Wine trails are held as a model for agri-tourism. These trails are a coordinated effort of production agriculture and value-added processing. Activities similar to this can generate additional economic income to local businesses and rural communities. Safe, off-road parking is an important consideration. Size of the tasting room could be correlated to the size of the parking lot with nearby overflow parking available.

Farms may offer educational tours. This activity also requires appropriate parking. Tours provide better understanding of farming practices that help to minimize farm/non-farm conflicts.

Other activities in this category may include but are not necessarily limited to historical re-creations, festivals, pageants, special events, processing demonstrations, crop mazes, petting zoos, children amusements, horseback riding/hayrides and service related businesses for recreational enthusiasts.

Differences Between Farm Markets and Other Retail Stores

Farmers or their immediate family members should own farm markets. All farm markets or operators of farmstands, agri-tourism, agri-tainment or agri-education should have some production agriculture component associated with the business. Some of the product sold at the market should be grown on the farm.¹ If a farm market owner chooses not to grow a particular item but still chooses to sell that item, then he or she should make every attempt to purchase that product from a local grower or supplier. In other situations, in order to provide for customer needs, jams and jellies and other processed foods are purchased from vendors ready for sale, or ready to bake for retail sales. In order to maintain or increase the customer base some farm markets have diversified to include a bakery or on-farm processing to add value to the fruits or vegetables that are sold through the market. The NYS Department of Agriculture and Markets considers these practices as part of the farm operation as long as the products that are prepared or processed are composed primarily of ingredients produced on the farm.² Farm markets are different from other types of retail outlets in that the owner should engage in some form of agricultural production. Farm markets can be limited, in that operators are not allowed to sell petroleum products, cigarettes, or lottery tickets. National brand name beer should not be sold. Wine and beer produced with some of the crops from the farm could be allowed in a farm

¹ Direct farm marketing is considered by the NYS Department of Agriculture and Markets to be part of a “farm operation” and thus protected from unreasonable local restrictions by Agriculture and Markets Law (AML) §305-a when conducted on a farm in a State certified agricultural district. Please see the Department’s *Guidelines for Review of Local Laws Affecting Direct Farm Marketing Activities* (copy attached in the Appendix D for more information. The Department believes the sale of some agricultural products grown off the farm should be allowed, but has not established a percentage of on-farm versus off-farm products for that purpose. The Department considers the facts of a particular case in making a determination whether a local law is unreasonably restrictive, but generally would view requiring a predominance of on-farm products as reasonable. Localities are, of course, welcome to establish a lower percentage of on-farm products. The needs of ‘start-up’ operations should also be considered.

² Please see *Guidelines for Review of Local Laws Affecting Direct Farm Marketing Activities* (copy attached in the Appendix D).

Seasonal Labor Housing

Seasonal workers are an important source of skilled labor in the harvesting of fruit and vegetables grown in Onondaga County. It is suggested that seasonal labor housing should be located within an agricultural district.³ Farmers must comply with local requirements, which regulate the health and safety aspects of the construction of farm labor housing through provisions to meet local building codes or State Building Code and Health Department requirements for potable water and sewage disposal. Farmers must also obtain local building permits and certificates of occupancy to ensure that health and safety requirements are met. Depending upon the type of occupancy of housing involved, various State or federal requirements may also apply.

New York State Requirements

Labor camps occupied by five or more persons, one or more of who are employed, as laborers in farm activities, must meet the requirements of the NYS Sanitary Code (10 NYCRR Part 15, *Migrant Farmworker Housing*). These requirements include housing, sanitary standards, cooking and eating facilities, laundry, washing, and bathing facilities. The application to open the camp must be made each year, at least thirty days before the first day of proposed operations. The health commissioner or health officer will issue a permit to operate if he or she finds that the labor camp conforms to state requirements. The camp must remain in compliance during the period of occupancy.

Federal Requirements

Federal regulations covering temporary housing for migrant laborers and seasonal workers have been issued under the authority of the Migrant and Seasonal Workers' Protection Act (MSAWPA) and by the Occupational Safety and Health Act (OSHA). The regulations contain safety and health standards for housing, including fire protection, water supplies, plumbing maintenance, and maintenance of buildings, heating, and protection from insects and rodents.

The United States Department of Labor has the right to make pre-occupancy inspections of migrant labor housing with four or fewer occupants, processor housing and housing for foreign (H2A workers) contracted by a particular employer for temporary (less than 150 days) agricultural employment.

The federal standards are similar to the NYS regulations for migrant labor camps, but they are more detailed than those of the NYS Sanitary Code and may require more careful attention to ensure compliance. Compliance with both state and federal standards is required. A state or local or federal agency must inspect all housing, and a certificate of occupancy must be posted before occupation unless a request for inspection has been made at least 45 days prior to the expected occupation and no inspection has been conducted by that date. Farm labor contractors who provide housing must have a valid certificate authorizing the housing of migrant agricultural workers.

³ Farm labor housing is considered by the Department of Agriculture and Markets to be part of a "farm operation" and thus protected from unreasonable local restrictions by Agriculture and Markets Law (AML) §305-a when conducted on a farm in a State certified agricultural district. Please see the Department's *Guidelines for Review of Local Laws Affecting Farmworker Housing* (copy attached in the Appendix F) for more information.

Labor Camp Commissaries

Commissaries in New York State must be operated in compliance with three laws: the NYS Labor Law, the NYS Sanitary Code, and the federal law. Under the NYS Labor Law, operators must obtain a permit from the NYS Department of Labor each year before operating and post it in a conspicuous place in the commissary.

Off-Farm Seasonal Worker Housing

Off-farm housing does not require pre-occupancy inspection. Growers and contractors are not required to report year-round housing. Local rentals are under the jurisdiction of local building codes and sanitary codes.

APPENDIX A

Agriculture in a Comprehensive Plan Proposed or Potential Outline to Address Production Agriculture

The agricultural section of a comprehensive plan could include, but not be limited to some of the following concepts.

Part I – Agriculture in _____ Town

- A. Overview of land in farm use, soil quality, number of farms, with type of crops and livestock grown.
 - 1. County soil map with town boundary outlined
 - 2. Data of U. S. Census of Agriculture, NYS Department of Agriculture and Markets from Agricultural District Review
- B. Contribution of farm businesses and related service and tourist industry to local economy including jobs, value and type of crops and livestock
- C. Threats to and opportunities for agriculture within the town. Documentation of the conversion of farmland, population shifts, location of farming and growth areas, problems of incompatible nonfarm land uses in farming areas

Part II – Goals and Objectives for Support of Agriculture

- A. Goal 1: Encourage farming as important part of the local economy.
 - 1. Develop a local farm market to increase the exchange of locally produced food purchased by local consumers.
 - 2. Local ordinance review by NYS Department of Agriculture and Markets to ensure that ordinances do not discourage normal farming practices and do allow for some farm-based businesses.
- B. Goal 2: Protect farmland from conflicting non-farm development by locating large-scale residential development or commercial development in areas away from farming operations.
 - 1. Planning authority locates public sewer and water lines away from prime agricultural areas
 - 2. Planning authority permits low-density rural residential development or promotes rural hamlet concept to accommodate growth in rural areas
 - 3. Planning authorities work with farm groups, individual farmers, and non-farmers to review or adapt agricultural zones
 - 4. Local municipalities support financial incentives, such as preferential property taxation, purchase of development rights, transfer of development rights and donation of conservation easements to protect farmland
 - 5. Development encouraged where public water and sewers are located; sustainable development encouraged elsewhere.

APPENDIX B

Unified National AFO Strategy Executive Summary

Over the past quarter century, the United States has made tremendous progress in cleaning up its rivers, lakes and coastal waters. While pollution from factories and sewage treatment plants has been dramatically reduced, runoff from city streets, agricultural activities (including animal feeding operations or AFOs), and other sources continues to degrade the environment and puts drinking water at risk.

In February 1998, President Clinton released the Clean Water Action Plan (CWAP), which provides a blueprint for restoring and protecting water quality across the Nation. The CWAP identifies polluted runoff as the most important remaining source of water pollution and provides for a coordinated effort to reduce polluted runoff from a variety of sources. As part of this effort, the CWAP calls for the U.S. Department of Agriculture (USDA) and the U.S. Environmental Protection Agency (EPA) to develop a Unified National Strategy to minimize the water quality and health impacts of animal feeding operations (AFOs).

USDA and EPA issued a draft of this Strategy on September 16, 1998, and requested public comment during a 120-day period. In addition, 11 national “listening sessions” were held throughout the U.S. to discuss the draft Strategy and hear public feedback. The final Strategy reflects written comments received as well as issues raised during the listening sessions.

The Unified AFO Strategy discusses the relationships between AFOs and environmental and public health, is based on a national performance expectation for all AFO owners and operators, and presents a series of actions to minimize public health impacts and improve water quality while complementing the long-term sustainability of livestock production.

Background

AFOs are agricultural enterprises where animals are kept and raised in confined situations. Approximately 450,000 AFOs in the United States congregate animals, feed, manure and urine, dead animals, and production operations on a small land area. USDA data indicates that the vast majority of farms with livestock are small – about 85 percent of these farms have fewer than 250 animal units (Aus), where an AU is equal to roughly one beef cow (therefore 1,000 Aus is equal to 1,000 beef cows or an equivalent number of other kinds of animals). About 6,600 AFOs had more than 1,000 Aus in 1992 and are considered to be large operations.

As a result of domestic and export market forces, technological changes and industry adaptations, the past several decades have seen substantial changes in the animal production industry. Despite USDA support for sustainable agricultural practices, these factors have promoted expansion of confined production units, with growth in both existing and new areas; integration and concentration of some of the industries; geographic separation of animal production and feed production operations; and the concentration of large quantities of manure and wastewater on farms and in some watersheds.

AFOs can pose a number of risks to water quality and public health, mainly because of the amount of animal manure and wastewater they generate. Manure and wastewater from AFOs have the potential to contribute pollutants such as nutrients (e.g., nitrogen, phosphorus), organic matter, sediments, pathogens, heavy metals, hormones, antibiotics, and ammonia to the environment. These pollutants can cause several types of water quality and public health impacts, such as contamination of drinking water supplies and fish kills. While there are other potential environmental impacts associated with AFOs (e.g., odor, habitat loss, ground water depletion), this Strategy focuses on addressing surface and ground water quality problems. Once implemented, however, this Strategy will indirectly benefit other resources.

USDA and EPA's National Performance Expectation

To minimize water quality and public health impacts from AFOs and land application of animal waste, this Strategy is based on a national performance expectation that all AFO owners and operators develop and implement technically sound and economically feasible site-specific Comprehensive Nutrient Management Plans (CNMPs). A CNMP identifies actions that will be implemented to meet clearly defined nutrient management goals at an agricultural operation. The following components may be contained in a CNMP:

- **Feeding Management** - Animal diets and feed may be modified to reduce the amounts of nutrients in manure.
- **Manure Handling and Storage** - Manure needs to be handled and stored properly to prevent water pollution from AFOs.
- **Land Application of Manure** - Land application is the most common, and usually most desirable method, of utilizing manure because of the value of the nutrients and organic matter. Land application in accordance with the CNMP should minimize water quality and public health risk.
- **Land Management** - Tillage, crop residue management, grazing management, and other conservation practices should be utilized to minimize movement to surface and ground water of soil, organic materials, nutrients, and pathogens from lands where manure is applied.
- **Record Keeping** - AFO operators should keep records that indicate the quantity of manure produced and how the manure was utilized, including where, when, and amount of nutrients applied.
- **Other Utilization Options** - Where the potential for environmentally sound land application is limited, alternative uses of manure, such as the sale of manure to other farmers, composting and sale of compost to home owners, and using manure for power generation may also be appropriate.

AFO owners and operators may seek technical assistance for the development and implementation of CNMPs from qualified specialists. These specialists should assist in implementation and provide ongoing assistance through periodic reviews and revisions of CNMPs, as appropriate. USDA and EPA recommend that certified specialists be used to develop and ensure the quality of CNMPs.

Relationship of Voluntary and Regulatory Programs

Voluntary and regulatory programs serve complementary roles in providing AFO owners and operators and the animal agricultural industry with the assistance and certainty they need to achieve individual business and personal goals, and in ensuring protection of water quality and public health.

Voluntary Programs for Most AFOs

Voluntary programs provide an enormous opportunity to help AFO owners and operators and communities address water quality and public health concerns surrounding AFOs. For the vast majority of AFOs, voluntary efforts will be the principal approach to assist owners and operators in developing and implementing site-specific CNMPs, and in reducing water pollution and public health risks associated with AFOs. While CNMPs are not required for AFOs participating only in voluntary programs, they are strongly encouraged as the best possible means of managing potential water quality and public health impacts from these operations.

There are three types of voluntary programs to assist AFO owners and operators. USDA and EPA are both committed to promoting **locally led conservation** as one of the most effective ways to help AFO owners and operators achieve their conservation goals. **Environmental education** can bring awareness of possible water quality problems and inform AFO owners and operators about practices that will address such problems. A variety of **financial and technical assistance** programs exist to provide AFO owners and operators advice in developing CNMPs and implementing solutions and to help defray the costs of approved/needed structures (e.g., waste storage facilities for small operations) or to implement other practices, such as installation of conservation buffers to protect water quality.

Regulatory Program for Some AFOs

Impacts from certain higher risk AFOs are addressed through National Pollutant Discharge Elimination System (NPDES) permits under the authority of the Clean Water Act. AFOs that meet certain specified criteria in the NPDES regulations are referred to as concentrated animal feeding operations or CAFOs.

NPDES permits will require CAFOs to develop CNMPs and to meet other conditions that minimize the threat to water quality and public health and otherwise ensure compliance with the requirements of the Clean Water Act. NPDES permits will also ensure that the animal manure from CAFOs will be utilized properly and require reporting on whether the permittee has a CNMP including land application of animal manure and whether it is being implemented properly. The Strategy identifies three categories of CAFOs that are priorities for the regulatory program:

- **Significant Manure Production** - Large facilities (those with greater than 1000 animal units) produce quantities of manure that can be a risk to water quality and public health.
- **Unacceptable Conditions** - Facilities that have man-made conveyances that discharge animal waste to waters or have a direct discharge to waters that pass through the facility or come into direct contact with animals represent a significant risk to water quality and public health.
- **Significant Contributors to Water Quality Impairment** - A facility that is significantly contributing to impairment of a water body or a watershed and non-attainment of a designated use is also a priority for the NPDES permitting program.

The Strategy supplements these regulatory program priorities with three types of incentives for some AFOs. Smaller CAFOs that meet certain conditions may exit the regulatory program at the end of their permit term if they correct the problem(s) that caused them to be covered by the regulatory program. The Strategy also describes a “good faith incentive” for some AFOs to avoid being covered by the regulatory program if they have and are implementing a CNMP. Finally,

there are tax incentives that may be available to encourage AFOs owners and operators to develop and implement a CNMP.

Coordination with State and Tribal Programs

States and Tribes play a critical role in the development and implementation of national and State and Tribal resource protection programs. USDA and EPA expect to work with States and Tribes to implement effective programs to achieve the national goal and performance expectation of this Strategy. The Strategy includes actions to address a range of State and Tribal issues.

Strategic Issues

The Unified AFO Strategy addresses seven strategic issues. The discussion of each strategic issue identifies several action items.

- **Building Capacity for CNMP Development and Implementation** - The successful implementation of this Strategy depends on the availability of qualified specialists from either the private or public sectors to assist in the development and implementation of CNMPs. The Strategy describes actions to substantially increase AFO owners and operators' access to technical assistance for developing and implementing CNMPs.
- **Accelerating Voluntary, Incentive-Based Programs** - The Strategy sets out a desired outcome that all AFOs will have CNMPs by 2009. Several actions, including review and revision of USDA's practice standards, development of CNMP guidance, fair and equitable program delivery, and options for financial assistance, are directed toward achieving this objective.
- **Implementing and Improving the Existing Regulatory Program** - The Strategy describes the applicability and the requirements of the existing regulatory program, identifies permitting and enforcement priorities, recognizes State and Tribal CAFO permit programs, and describes EPA's plans to strengthen and improve existing regulations.
- **Coordinated Research, Technical Innovation, Compliance Assistance, and Technology Transfer** - USDA and EPA will establish coordinated research, technical innovation, and technology transfer activities, provide compliance assistance, and establish a single point information center. The two agencies are also committed to promoting sustainable agriculture and will support development of a livestock environmental issue curriculum for producers.
- **Encourage Industry Leadership** - The animal agriculture industry can play a key role in helping to encourage adoption of CNMPs and in addressing water quality problems on individual AFOs. The Strategy includes possible actions that USDA and EPA may take to promote industry involvement.
- **Data Coordination** - Several kinds of data are useful in assessing and managing the water quality impacts of AFOs. USDA and EPA's efforts to coordinate on data sharing will both protect the relationship of trust between USDA and farmers and provide regulatory authorities with information that is useful in protecting water quality and public health.
- **Performance Measures and Accountability** - USDA and EPA believe that it is critical to establish performance measures to gauge our success in implementing the Strategy and meeting relevant goals in each agency's strategic plan established under the Government Performance and Results Act. USDA, EPA, States, Tribes, and other Federal agencies will work with other stakeholders to develop an approach for

measuring the effectiveness of efforts to minimize the water quality and public health impacts of AFOs.

Printed copies of the United National Strategy for Animal Feeding Operations may be obtained by calling USDA on (202) 720-3210 or EPA on (202) 260-7786. An electronic version of the Strategy is available on the Internet at <http://www.epa.gov/owm/finafost.htm>

| [OWN home](#) | [EPA home](#) | [Contact Us](#) | [Search](#) |

This page last updated on May 19, 1999
<http://www.epa.gov/owm/permits/afo/execsum.htm>

APPENDIX C

Local Laws and Agricultural Districts: How Do They Relate?

Counties, towns and villages in New York State have broad powers to enact laws to govern their own affairs. However, State laws impose certain restrictions on local government authority. One such restriction is found in Section 305-a of the Agriculture and Markets Law which contains the following mandate:

“Local governments, when exercising their powers to enact and administer comprehensive plans and local laws, ordinances, rules or regulations, shall exercise these powers in such manner as may realize the policy and goals set forth in this article [*Article 25-AA of the Agriculture and Markets Law*], and shall not unreasonably restrict or regulate farm operations within agricultural districts in contravention of the purposes of this article unless it can be shown that the public health or safety is threatened.”

This brochure has been prepared by the New York State Department of Agriculture and Markets to assist municipalities in drafting local laws and ordinances which may affect farming in an agricultural district. It should not be substituted for legal advice from a municipality’s attorney. The brochure also offers guidance to farmers and municipalities on the application of Section 305-a.

The Commissioner of Agriculture and Markets may independently initiate a review of a proposed or existing local law or ordinance or proceed upon the request of a farmer or municipality in an agricultural district. The following describes the procedure for requesting review, how the local requirements are analyzed, and remediated, if necessary.

PROCEDURE

Questions concerning the impact of local laws and ordinances on farm operations are solved far more easily at the drafting stage than after the provision is in place. Municipalities are, therefore, encouraged to contact the Department, either by phone or in writing, in advance of enacting a law or ordinance which may restrict farming in an agricultural district. The Department will provide

George E. Pataki
Governor

Nathan L. Rudgers
Commissioner

an informal, non-binding response to such inquiries. Similarly, a farmer or other affected party in a district may seek the Department’s informal opinion on a proposed or existing law or ordinance without filing a complaint.

Farmers

A request for review must be provided in writing and include at least the following information:

- the location of the farm operation and identification of the agricultural district in which it is situated;
- a description of the affected farm operation (e.g. size of farm, type of enterprise, years in operation);
- a description of the specific farm buildings, equipment or practices involved and how they are affected;
- a copy of the complete local law or ordinance and
- identification of the specific section or sections involved;
- a listing of involved parties who can be contacted for further information (including addresses and phone numbers).

Subsequent to receiving a request for review of a local law or ordinance, the Department will contact the municipality involved and provide them with an opportunity to respond.

Municipalities

A request for review must be provided in writing and include at least the following information:

- the identification of the agricultural district(s) affected;
- a description of the specific law or proposed law and how farm buildings, equipment or practices are or may be affected
- a copy of the complete local law or ordinance and identification of the specific section or sections involved;
- a listing of involved parties who can be contacted for further information (including addresses and phone numbers).

ANALYSIS

The Department examines several factors in evaluating whether a local law or ordinance is in compliance with Section 305-a. Tests that must be met in each case are as follows:

- **Is the affected farm located within an agricultural district?**
Section 305-a only applies to farm operations in an agricultural district.
- **Does the regulated activity encompass farm operations?**
Section 301(11) of the Agriculture and Markets Law defines “Farm Operation” as meaning: “...the land and

on-farm buildings, equipment, manure processing and handling facilities, and practices which contribute to the production, preparation and marketing of crops, livestock and livestock products as a commercial enterprise, including a 'commercial horse boarding operation' as defined in subdivision thirteen of this section.” The definition of “crops, livestock and livestock products” is found in Section 301(2). Only farm operations are protected by Section 305-a. The Department draws on the expertise of its program and legal staff, and other resources as needed, to make these determinations.

- **Does the local law or ordinance unreasonably restrict or regulate?**

The evaluation of reasonableness consists of two parts: 1) whether the law or ordinance is unreasonably restrictive “on its face,” and 2) whether it is unreasonably restrictive as applied to a particular situation.

Some laws or ordinances are so vague that they inhibit farmers from undertaking certain activities or constructing certain buildings out of concern for violating the law or ordinance. In this case, it is possible that the law or ordinance, because of its vague construction, could be construed as unreasonably restricting a farm operation.

An ordinance may also appear reasonable in the abstract, but may unreasonably restrict or regulate a particular farmer. For example, many zoning ordinances impose setback requirements for structures in the interest of public safety or even aesthetics. These setbacks may be entirely reasonable under usual conditions, but may be construed as being unreasonably restrictive if applied to a farmer who, for example, constructs a building on a dead-end street, shielded from view, and near the only available water source.

A reasonable exercise of authority in one locality may translate into an unduly burdensome restriction on farming in another. In sum, reasonableness depends on the totality of circumstances in each case.

- **Is the public health or safety threatened by the regulated activity?**

Even if the Department determines that a particular law or ordinance is unreasonably restrictive, it must also ask whether the public health or safety is threatened by the regulated activity. If so, it could withstand the limitations of Section 305-a.

REMEDIES

If the Department determines that a local law or ordinance unreasonably restricts or regulates farm operations in an agricultural district, it will notify the involved municipality to that effect and attempt to arrive at a mutually satisfactory resolution. In the case where a municipality rejects the Department’s attempts at remediation, the Commissioner of Agriculture and Markets is explicitly authorized by law to bring an action to enforce Section 305-a. Alternatively, the Commissioner may issue an Order to comply, pursuant to Section 36 of the Agriculture and Markets Law.

Requests for general information or assistance, and formal written complaints alleging violations of Section 305-a, should be directed to:

**Agricultural Districts Program Administrator
New York State Department of Agriculture
and Markets**

**I Winners Circle
Albany, NY 12235**

Phone: (518) 457-2713

APPENDIX D

Guidelines for Review of Local Laws **Affecting Direct Farm Marketing Activities**

Typically “direct farm marketing” encompasses roadside stands, farm markets, farmers’ markets, and “u-pick” or “pick your own operations”. Direct farm marketing is considered by the Department to be part of a “farm operation” and thus protected from unreasonable local restrictions by Agriculture and Markets Law (AML) §305-a when conducted on the farm.

Direct farm marketing should be allowed in all areas within a county-adopted, State certified agricultural district. However, the degree of regulation of the various forms of direct farm marketing that is considered unreasonable depends on the nature of the proposed activities and the size and complexity of the proposed structure. A requirement to apply for a permit is generally not unreasonable. Depending upon the size and scope of the retail facility, greater regulation, such as special use permits and site plan review, may be reasonable. The Department urges local governments to take into account the size and nature of the particular farm market when setting and administering such requirements. For example, to require a small farm market, which sells only a minimal amount of off-farm product, to obtain a special use permit and site plan approval may be unreasonably restrictive.

Generally, the Department does not review the administration of a local law before a landowner has exhausted his local administrative remedies.¹ Farmers must comply with local requirements which regulate the health and safety aspects of the construction of farm buildings through provisions to meet local building codes or the State Building Code (unless exempt from the State Building Code under 9 NYCRR §651.32) and Health Department requirements. Farmers must also obtain local building permits and certificates of occupancy to ensure that health and safety requirements are met.

The following are some of the specific matters that the Department considers when reviewing a local law that affects direct farm marketing:

A. Maximum Dimensions:

Generally the Department will consider whether maximum dimensions imposed by a local law are sufficient to meet existing and/or future farm needs. For example, many roadside stands are located within existing garages, barns, and outbuildings that may have dimensions greater than those set by a local ordinance. Buildings specifically designed and constructed to accommodate the sale of farm products may also not meet the local requirements. The size and scope of the farm operation is also considered.

¹ However, an administrative requirement/process may, itself, be unreasonably restrictive. The Department evaluates the reasonableness of the specific requirement/process, as well as the substantive requirements imposed on the farm operation.

² Please see *Guidelines for Review of Local Zoning and Planning Laws* for discussion of State Building Code.

Larger farms, for example, cannot effectively market their produce through a traditional roadside stand.

B. Sign Limitations:

Whether or not a limitation on the size and/or number of signs that may be used to advertise a roadside stand is unreasonable depends upon the location of the stand and the type of produce sold. A farmer who is located on a principally traveled road probably will not need as many signs as one who is located on a less traveled road and may need directional signs to direct the public to their stand. The size of a sign needed may depend on whether the farmer needs to advertise the availability of several different types of produce or just one or two products.

C. Product Origin:

Some farmers import produce from other farms to sell at their stands to increase the diversity of products offered or to bridge periods of low supply of commodities produced on-farm. Product diversity may attract potential customers to a roadside stand or farm market. The Department believes the sale of some agricultural products grown off the farm should be allowed, but has not established a percentage of on-farm versus off-farm products for that purpose. The Department considers the facts of a particular case in making a determination whether a local law is unreasonably restrictive, but generally would view requiring a predominance of on-farm products as reasonable. The needs of “start-up” farm operations should also be considered. These farms often start out selling a large percentage of agricultural products grown off the farm in order to develop a customer base and maintain income while their farms are growing. If a percentage of on-farm products were required by a locality, allowing such farms a reasonable period of time to meet the percentage would be reasonable.

The Department considers commodities produced “on-farm” to include any products that may have been produced by a farmer on their “farm operation,” which could include a number of parcels owned or leased by that farmer throughout a town, county, or the State. The Department considers all such land, when it is located in a State certified agricultural district, as part of the farm operation.

D. On-farm preparation of processed foods:

Some of the larger farm markets may have facilities for the on-site preparation of processed foods (e.g. a kitchen, bakeshop, etc.), as well as facilities for consumption of foods (e.g., a café). The Department considers these practices as part of the farm operation as long as the products that are prepared are composed primarily of ingredients produced on the farm.

E. Ag-tourism/recreational activities:

Many farm markets offer some form of on-farm recreational activity such as hayrides, a petting zoo, or a cornfield maze. These activities are often an important component of farm markets since they are a useful tool to attract customers. If it can be

shown, on a case by case basis, that an activity will “...*contribute* to the production, preparation and marketing of crops, livestock, or livestock products...” [AML §301(11), emphasis added] it may be considered by the Department to be part of the farm operation. However, the activity, e.g., hayrides, a petting zoo, or a cornfield maze, must be used as part of the direct marketing strategy of the farm operation. Crops, livestock or livestock products must be grown or raised and sold through direct marketing to the public at the time the activity is in use since these activities are designed to attract potential customers to the property so they may purchase crops, livestock or livestock products.

3/11/02

APPENDIX E

Last updated on August 21, 2000 by Intermedia Design Systems, Inc.

DEPARTMENT OF STATE CODE INTERPRETATIONS

Code Interpretations 715 – 731 by the NYS Secretary of State

Other Code Interpretations available from IDS

Uniform Fire Prevention and Building Code Codes Division

CODE INTERPRETATION NUMBER 717

DATE OF ISSUE: (Signed 1/7/98)

Code Section: 651.3

Does section 651.3 classify a family operated farm stand as a nonresidential farm building?

Interpretation

No. Section 701.4(b) classifies a farm stand as group C2, mercantile occupancy. The primary purpose of the farm stand is the display and sale of agricultural produce to the public. The farm stand is not used directly and exclusively for the production of the goods. Section 651.3 applies to buildings used directly and solely for agricultural purposes, including barns, sheds, poultry houses and other buildings and equipment for the production of crops or to raise livestock.

This Code Interpretation is issued in accordance with Executive Law section 376(4). Subsequent enforcement of the New York State Uniform Fire Prevention and Building Code shall be consistent with this interpretation.

Alexander F. Treadwell, Secretary of State

Date: January 7, 1998

APPENDIX F

Guidelines for Review of Local Laws Affecting Farm Worker Housing

Farm worker housing, including mobile homes (also known as “manufactured homes”), is an integral part of numerous farm operations. Farmers often provide on-farm housing for their farm laborers to accommodate the long workday, meet seasonal housing needs and address the shortage of nearby rental housing in rural areas. The use of manufactured or mobile homes for farm worker housing is a common farm practice. Manufactured or mobile homes provide a practical and cost effective means for farmers to meet their farm labor housing needs. The term “on-farm buildings” includes farm labor housing, including manufactured housing, used for the on-farm housing of permanent and seasonal employees, and is therefore subject to the protection of Agriculture and Markets Law (AML) §305-a.1

Generally, in evaluating the use of farm labor housing under §305-a, the Department considers whether the housing is used for seasonal and/or full-time employees; is provided by the farm operator (irrespective of whether the operator owns or rents the farm for the production of agricultural products); whether the worker is an employee of the farm operator and employed in the farm operation(s); and whether the farm worker is a partner or owner of the farm operation. The Department does not consider the primary residence of the owner or partner of the farm operation to be protected under §305-a.

The degree of regulation of farm worker housing that is considered unreasonable depends on the number of units, size of the structure(s) and the complexity of the housing to be provided. A requirement to apply for a permit is generally not unreasonable. Depending upon the size and complexity of the structure(s) to be built or the number of units to be sited on a farm, a site plan review requirement may be reasonable. The Department urges local governments to take into account the size, complexity and number of units of housing required by the farm operation when setting and administering such requirements. For example, the Department has not considered the need to undergo site plan review, where more than two mobile homes are sited on the same farm complex, unreasonable. However, conditions placed upon the issuance of a permit and/or the cost and time involved to complete site plan review requirements may be unreasonable.

Generally, landowners should exhaust their local administrative remedies before the administration of a local law is reviewed by the Department.² Farmers must comply with local requirements which regulate the health and safety aspects of the construction of farm buildings through provisions to meet local building codes or the State Building Code (unless exempt from the State Building Code under 9 NYCRR §651.3) and Health Department requirements for potable water and sewage disposal. Farmers must also

¹ The Department’s interpretation was upheld in *Town of Lysander v. Hafner*, New York Court of Appeals, 96 N.Y.2d 558 (October 18, 2001).

² However, an administrative requirement/process may, itself, be unreasonably restrictive. The Department evaluates the reasonableness of the specific requirement/process, as well as the substantive requirements imposed on the farm operation.

obtain local building permits and certificates of occupancy to ensure that health and safety requirements are met.

Some municipalities have developed reasonable requirements to ensure that farm labor housing, particularly manufactured housing, is used only for legitimate farm employees; is removed if it is not used for its intended purpose; and is periodically reviewed for compliance.

The following are some of the specific matters that the Department considers when reviewing a local law that affects farm worker housing:

A. Minimum Dimensions

Establishing minimum square foot dimensions and/or floor space has been determined to be unreasonably restrictive in certain instances. Many mobile homes used for farm labor housing have outside dimensions of 14 feet by 70 feet (i.e., 980 square feet). Older model manufactured housing may have lesser square foot dimensions, however. To address this concern, a municipality may elect to not establish a minimum square foot requirement for farm worker housing on a farm operation within a State certified agricultural district.

B. Lot Size

Requiring a minimum lot size exceeding 10,000 to 15,000 square feet may be unreasonably restrictive. A farmer may be unable to meet such a minimum lot size due to the configuration of the land used for production or lying fallow as part of a conservation reserve program. The need to be proximate to a water supply, sewage disposal and other utilities is also essential. Farm worker housing is usually located on the same property which supports other farm structures. Siting farm labor housing very near other farm structures, such as a barn or milking parlor, is important for ease of access and for security purposes. Presumably, minimum lot size requirements are adopted to prevent over concentration of residences and to assure an adequate area to install a properly engineered well and waste disposal system. Farm worker housing should be allowed to be sited on the same lot as other agricultural use structures subject to the provision of adequate water and sewage disposal facilities and meeting minimum setbacks between structures.

C. Setbacks

Minimum setbacks from front, back and side yards have not been viewed as unreasonable unless a setback distance is unusually long. Setbacks that coincide with those required for other residential structures have, in general, been viewed as reasonable.

D. Screening

A requirement to screen farm labor housing from view has been found by the Department to be unreasonable. Screening requirements suggest that farm worker housing is, in some way, objectionable or different from other forms of residential housing that do not have to be screened. Farmers should not be required to bear the

extra costs to provide screening unless screening is required to address a threat to the public health or safety or is shown to be necessary due to special local conditions.

E. Compliance with HUD Standards

A requirement that mobile homes constructed before June 1976 comply with HUD construction and safety standards may be unreasonably restrictive. Manufactured homes do not need to meet current HUD standards to be safe and fit for human occupancy. The adoption of the federal standards does not mean that manufactured homes constructed prior to their promulgation (June 1976) are unsafe or unfit for human occupancy, any more than a conventional unit built prior to the application of a local building code or the State Uniform Fire Prevention and Building Code can be considered unsafe. The State Building Code provides that manufactured homes constructed before June 15, 1976 need not be built in accordance with HUD standards and have a certifying label and data plate if they have been inspected to determine that they are structurally sound and free of heating and electrical system hazards [9 NYCRR §1231.5(e)]. Manufactured homes as part of a farm operation should be allowed to meet either the HUD standards or pass inspection as provided in 9 NYCRR §1231.5(e).

F. Removal of Farm Labor Housing if Unoccupied

Requiring farm labor housing be immediately removed from a site upon cessation of its use by the farm operation or if a farm operation stops producing an agricultural crop may be unreasonable. Housing may be used only seasonally. In addition, unforeseen circumstances, such as a change in a farm operation due to a death in the family or a change in ownership, may prevent such housing from being used within a given year. Some municipalities require the removal of farm labor housing if it has not been used for such purposes for three years. Such a requirement is reasonable and takes into account changes in farm circumstances.

G. Sharing of Farm Labor and Housing

Farmers may, under certain circumstances, share farm labor and housing to provide full employment to farm workers throughout the growing season. This helps ensure that labor needs are met and workers do not leave the area for other employment opportunities. There should be some flexibility in a local law to accommodate the sharing of farm labor and/or housing. The Department considers the facts of a particular case in making a determination whether a local law is unreasonably restrictive, but generally would view a requirement that workers be employed or used more than 51 percent of the time by the farm operation where the housing is located as reasonable.

APPENDIX G

GROWING GREENER

(click here)

Putting Conservation Into Local Codes

LITERATURE CITED

_____. *Addendum to the Comprehensive Plan, Town of Camillus, Rural Land Use Issues*. Prepared by the Town of Camillus Agricultural Advisory Committee. September 1993.

Ambrosiano, Nancy W. and Mary F. Harcourt. *Complete Plans for Building Horse Barns, Big and Small*. Ossining, NY Breakthrough Publications. June 1990.

Barton and Loguidice, P.C. *Town of Marcellus Comprehensive Plan and Draft Generic Environmental Impact Statement*. April 2001.

Daniels, Tom and Deborah Bowers. *Holding Our Own, Protecting America's Farms and Farmland*. Washington, D.C. Island Press. 1997.

Duany Plater-Zyberk & Company. *Onondaga County Settlement Plan, The Regional Plan and Pilot Projects*. 2001.

Edelman, Mark A. Jon Roe and David B. Patton. *Land Use Conflict: When City and Country Clash*. Farm Foundation. 1999.

_____. *Entertainment Farming and Agri-Tourism*. Appropriate Technology Transfer for Rural Areas. PO Box 3657, Fayetteville, AR 72702

Ferguson, Kirsten, Jeremiah Cosgrove and Teri Ptacek. *Action Guide Agriculture and Farmland Protection for New York*. American Farmland Trust. Northampton, MA. 1999.

_____. *Framework for Growth in Onondaga County*. Syracuse-Onondaga County Planning Agency. June 1998.

Freegood, Julia. *Saving American Farmland: What Works*. American Farmland Trust. Northampton, MA. 1997.

_____. *Growing Greener, Putting Conservation into Local Codes*. Natural Lands Trust. Media, PA. November 1997.

Hill, Cherry. *Horsekeeping on a Small Acreage, Facilities and Design Management*. Pownal, VT. Storey Communications, Inc. 1990.

_____. *Horse Industry Handbook*. American Youth Horse Council, Inc. 1993.

Hutton, Frank Z., Jr. and Erwin Rice. *Soil Survey of Onondaga County, New York*. United States Department of Agriculture, Soil Conservation Service in Cooperation with Cornell University Agricultural Experiment Station

King, Robert N. *Using Land Evaluation and Site Assessment (LESA) for Farmland Protection Planning: A Case Study*. Extension Journal. August 2001.

Lloyd, Renee et.al. *Direct Farm Marketing and Tourism Handbook*. Cooperative Extension Service, Division of Agriculture, Oklahoma State University, OSU Facts No. 184, 186. 1995.

_____. *Local Laws and Agricultural Districts: How Do They Relate?* James A. Coon Local Government Technical Series. Agricultural Districts Program Administrator, NYS Department of Agriculture and Markets, 1 Winners Circle, Albany, NY 12235 August 1999.

NYS Department of Agriculture and Markets. *New York Equine Survey 2000*. Albany, NY 2000.

NYS Department of Agriculture and Markets Law. *Article 25AA Agricultural Districts*.

NYS Consolidated Laws. *Public Health, Title 1 Section 1300*.

NYS Department of Environmental Conservation. *Environmental Conservation Regulations 6 NYCRR Subchapter D Parts 420 – 425 Mineral Resources (Mined Land Reclamation)* Effective January 18, 1995.

_____. *Onondaga County Agricultural and Farmland Protection Plan*. Onondaga County Agricultural and Farmland Protection Board. April 1997.

Robb, Maureen Maloney and Nelson Bills. *Farmland Protection Planning in New York*. Cornell University, Ithaca, NY April, 2001.

Shepstone, Thomas J. and Alan J. Sorensen. *Agricultural Planning Guidelines, Schoharie County*. June 2000.

Smith, Elton, M. *Landscape Plants for Use in Borders and Screens*. The Ohio State University. Copy available from Cornell Cooperative Extension, Onondaga County. June 1999.

_____. *Working Trees for Communities*. National Agroforestry Center, USDA Forest Service, Rocky Mountain Station/USDA-NRCS, East Campus – UNL, Lincoln, NE 68583-0822

_____. *Zoning Code* Town of Lysander.

_____. *Zoning Code* Town of Skaneateles.

Websites, Cornell University, Animal Science Department Sheep and Goats Website, Quality Communities Report