
St. Clair County

Agricultural and Rural Character Protection Plan



Michigan State University Practicum 2007

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1. Introduction

1.1 Executive Summary

Urban and Regional Planning Practicum students at Michigan State University have compiled this plan to assist with the update of St. Clair County's Master Plan, focusing on the protection of the County's rural character and agricultural lands. The primary objectives of this plan are to give an overview of St. Clair County agricultural trends, the level of protection provided by local zoning ordinances, and possible recommendations for increasing both protection and profitability of farmland in the County. St. Clair County is currently home to an abundance of prime farmland soils and because County residents have shown an interest in keeping their community rural (as can be seen in the Master Plan), there is much potential for proactively protecting agricultural areas.

This plan is composed of 6 key sections of analysis:

1. A review of St. Clair County today including: a brief socioeconomic profile, an analysis of land use and land cover, a discussion on local governments and community goals.
2. Agricultural trends in the County including: the top ten agricultural products, agricultural sales, and changes in farm numbers by farm type over time.
3. The current state of farmland preservation in St. Clair County including: a depiction of the level of participation in farmland preservation programs, as well as a description of other potential protection tools and an analysis of their strengths and weaknesses.
4. A review of zoning ordinances of townships in the County's Rural and Agricultural Conservation District including: the recognition of strengths and weaknesses in each ordinance, the level of support provided for agricultural protection with comparisons to population growth, examples of sound zoning ordinances and recommendations for updating township zoning ordinances.
5. Methods for adding value to agricultural production including: descriptions and examples of direct marketing, farmers markets, community supported agriculture, and niche markets.
6. Avenues for increasing public awareness and support for agricultural preservation including: techniques for educating the community and encouraging both communication and participation throughout the County.

Additionally, this plan offers case studies related to successful preservation techniques from both the State of Michigan and around the Nation.

Upon examination of the St. Clair County Master Plan, the importance placed on protecting farmland from a governmental stand point, as well as from community members, becomes evident. The Master Plan has divided the County into 3 districts, each intended to provide for and promote certain land uses. In particular, the Rural and Agricultural Conservation district, which contains the most prime farmland soils in the County, is intended to remain as primarily agricultural land or open space. Development is encouraged in the other two districts, as a means of protecting the traditional character of the Rural and Agricultural Conservation District. While these designations are strictly advisory, they represent a first step in proactively planning for the development and protection of farmland in St. Clair County. Townships in this district are the focus of analysis regarding the level of protection for agricultural lands in township zoning ordinances.

In reviewing zoning ordinances pertaining to agriculture and open space in the 12 Townships of the Rural and Agricultural Conservation District, this plan highlights the strengths and weakness presented in each. These strengths and weaknesses are then evaluate as a means of ranking each Township as having high, medium, or low support for agriculture and open space protection. As further analysis reveals, the townships providing low support (Berlin, Columbus, Emmett, Kenockee, Lynn, Mussey, and Riley) are the same townships that are expected to experience the most population growth by 2030, according to SEMCOG. These projections further the necessity for planning in advance for the protection of this districts valued agricultural land.

The examination of agricultural trends in the St. Clair County reveals one finding of particular significance, which can be related to farmland preservation in St. Clair County. Direct sales of products sold to individuals increased 140.3% from 1992-2002 in the County, calling for closer look at the direct marketing of products. Increasing the profitability of agricultural products allows for a more stable farming economy and therefore encourages the preservation and maintenance of farmland. Direct marketing is one avenue of increasing agriculture profitability described in this plan, along with its relevance to St. Clair County.

This plan concludes with recommendations for preserving farmland based on the MSU practicum group's research and analysis. These recommendations can be considered the "next steps" to be taken to effectively protect agriculture and rural character in St. Clair County. Updating Township zoning ordinances, implementing the public awareness campaign, identifying growing and niche markets, encouraging e-business and linkages between farms and local businesses, increasing the level participation in and funding for preservation programs, and encouraging development appropriate to the County's designated districts, are all included as next steps. No one tool will protect farmland alone, the recommendations provided, as well as the planning and legal tools described in this report, should be used in combination with one another to allow for the highest level of protection for agricultural and open spaces. Through the use of farmland protection tools, and support from community members, local governments, and farmers, St. Clair County has the potential to effectively preserve farmland with these proactive measures.

1.2 Practicum Structure

Urban Planning Practicum at Michigan State University is a research and report based course where students apply their planning and development skills to an actual community-based project. The course operates as a self-guided research assignment requiring students to gather data, evaluate and interpret the data, and produce a professional report for the students' client. The desired result is to expose Urban Planning students to actual work that planners and developers encounter in the planning profession. Students are also able to further develop skills learned in previous courses by applying them to the project. The practicum experience is mutually beneficial for all parties involved including the students, community, and project contacts.

1.3 Description of the Issues at Hand

Farmland is a critical component of Michigan's economy, benefiting local economies through sales, related business enterprises, processing and distribution industries, as well as local job creation. Farming not only has a significant impact on the economy, it also is a large part of the State's history and culture.

As St. Clair County's population continues to grow, the potential to displace agricultural land with residential and commercial uses will increase. Sprawl is impacting communities across the state of Michigan and the United States. In neighboring counties like Macomb and Oakland, the impacts of suburban sprawl can be seen throughout the community. Macomb County has lost nearly 87,000 acres of farmland and nearly 1,400 farms over the last 40 years. As Metro Detroit continues its outward development toward the fringes, vast expanses of farmland are being sold off, split up and transformed in to sprawling subdivisions. St. Clair County lost 10% of its active agricultural land between 1990 and 2000.

In 2001, a diverse group of concerned farmers and local officials formed the Farmland and Open Space Initiative (FOSI), a group dedicated to developing innovative procedures for preserving farmland in St. Clair County. It was the first citizen-based group focused on protecting farmland and open space for present and future generations. Within a year from the FOSI's formation, a framework emerged for the County's first farmland preservation program. With help from outside experts, the FOSI was able to formulate a countywide Purchase of Development Rights (PDR) program.

The St. Clair County Agricultural Preservation Board was born out of the FOSI group and was formally established on June 9, 2004. The board consists of nine members who represent a variety of agricultural interests, including township government, real estate development, and city/village interests.

The County Master Plan, adopted in 2000, and currently being updated by the Metropolitan Planning Commission (MPC), strongly advocates for preserving farmland and the agricultural heritage of the County. The MPC is also working to promote reinvestment in the urban centers of the County, including Port Huron, St. Clair, and Marine City. By focusing development attention to these urban cores, the MPC aims to

preserve the rural character and agricultural lands that currently exist in the northwest region of the County.

1.4 Purpose

The Agricultural and Rural Character Protection Plan analyzes the current state of farmland and farmland protection in St. Clair County. Additionally, it offers methods and suggestions for protecting farmland and the traditional character of the Rural and Agricultural Conservation District in the County.

1.5 Goals

The plan is intended to:

- ❖ Provide a comprehensive overview of current and past trends in land use throughout the County.
- ❖ Represent agricultural, economic, and other County data, from both past and present, in a simple and organized manner, with the use of graphs, charts, and GIS maps.
- ❖ Provide best practices of preservation programs within Michigan and throughout the Country.
- ❖ Provide an in-depth inventory of all available preservation tools at both the state, regional, and national level.
- ❖ Identify methods of diversification in agricultural marketing and tourism, as a means of providing farmers with alternative and potentially more profitable uses of their land.
- ❖ Increase public awareness on the opportunities for and the benefits of agricultural preservation.
- ❖ Offer recommendations for the implementation of agricultural and open space preservation in St. Clair County.

1.6 Philosophy

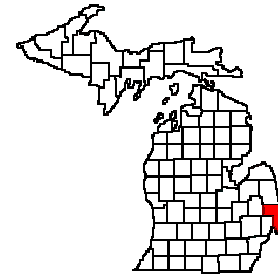
The Agricultural and Rural Character Protection Plan advocates the preservation of the unique natural resources making St. Clair County a great place to live. This plan is intended to work in conjunction with the goals of the Metropolitan Planning Commission (MPC), the County's Master Plan, and the St. Clair County Agricultural Preservation Board. The conclusions and recommendations of this report are based on in-depth analysis of the County's agriculture sector, relevant legislation and regulations, geographic and economic trends.

1.7 Methodology

In order to create a comprehensive agriculture preservation plan for St. Clair County, information has been gathered from many different resources. The main

sources of data include the USDA Agricultural Census and the Southeast Michigan Council of Governments' (SEMCOG) database. The County's Master Plan and twelve township zoning ordinances from the Rural and Agricultural Conservation District have been evaluated to gather information specific to the region and relative to long-range planning for agriculture. This data has been analyzed in order to provide recommendations and best practices for farmland preservation in St. Clair County.

2. St. Clair County Today



2.1 Geography

Map 2.1



Source: St. Clair County Master Plan 2000

St. Clair County, a primarily residential and agricultural community, is surrounded by Macomb, Lapeer, and Sanilac Counties. The Second Blue Water Bridge, over the St. Clair River, provides a link between Canada and the United States, with St. Clair County serving as the gateway.

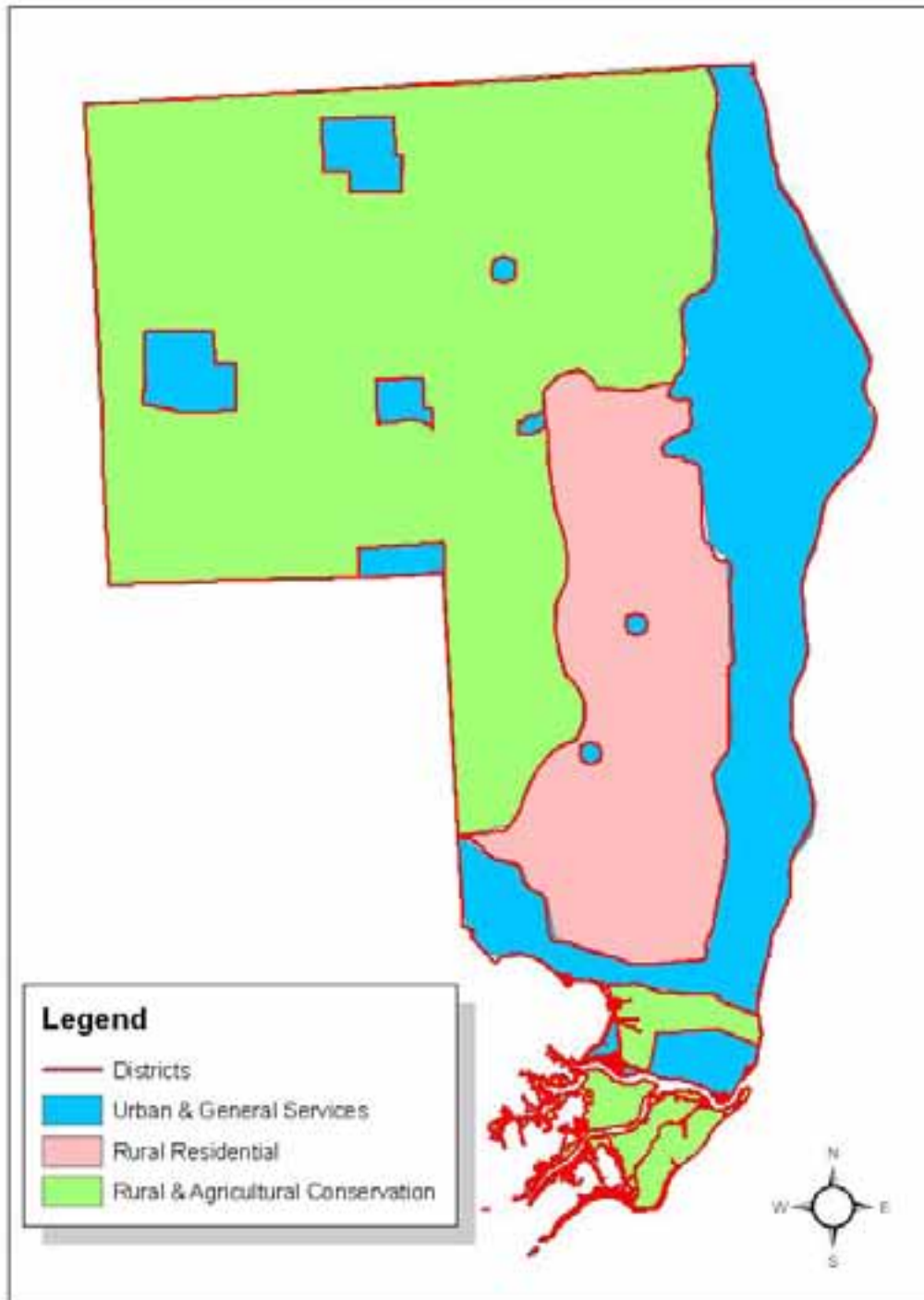
Much of the urbanized land in St. Clair County is located on the eastern, coastal border. The Metropolitan Planning Commission envisions this vicinity to serve as an area of development, due to its existing infrastructure. The County's scenic coastline attracts tourists every year for boating festivals and other events. The city of Port Huron in the northeast section of the County serves as a shopping and services hub for St. Clair County and neighboring Sanilac and Lapeer Counties. Prime agricultural land is mainly located in the western portion of the County.

2.2 St. Clair County Designated Districts

The St. Clair County Master Plan designates three countywide districts: The Urban and General Services District, The Rural Residential District and The Rural and Agricultural Conservation District (see Map 2.2). Each of these districts is intended to provide for and promote certain land uses. The districts represent the research and recommendations of the Master Plan.

Map 2.2

Saint Clair County Designated Districts



Source: St. Clair County Master Plan

Urban and General Services District



Source: SCC Metropolitan Planning Commission

The Urban and General Services District is located along the eastern and southern shore of the County, including the communities of Port Huron, Algonac and Marysville among others. This district includes areas of high-density residential, commercial, and in some cases, industrial uses. The County encourages communities to invest more in public infrastructure for this district, in hopes of supporting higher densities and a full range of public services in the future. Providing that potential developments are well planned and adequate public services are made available, this district has enough land to accommodate all residential, commercial, and industrial growth expected in the County between 2000 and 2020.

Rural Residential District

The Rural Residential district is located in the south-central portion of the County. It serves as a transition between the Urban and General Services District to the east and the Rural and Agricultural Conservation District to the west. Low-density single-family residential development is encouraged here. Farms will be preserved at first, but



Source: SCC Metropolitan Planning Commission

fewer resources will be devoted to agricultural preservation due to the presence of the Rural and Agricultural Conservation District. Since the district is in close proximity to neighboring counties, it is experiencing the beginning of sprawl according to St. Clair County's Master Plan.

Rural and Agricultural Conservation District



Source: SCC Metropolitan Planning Commission

The central and northwestern portion of the County is home to the Rural and Agricultural Conservation District. It is intended that the only residential development in this area will be for farm families and their employees. To avoid sprawling housing developments, density is preferred to be one residence per 40 acres. Houses will be clustered in lot sizes of one-half to three acres leaving large tracts of land for farming. People coming into this district are encouraged to move into existing communities and semi-urban centers, where infrastructure and public services are currently provided. The Rural and

Agricultural Conservation District is composed of twelve townships that become the focus of analysis throughout this study. The townships include, Mussey, Berlin, Greenwood, Lynn, Grant, Emmett, Clyde, Columbus, Kenockee, Wales, Riley, and Brockway.

2.3 Socioeconomic Profile

With the majority of its land in agriculture or open space, St. Clair County offers a rural haven away from the busy streets of Detroit and the ever growing suburbs of Macomb and Oakland Counties. The County's unique character attracted new residents and the demographics of the region began to change.

Population

Steady throughout the 1990's, population growth in St. Clair County remains faster than the regional average, but slower than Livingston County (see Table 2.1). St. Clair and Livingston Counties are comparable as they both border the primarily suburban counties that surround Wayne County - Macomb and Oakland Counties. Both St. Clair and Livingston Counties can be considered "third-ring," or metropolitan-fringe Counties, experiencing outgrowth from the Detroit metropolitan region. Also, major highways pass through both counties; I-94 and I-69 in St. Clair County and I-96 and US-23 in Livingston County.

Table 2.1 **Population and Housing Unit Estimates and Projections**

Place	2007 SEMCOG Population Estimate	Population Growth 1990 - 2007	Housing Unit Growth 1990 - 2007	Estimated Population Growth 2007 - 2030
Southeast Michigan	4,907,628	6.91%	15.29%	10.20%
St. Clair County	174,080	19.55%	27.36%	16.76%
Livingston County	189,106	63.52%	73.35%	59.21%

Source: SEMCOG

St. Clair County will grow not only in numbers but in age as well. According to SEMCOG, the median age of St. Clair County was 35.6 years in 2000 and is expected to rise to 39.9 by the year 2030. SEMCOG predicts the percentage of citizens over age sixty-five will increase by 9% in coming decades. Housing the elderly in St. Clair County's developed urban areas may be beneficial because retail and essential services already exist there and are in close proximity of one another. Also, keeping property taxes low by avoiding costly sprawl development will protect this and other economically vulnerable groups. According to the Michigan State Tax Commission the total State Equalized Value in St. Clair County was \$7,845,357,880 in 2005. Of that 1% was residential, 17% industrial, 8% commercial, 7% agricultural and 7% from other properties.

Table 2.2 shows that the Rural and Conservation Agriculture District is growing faster than the St. Clair County average in terms of population and housing units. For example, Emmett and Riley townships in the mid-Northwest section of the County, grew the fastest between 1990 and 2007, together adding 957 new housing units and 2,280 people. These townships also lost more active agriculture land than the County average between 1990 and 2000. SEMCOG predicts the Rural and Conservation

Agriculture District will grow faster than the County average between now and 2030, as the following chart displays:

Table 2.2 **Population Trends in the Rural and Agricultural Conservation District**

Place	2007 SEMCOG Population Estimate	Population Growth 1990-2007	Housing Unit Growth 1990 - 2007	Estimated Population Growth 2007 - 2030	Change in Active Agricultural Land 1990 - 2000	Change in Density (Units per Acre) 1990 - 2000
St. Clair County	174,080	19.55%	27.36%	16.76%	-6%	-15.08%
Berlin Twp	3,381	40.47%	50.81%	42.89%	-5%	-9.80%
Brockway Twp	2,092	30.64%	43.15%	33.78%	-5%	-13.04%
Columbus Twp	4,911	51.81%	62.66%	43.03%	-7%	0.00%
Grant Twp	1,907	57.60%	69.93%	24.86%	-4%	-12.50%
Greenwood Twp	1,684	62.39%	58.67%	19.12%	-3%	-8.89%
Kenockee Twp	2,641	42.45%	57.32%	52.22%	-7%	-14.81%
Lynn Twp	1,414	53.53%	51.91%	33.31%	-2%	-12.50%
Mussey Twp	2,362	54.38%	73.95%	27.14%	-5%	-11.11%
Riley Twp	3,387	57.24%	81.86%	51.17%	-8%	-16.33%
Wales Twp	3,336	45.42%	62.66%	27.79%	-7%	-16.67%
Emmet Twp	2,566	68.93%	78.52%	72.76%	-7%	-8.70%
Clyde Twp	5,600	10.85%	24.24%	14.36%	-3%	-6.45%

Source: SEMCOG

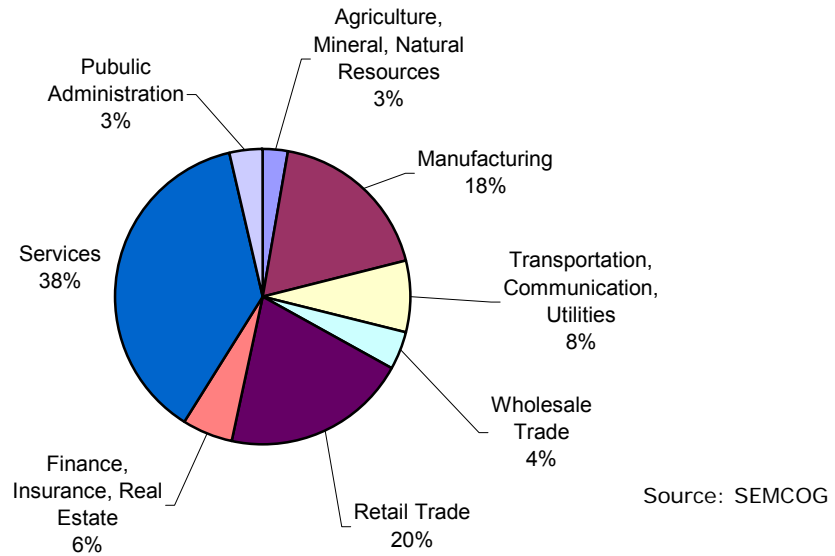
Education, Housing, and Employment

According to the 2000 Census, 13% of St. Clair County residents attained a bachelor's degree or higher, compared with 25% in southeast Michigan as a whole. In 2000, the County's median family income of \$46,313 was slightly less than the State median income \$53,457. However, more County residents owned their own homes than residents in southeast Michigan overall with 74% and 68% respectively. The median household value in St. Clair County was \$125,000, compared to \$136,500 in southeast Michigan for the year 2000.

Like southeast Michigan as a whole, the service sector accounts for the most jobs in St. Clair County. Though still a rural community in terms of land use, agriculture, natural resources and minerals make up only 3% of the labor force. SEMCOG predicts this sector, along with manufacturing will decline in coming years. Graphs 2.1 and 2.2 show employment by sector for 2000 in St. Clair County and Southeast Michigan.

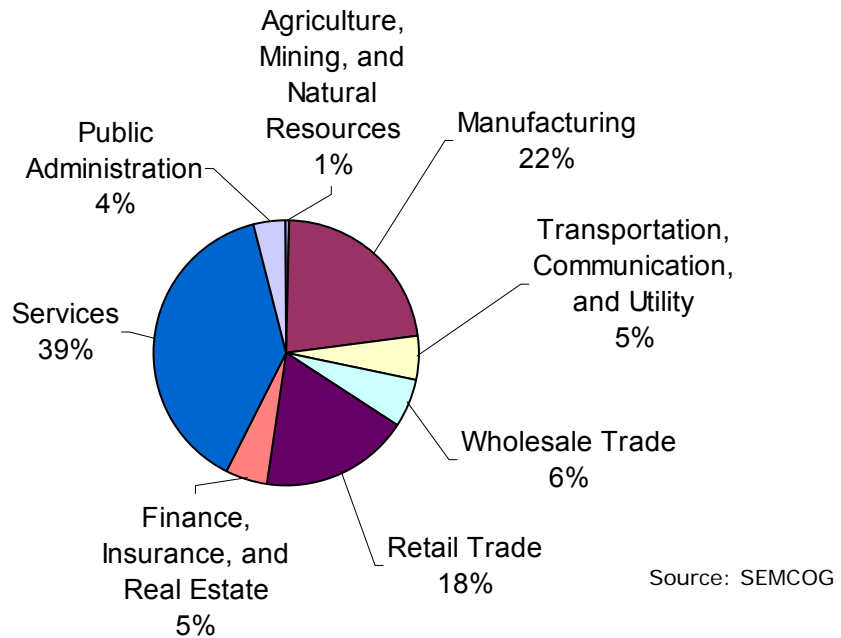
Employment by Sector – St. Clair County (2000)

Graph 2.1



Employment by Sector – Southeast Michigan (2000)

Graph 2.2



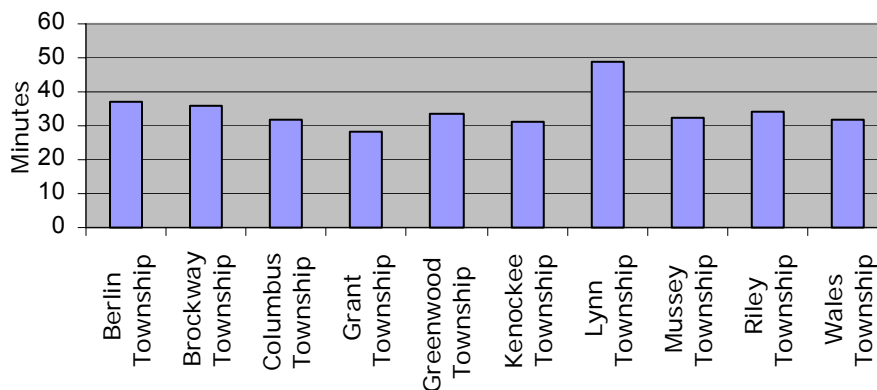
Creation of jobs could occur with recent developments in the County such as the Desmond Landing Development Project, a riverfront revitalization plan in Port Huron sponsored by Acheson Ventures, the relocated headquarters of SEMCO Energy, and the soon to be completed Marysville Ethanol Plant.

Median Travel Time

2000 Census data on travel time to work suggests that residents of the County's Rural and Agricultural Conservation District commute to employment centers in more urbanized locations (see Graph 2.3). In this district median travel times range from about 25 minutes in Grant Township to almost 50 minutes in Lynn Township. Nearly 45% of the workers who live in the County and do not work at home and travel twenty minutes or less to get to work. Nearly 84% of County commuters travel alone to and from work. Urban sprawl is contributing to longer commute times and increasingly congested road networks.

Graph 2.3

Median Travel Times to Work



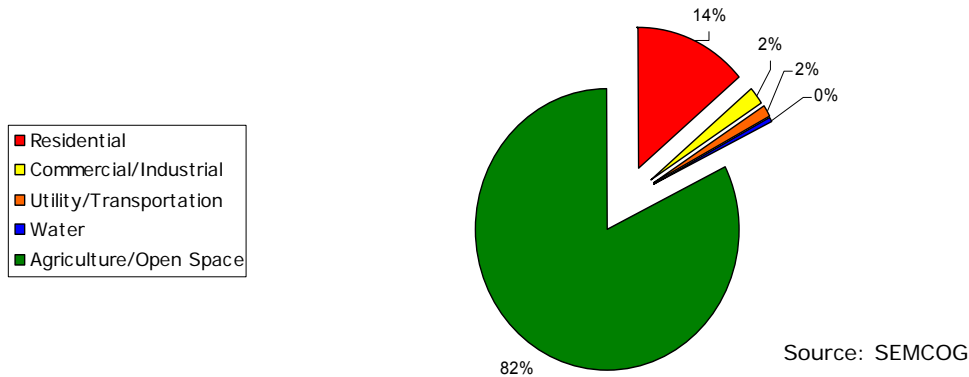
Source: 2000 U.S. Decennial Census

2.4 Land Use

The primary land use in the County is agricultural and residential, followed by commercial and industrial uses (see Graph 2.4).

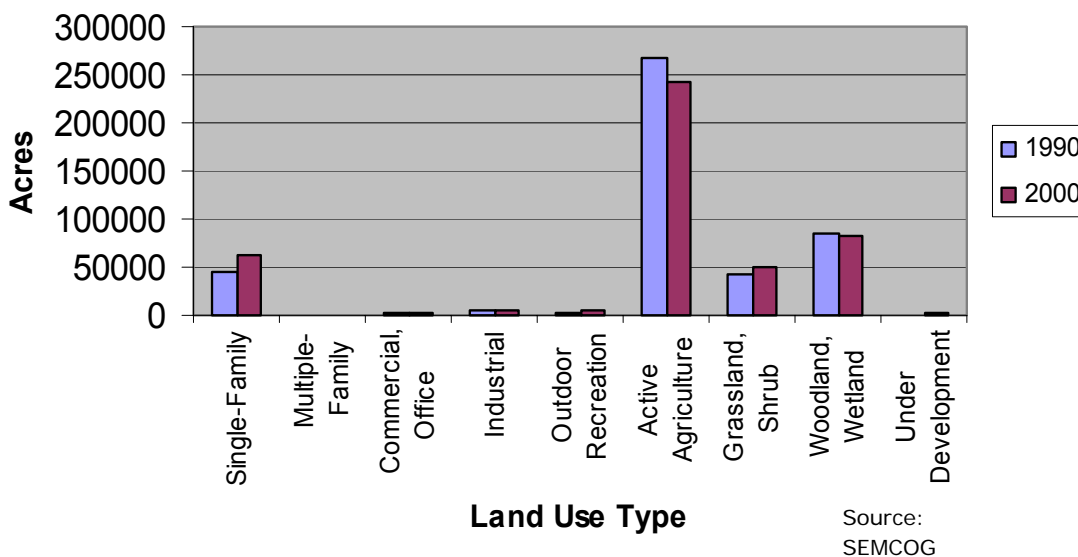
2002 St. Clair County Land Use

Graph 2.4



Trends within St. Clair County over the ten-year period of 1990 to 2000 show that single-family and multiple-family residential uses increased by 37.3% and 37.9% respectively. Undeveloped land uses changed in varying ways with a 26.7% increase in land used for outdoor recreation purposes and an 18.3% increase of land converted to grassland and shrubs. Active agriculture as well as woodland and wetland experienced decreases of 9.9% and 3.0% respectively while under development grew at 333.9%¹ (see Graph 2.5). Under developed land grew from 319 acres in 1990 to 1386 acres in 2000, resulting in a 1,067 increase in acreage.

Graph 2.5 Land Use Change St. Clair County, 1990-2000

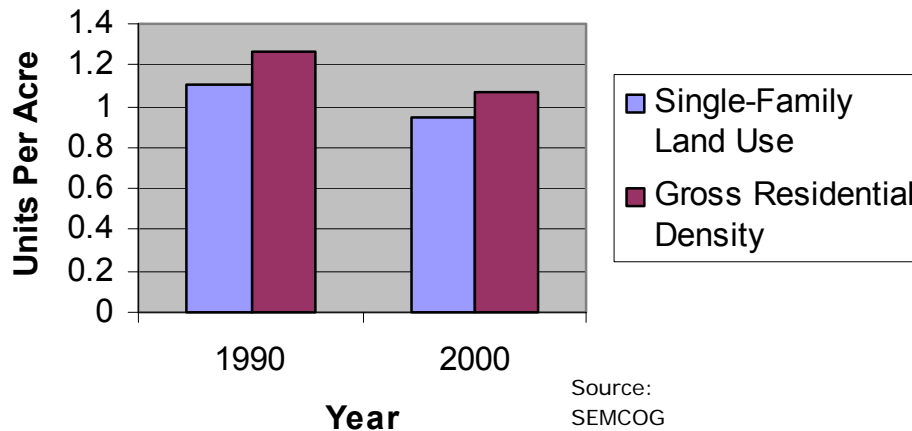


Increasing areas for outdoor recreation benefits the County by creating parks and preserving open space. Active agriculture's decrease coincides with an increase in grassland and shrub. Often it is a succession from agricultural land to open space that is produced in land change models. "This type of conversion is driven by either agricultural abandonment, or it is a step in the transition to developed land (Taylor, USGS Land Cover Trends)." Thus the increase in grassland and shrub could represent a strong development pressure that currently does not exist, but may be lurking around the corner.

The increase in single-family residential land use coincides with a decrease in housing density from 1.11 units per acre in 1990 to 0.95 units per acre in 2000 (see Graph 2.6). Gross residential density also decreased during this same time period. This shows a trend towards lower density, which is characteristic of urban sprawl. Such residential development patterns are not inline with the St. Clair County Master Plan.

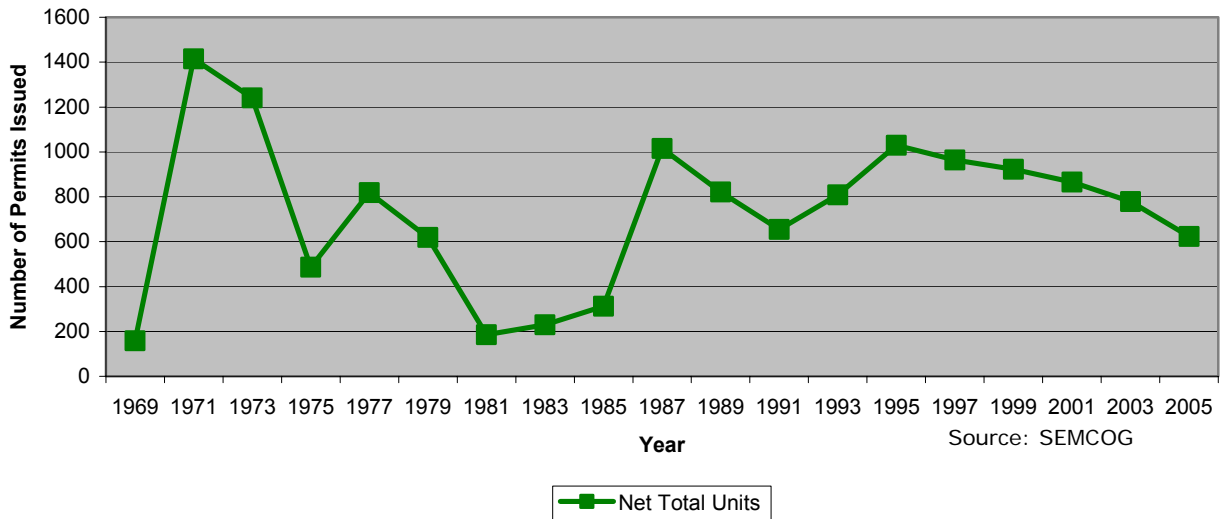
Residential Density St. Clair County, 1990-2000

Graph 2.6



Another indicator for land use change related to housing is the amount of building permits issued over time. While the County experienced growth early on in the 1970s and again in the mid 1990's, the last six years have shown a decline in building permits issued (see Graph 2.7). While the issuance of housing permits is decreasing, trends shown in Graph 2.6 indicate that the homes being built are spread out over a larger land area, again reflecting characteristics of urban sprawl.

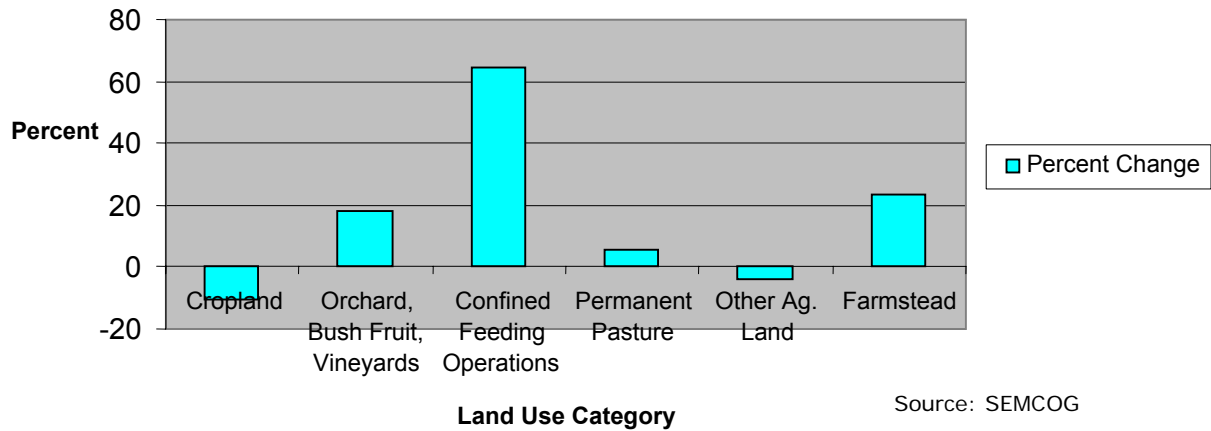
Graph 2.7 Net Total Housing Permits Issued for St. Clair County 1969-2005



Looking specifically at agricultural land uses, categories under agricultural land and farmsteads showed an increase from 1990-2000 (see Graph 2.8). Confined feeding operations grew extensively over the other categories, followed by farmstead growth. Farmstead growth depicts land used for buildings associated with active agricultural production; this includes grain storage facilities as well as farm gardens. An increase in this category may contain pieces that show greater increases in production from crop harvests; either from farm gardens, or storage facilities constructed to hold greater capacities. Farmstead change may also link to a loss in smaller farms, as larger farms develop within the County.

Graph 2.8

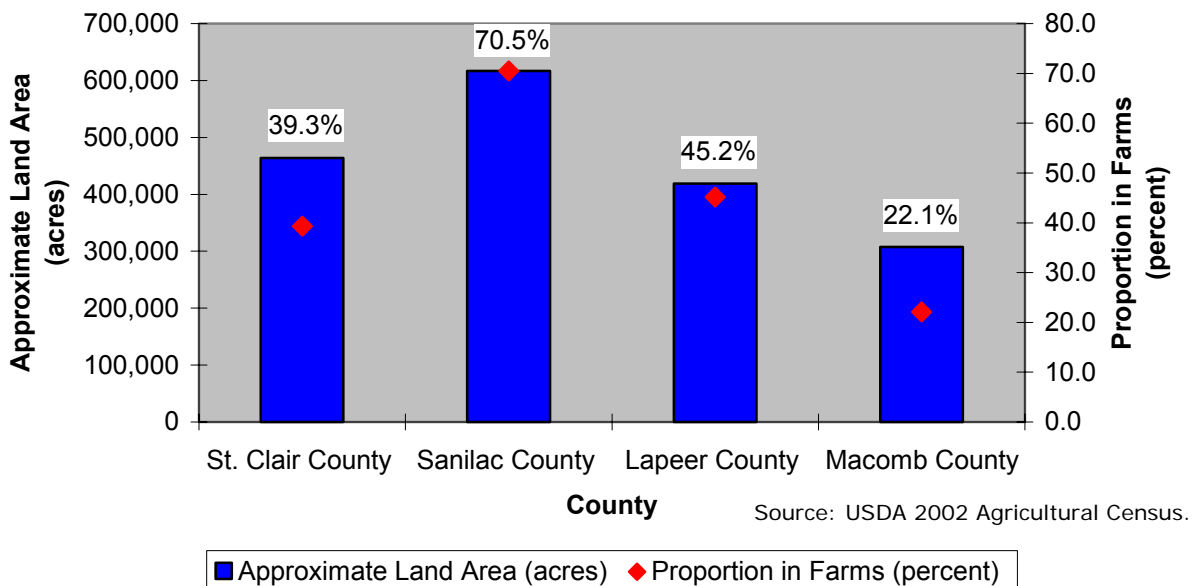
**Land Use Change in Ag. Land & Farmsteads,
St. Clair County, 1990-2000**



The level of land use dedicated to agriculture varies from one county to another. The amount of farmland in St. Clair and surrounding Counties is easily visible when comparing the percentage of land use in farms to the approximate total land in acres (see Graph 2.9).

Graph 2.9

Proportion of Farms in Land Area by Region



Graph 2.9 illustrates that St. Clair County contains the second largest percentage of farmland in the region with 39.3% of the 463,651 total acres in farmland. In comparison to the State of Michigan, with 27.9% of total acreage involved in farming, St. Clair County exceeds the State average proportion in farming by 11.4%.

2.5 Soils

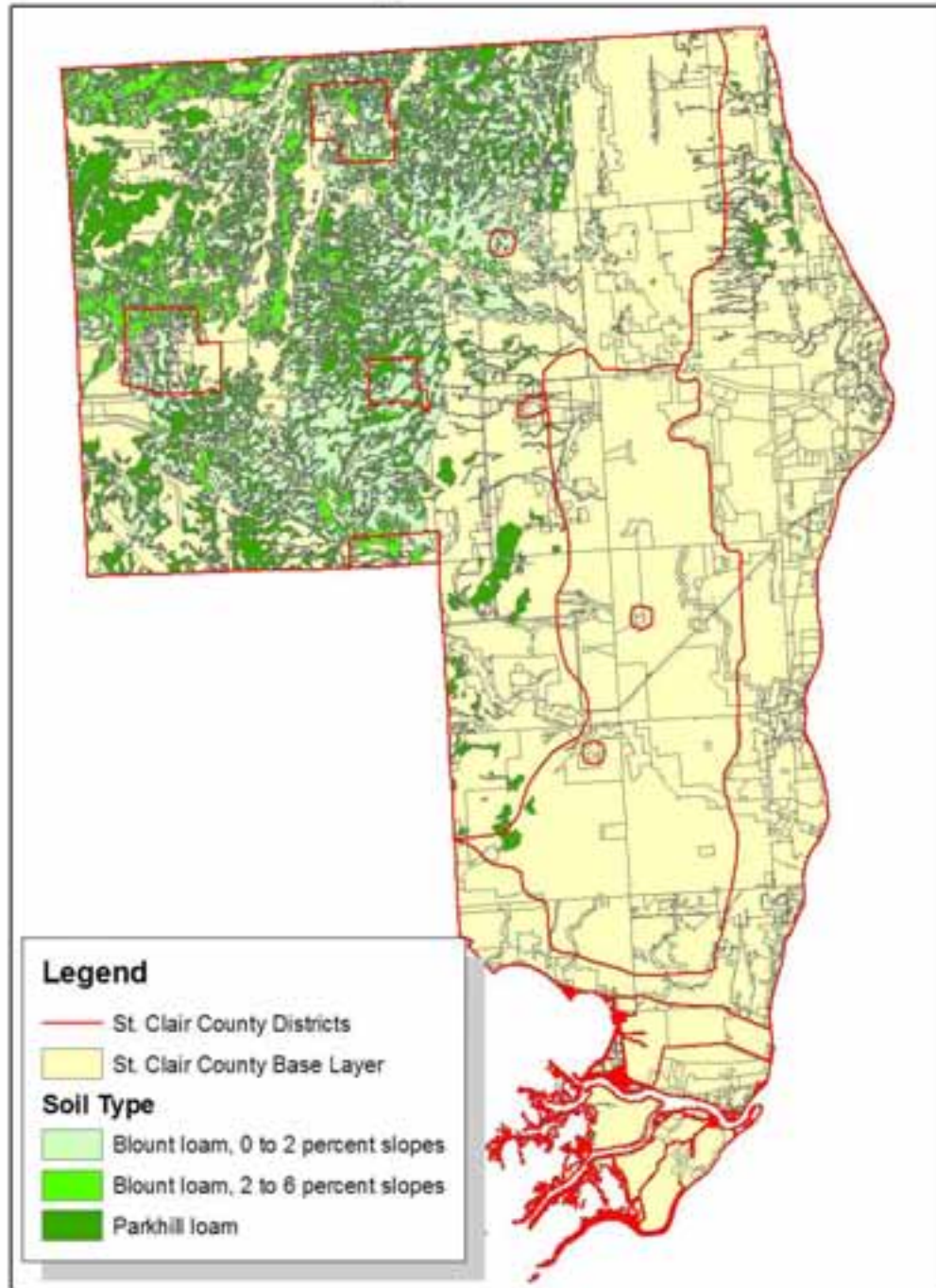
A contributing factor to St. Clair County's above average percentage of farmland may be the prime soils of the area, which are best suited for farming. According to the U.S. Department of Agriculture Soil Conservation Service, the western region of the County in the Rural and Agriculture Conservation District, contains the best farmland and soil.

In Map 2.3, the green areas identified as blount loam and parkhill loam are contained mostly in Lynn, Brockway, Greenwood, Mussey, Emmet, Kenockee, Berlin, Riley, Wales and Columbus Townships. According to the survey performed by the federal government, these soil types are described as, "Blount-Parkhill Association: Nearly level to gently sloping, somewhat poorly drained and poorly drained soils that have a dominantly loamy subsoil; on till plains."² The Blount Series soils are important to this region because the soil is generally ten inches thick with a 22-inch thick subsoil. The surface runoff is medium to slow allowing for a high water retention capacity, which adds greatly to the irrigation and overall health of the cropland in St. Clair County's Agricultural Preservation District (USDA Soil Cons. Svc., 1974, p.13). The green on the map represents the St. Clair County base layer and is not indicative of soil type. If this highly fertile and sensitive land were to fall to sprawling development patterns, it would be lost and unable to be converted back into productive land for any future generations.



Source: SCC Metropolitan Planning Commission

St. Clair County Prime Farmland Soils



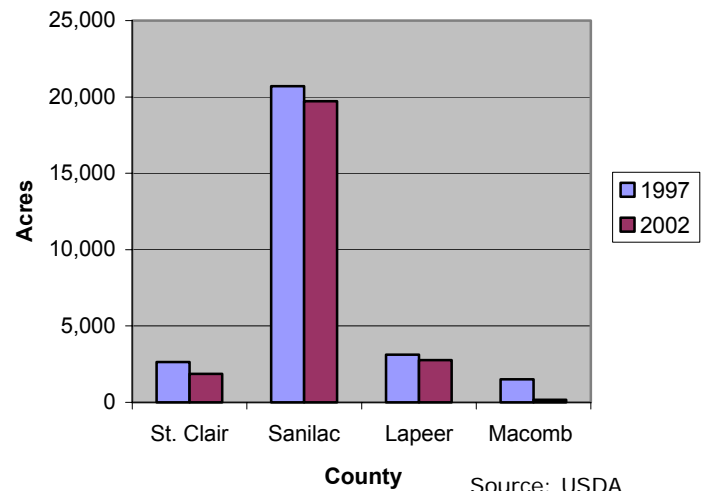
Source: USDA Soil Conservation Service

2.6 Conservation Lands

The enrollment of land in conservation programs is a vital aspect of farmland preservation. St. Clair County and its neighboring counties have experienced a loss of agricultural land that was once held in conservation or wetland reserve programs (see Graph 2.10). From 1997-2002, the State of Michigan lost 7.2% in total land acreage held in conservation or wetland reserve programs. During the same time period, St. Clair County showed a loss of 29%, more than four times that of the State average. As fewer landowners participate in conservation or wetland reserve programs, agricultural land becomes increasingly vulnerable to development.

Graph 2.10

Agricultural Land Under Conservation or Wetlands Reserve Programs (acres)



Source: USDA
Census 2002

Case Study 1: Washtenaw Land Trust

The Washtenaw Land Trust's main function is to protect farms, natural areas, and open space in Washtenaw, Jackson, and Ingham counties in Michigan. A land trust is a non-profit, non-governmental, charitable organization that helps interested landowners and communities discover methods to protect their land from over development. Through natural preserves, conservation easements, farmland protection, land transfers, and farmer assistance with Purchase of Development Rights programs, the organization has protected over 2500 acres of land. For more information on the land trust, see Appendix C.

2.7 Cost of Community Services

Each type of land use and various levels of development have different effects on a community's tax base. A Cost of Community Services (COCS) study examines the contribution of existing land uses to local tax revenues and expenditures. In these studies, land uses are placed into three broad categories: agricultural, residential, and commercial/industrial. Ratios are then determined by comparing annual revenues to annual expenditures for a community's unique mix of land uses³. The studies include three main steps, which come directly from the American Farmland Trust:

1. Collect data on local revenues and expenditures.
2. Group revenues and expenditures and allocate them to the community's major land use categories.
3. Analyze the data and calculate revenue-to-expenditure ratios for each land use category.

The American Farmland Trust profiled over 125 communities in the last twenty years, making it is easy to find a community to compare with St. Clair County. These Cost of Community Services studies suggest that residential development does not generate enough tax revenue to support itself. Open space and farmland may generate less revenue than residential, commercial, or industrial properties, but expenses are low, as they require little public infrastructure and few services. "In every community studied, farmland has generated a fiscal surplus to help offset the shortfall created by residential demand for public services (American Farmland Trust)."

To provide the reader with an idea of how these studies work, the following example displays a Cost of Community Services study of two neighborhoods in Frederick County, Maryland:

Cost of Community Services Example

Two neighborhoods are each 500 acres in size. Assume that the tax rate for all land is \$1 for each acre, so each neighborhood generates \$500 in revenue. This example uses actual data collected by Frederick County, Maryland on the costs of services for different land uses.

Ratio of Revenue Generated to Costs of Services in Dollars:

County	Residential including farm houses	Combined Commercial & Industrial	Farm/ Forest/ Open Space
Frederick	1:1.14	1:0.50	1:0.53

Source: American Farmland Trust, 1997

Neighborhood A: 400 acres of development occurred this year, of which all were residential. One hundred acres remained in farmland and open space.

Neighborhood B: 200 acres of development occurred this year: 125 acres were residential, 75 acres were commercial, and 300 acres remained in farmland and open space.

Neighborhood A: Cost of Services

400 ac. Residential Development x \$1.14	\$456
100 ac. Farmland and forest x .53	53
<u>Cost of Services</u>	<u>\$509</u>

Total Revenue	\$500
<u>- Cost of Services</u>	<u>509</u>
	\$ -9

Percent of Tax Revenue spent on community services: $509/500 = 101.8\%$

Note: THIS COSTS THE COUNTY MORE IN SERVICES THAN IT TAKES IN FOR TAXES

Neighborhood B: Cost of Services

125 ac. Residential Development x \$1.14	\$142.5
75 ac. Commercial Development x .50	37.5
300 ac. Farmland and forest x .53	159
<u>Cost of Services</u>	<u>\$339</u>

Total Revenue	\$500
<u>- Cost of Services</u>	<u>339</u>
	\$161

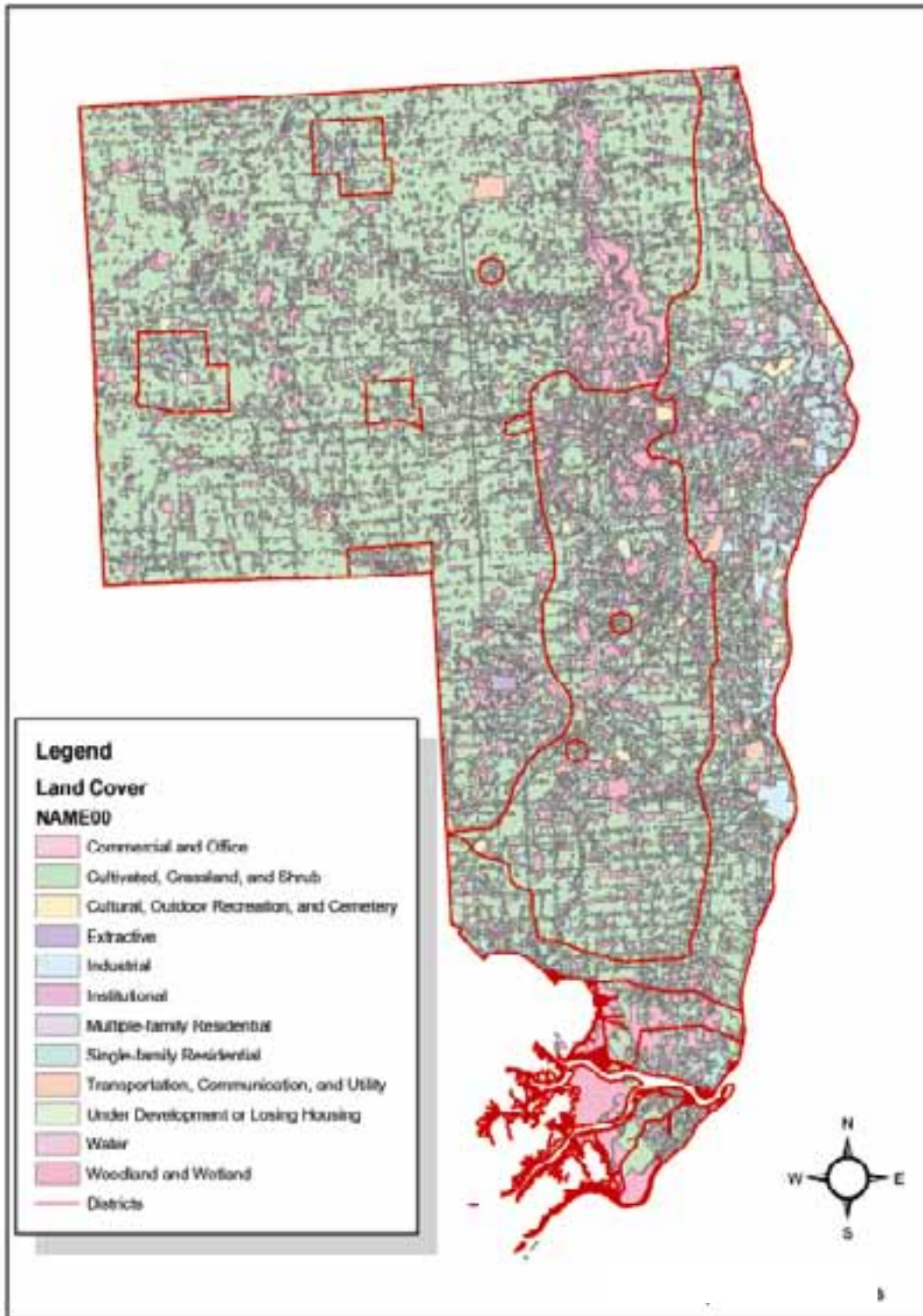
Percent of Tax Revenue spent on community services: $339/500 = 67.8\%$

Source: Maryland Department of Natural Resources

2.8 Land Cover

A land cover map is beneficial for gaining an understanding of the patterns of development throughout St. Clair County (see Map 2.4). Vast expanses of agriculture and green space, shown green on the map, dominate much of the landscape, while development represented by blue, predominates along the coast, within the Urban and General Services District. Farmland preservation could greatly increase if development were concentrated in the latter area.

St. Clair County Land Cover 2000



Source: St. Clair County Metropolitan Planning Commission

2.9 St. Clair County Government

St. Clair County is home to thirty-three units of government, comprised of twenty-three townships, seven cities, two villages and the County government. Such a separation of governmental units may complicate the planning process, especially at the regional level if there is too little coordination amongst townships and the County.

On April 19, 2000 the St. Clair County planning commission adopted the St. Clair County Master Plan, which is currently being updated. This plan emphasizes the necessity for regional planning in the County. Additionally, it outlines specific needs and goals as desired by the community.

2.10 Community Goals

The goals and objectives as related to farmland, rural character, agriculture, and open space preservation are listed in detail in the Master Plan:

Preserve Rural Character:

- Be aware of charm found in rural communities and scenes.
- Visit and shop in rural communities.
- Record and write histories.
- Preserve existing trees and plant more trees to enhance the view from roadways.
- Encourage residential developers to construct new houses that blend in with the rural & historical character of the land and existing houses, to build in cluster patterns that preserve open space, honor natural land forms, and plan for land use density that compliments established villages and townships.
- Write governmental policies to prohibit neon signs and billboards that mar daytime vistas and direct electrical light skyward
- Acquire more land for public use, especially land that offers special environmental features and benefits

Protect Farmland:

- Join the current conservation movement and establish countywide farmland protection programs, then work with state and national policy makers to create regional financial support for those systems.
- Demonstrate to local communities that, while a residential tax base produces more revenue than an agricultural tax base, the cost of providing public services to an overly large population creates tax deficit.
- Encourage state legislators to alter property tax laws for the benefit of farmers so they can continue to produce food.
- Creatively explore and try new and innovative farm conservation ideas.

Source: St. Clair County Master Plan

Create Parks for Present and Future Needs:

- Buy, if necessary, and set aside land for parks. Then preserve that land regardless of the temptation or incentive to use it for something else.
- Look for ways to connect even a small spot of land to a non-motorized linear trail.
- Include historical, ecological, and agricultural resources into recreational experiences. People in St. Clair County say they want to preserve rural character; then it is beneficial for people to know, feel, hear, and smell what rural character is like.

Sustain the Health, Diversity, and Extent of Natural Resources:

- Use natural features, such as trees, topography, and open space, as buffers to reduce noise, visual blight, and other land use conflicts.
- Use land development techniques, such as cluster housing, to preserve natural resources and features.

Protect Viable Farmland While Accommodating Nearby Land-Use Change:

- Encourage farmers to participate in farmland and agreements under the Farmland and Open Space Preservation Act, where and when appropriate.
- Use the full range of regulatory tools and agricultural techniques to preserve and maintain prime farmland.
- Clearly define and zone to protect agricultural areas by steering urban growth away from farmland.
- Prevent extension of urban services and utilities into farmland areas. Invest in infrastructure that supports agricultural activities, such as crop storage facilities, in farmland areas.
- Minimize non-agricultural land uses within agricultural areas. If necessary, provide buffer zones between incompatible land use activities.
- Work with or support agricultural preservation organizations. Educate urban and rural residents about farmland's economic and aesthetic value.
- Perform farming activities that are compatible with surrounding residential conditions. For example, truck farming, orchards, nurseries, and sod farms can better withstand residential pressures than can dairy, livestock, and cash grain farms.
- Preserve and revitalize existing communities. Encourage redevelopment and utilization of existing brownfields.

Preserve Agriculture as an Economic Component:

- Identify County areas where agricultural business can be sustained well into the twenty-first century.
- Work with agricultural groups and governmental agencies to increase public awareness of the value of farming and, thus, encourage people to support local farmers, especially those who grow produce that can be sold to local customers.
- Work with these same groups and agencies to develop programs that will protect and advance agribusiness.
- Involve local government officials, especially those who make land use decisions, so they will better understand the value of preserving farmland from sprawling residential development.
- Involve the general public, especially those who are prone to move to the country, so they
mers were there first and have an inherent right to continue their occupations.

Source: St. Clair County Master Plan

- Work with State and Federal government agencies to create property tax programs that are beneficial to farmers who want to continue to work with their land
- Farmland preservation and sustained agribusiness are also directly linked with urban revitalization. Therefore, government officials at all levels, and urban business leaders must work together to revitalize cities and make urban areas more attractive places to live and work.

Plan Parks and Open Space for a Growing Population

- Set aside recreational space in less developed areas.

Source: St. Clair County Master Plan

2.11 Difficulties in Implementing Community Goals

Four main factors, as stated in the Master Plan, make it difficult to implement the goals of St. Clair County:

1. Inadequate planning leadership at the state level
2. A highly-mobile population
3. Autonomous government policy-making bodies at the County and local level
4. Inconsistencies in local master plans and zoning ordinances

Inadequate Planning Leadership at the State Level

The State of Michigan has limited abilities with which it can plan. The State agrees with planning ideology, but lacks in policy implementation. The following are specific elements for which the state has not structured legislation, as drawn from the St. Clair County Master Plan:

- ❖ Mechanisms to control the quality of required studies, plans, or regulations prior to adoption
- ❖ Mandated intergovernmental cooperation
- ❖ Enforcement of planning issues
- ❖ Methods to determine effectiveness of environmental protection efforts, local planning or economic development.

The main problem here is that only small areas such as townships have defined roles for planning, while large areas do not. Thus, planning implementation at both the state and regional level is difficult.

Highly Mobile Population

People in St. Clair County tend to frequent many jurisdictions in the same day. They send their children to a school in one jurisdiction, while they may work in another, and shop in a third. This means that people living in one city or township

may have an effect on other regions as well. Local officials must take this into account when planning for the future. Realizing the effects neighboring jurisdictions can have on one another, importance should be placed on cooperative planning at the regional level, as suggested by the County's Master Plan.

Autonomous Government and Policy-Making Bodies

The number of autonomous governmental jurisdictions within St. Clair County complicates regional planning, according to the Master Plan. Each governmental entity carries out planning according to separate sets of responsibilities based on individual community standards. Local governments are not required to include surrounding entities within their planning process, which can create rifts between neighboring townships and the structure of their zoning ordinances. Too little communication, if any, between townships and the County government has led to lack of coordination of public service projects funded by the County.

Inconsistencies within Local Plans and Zoning Ordinances

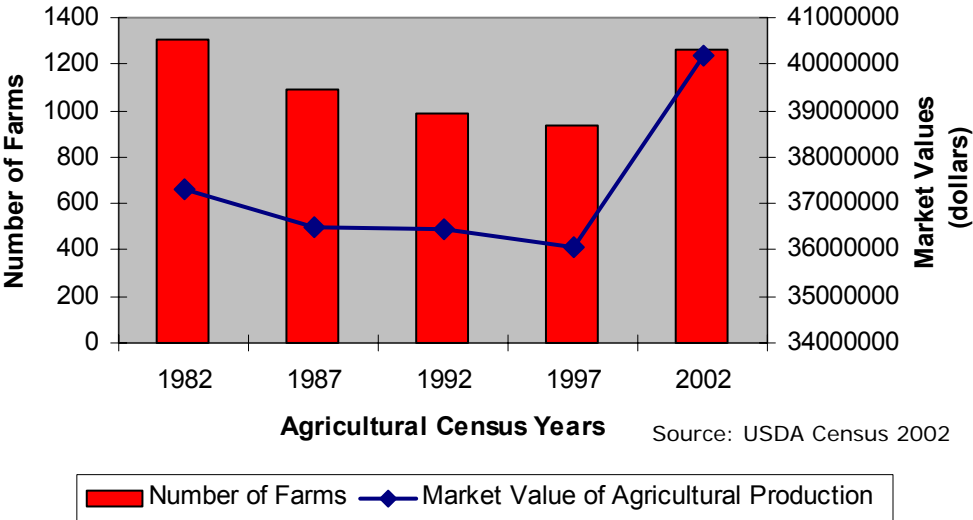
Each local jurisdiction of St. Clair County has both a Master Plan and a zoning ordinance. The master plans usually favor agricultural preservation, while zoning ordinances tend to provide for development opportunities in agricultural areas. Attempts made to save farmland may be hindered due to these conflicting documents.

3. Agricultural Trends

Farming is one of the oldest and most important industries in St. Clair County. According to the County Master Plan, agriculture dates back to the late 1600s and early 1700s, when the County was part of the French trading regions of the Great Lakes. The Master Plan outlines the drastic reduction in farming and agriculture during the last 75 years of the twentieth century. Recent federal agricultural censuses show St. Clair County has lost farms and continuing trends predict even more loss in coming years. Exploring St. Clair County’s agricultural statistics and figures provides an overview of farming trends in the County.

In 1982 St. Clair County contained 1,302 farms with an annual market production value of \$37.3 million dollars (see Graph 3.1). By 2002, the number of farms in St. Clair County dropped to 1,260, with an increased annual agricultural market production value to \$40.2 million dollars (the increase does not reflect inflation). This displays on average, a nearly \$4,000 increase in the market value of agricultural production per farm within the County, even though there was a decrease in the total number of farms. However, the most recent trend between 1997-2002 shows a dramatic increase of \$4,130,020 in market value. The number of farms also increased during the same time period by 320 farms. The years 1997-2002 show a deviating trend from the previous 15 years for undetermined reasons. The 2007 Agriculture Census should be reviewed to determine if this is a continual trend.

Graph 3.1 **St. Clair County Farming Trends**





3.1 Top Ten Agricultural Products

Traditionally, St. Clair County has been a producer of corn, soybeans, dairy products, cattle, vegetables, hay, and other livestock commodities such as hogs and pigs. The top ten Agricultural products for St. Clair, Lapeer, Macomb and Sanilac Counties as well as the State of Michigan can be found in Table 3.1 and were determined by total market value of the product.

Source: SCC Metropolitan Planning Commission

Table 3.1 Top 10 Agriculture Products

Ranking In Ag. Production	State of Michigan	St. Clair County	Lapeer County	Macomb County	Sanilac County
1	Corn	Corn	Corn	Nursery, Greenhouse Crops	Corn
2	Soybeans	Soybeans	Soybeans	Corn	Soybeans
3	Dairy Products	Nursery, Greenhouse Crops	Dairy Products	Soybeans	Wheat
4	Wheat	Dairy Products	Vegetables, Melons, Potatoes, Sweet Potatoes	Vegetables, Melons, Potatoes, Sweet Potatoes	Dairy Products
5	Other Crops (sugar crops, dry beans, dry peas, etc.)	Cattle, Calves	Nursery, Greenhouse Crops	Wheat	Cattle, Calves
6	Hay, Silage, Field Seeds	Other Livestock, Livestock Specialties	Cattle, Calves	Cattle, Calves	Nursery, Greenhouse Crops

Source: 2002 USDA Ag. Census

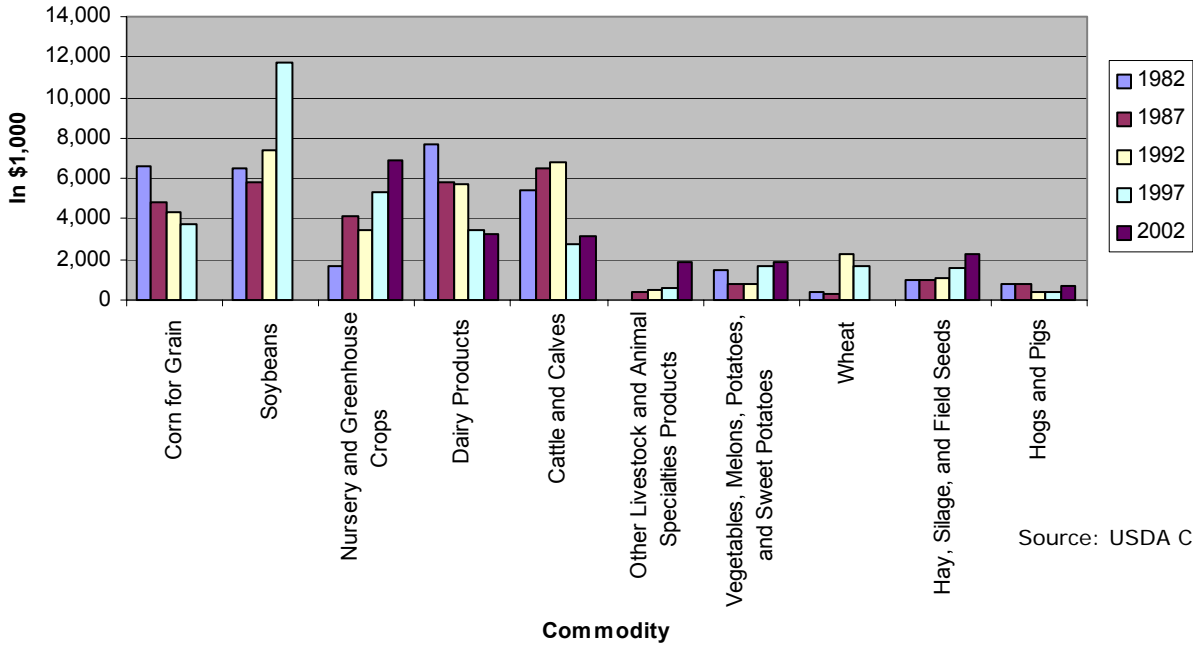
Ranking In Ag. Production	State of Michigan	St. Clair County	Lapeer County	Macomb County	Sanilac County
7	Nursery, Greenhouse Crops	Vegetables, Melons, Potatoes, Sweet Potatoes	Wheat	Fruit, Tree Nuts, Berries	Oats
8	Vegetables, Melons, Potatoes, Sweet Potatoes	Wheat	Hay, Silage, Field Seeds	Dairy Products	Other Crops (sugar crops, dry beans, dry peas, etc.)
9	Cattle, Calves	Hay, Silage, Field Seeds	Poultry, Poultry Products	Hay, Silage, Field Seeds	Hay, Silage, Field Seeds
10	Hogs, Pigs	Hogs, Pigs	Other Crops (sugar crops, dry beans, dry peas, etc.)	Other Livestock, Livestock Specialties	Hogs, Pigs

Source: 2002 USDA Ag. Census

The top ten agricultural products within St. Clair County have experienced various trends over the past 25 years. Some products experienced decreases (corn for grain, dairy products, wheat), while others after experiencing losses displayed an increase in 2002 (cattle and calves, hogs and pigs). Graph 3.2 on the next page displays these trends. Figures for corn, soybeans and wheat are not available individually for the year 2002⁴.

Market Value of Top Ten Ag. Products in St. Clair County 1982-2002

Graph 3.2

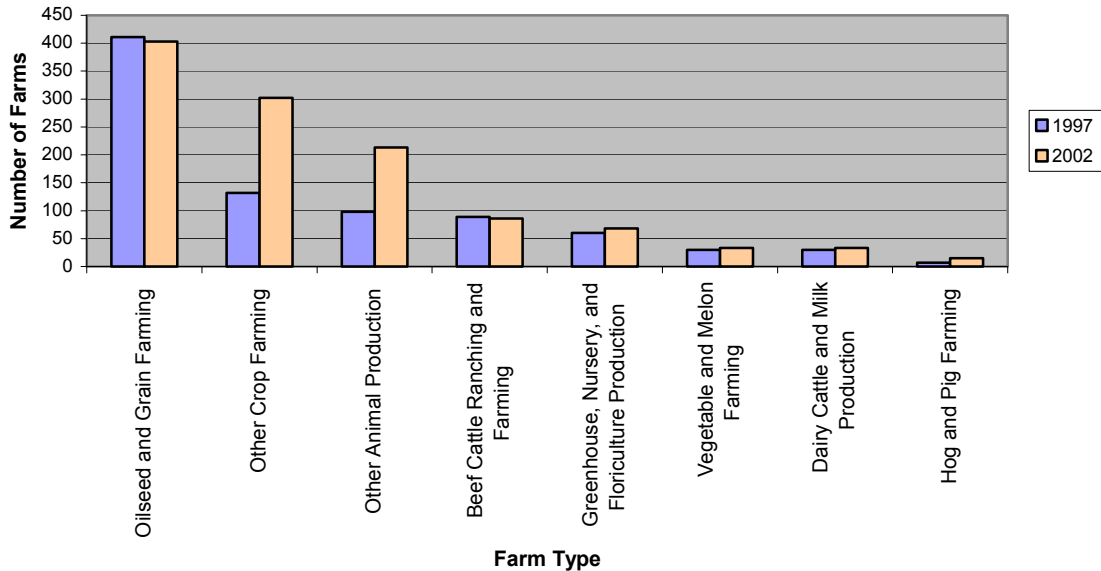


Source: USDA Census 2002

Over the last 20 years, production in nursery and greenhouse products greatly increased. Rising from \$1,680,000 in sales in 1982, to over \$6,929,000 in sales in 2002, nursery and greenhouse products have seen a growth of nearly 412%, or 20.6% annually. This is particularly important for St. Clair County, because neighboring Macomb County is the leading producer in the State within the nursery and greenhouse crops commodity group. Macomb County has annual profits amounting to over \$23.5 million dollars in production. The success of this industry in Macomb appears to be expanding into St. Clair County allowing more farmers to enter the profitable market of nursery and greenhouse commodities.

Farms in North America are categorized by the North American Industrial Classification System (NAICS), which determines the farm type by commodity groups. Currently, figures for this classification system are only available for 1997 to 2002 for St. Clair County⁵. Graph 3.3 shows the number of farms per commodity group for the top ten agricultural products in St. Clair County. In section 3.3, the correlation between an increase in the number of farms by commodity group and the increase in farms displaying net losses in 2002, will become apparent. Competition in increasing farm numbers per commodity may be responsible for a portion of the number of farms displaying net losses.

Graph 3.3 Farms by North American Industrial Classification System, St. Clair County 1997-2002

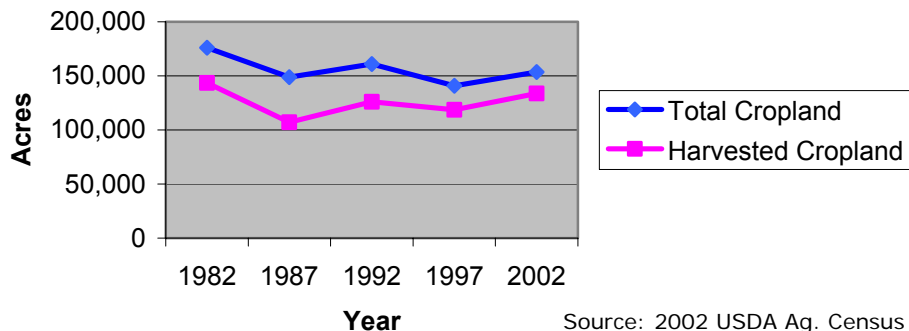


Source: USDA Census

3.2 Land in Farms

St. Clair County has shown an overall decreasing trend for total cropland in farms from 1982-2002. Graph 3.4 shows fluctuations over the last 20 years resulting in a total loss of 12.8%. A downward shift of 12.6% is visible beginning in 1992 and ending in 1997. More recently, from 1997 to 2002 total cropland increased by 9.2% and this may signal a positive trend for agricultural production and conservation. Harvested cropland trends over the 20-year period follow the patterns of total cropland very closely, with similar increases and decreases in each census year.

Graph 3.4 Land In Farms According to Use In St. Clair County 1982-2002

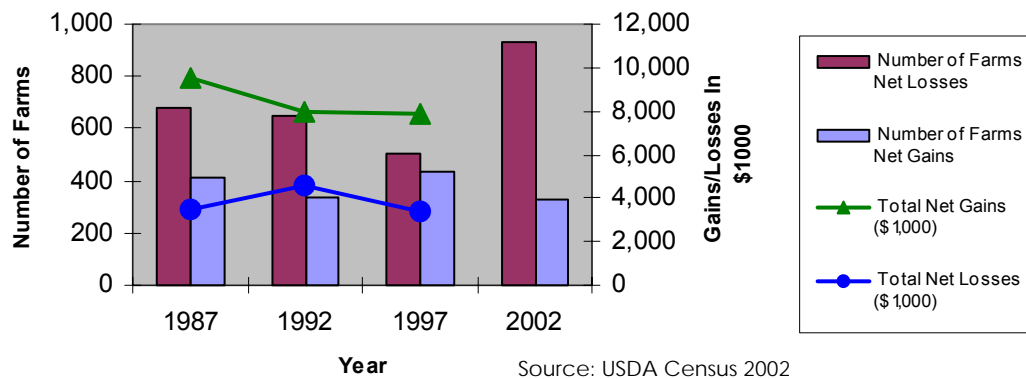


Source: 2002 USDA Ag. Census

3.3 Agricultural Sales, Loans, and Payments

Reviewing the net cash return of farms provides insight into the strengths and weaknesses of the County's farming economy. Net cash return for St. Clair County is an indication of "... value for the operators' total revenue (fees for producing under contract, total sales not under contract, government payments, and farm-related income) minus total expenses paid by the operators. Net cash farm income of the operator removes the value of the contract commodities produced and acknowledges income received for services performed for the contractor."⁶ Net cash return is broken down into two discernable categories, net gains and net losses. Net gains also include farms that break even between revenue and expenses.

Graph 3.5
Net Cash Return From Agricultural Sales for Farm Unit
St. Clair County 1987-2002

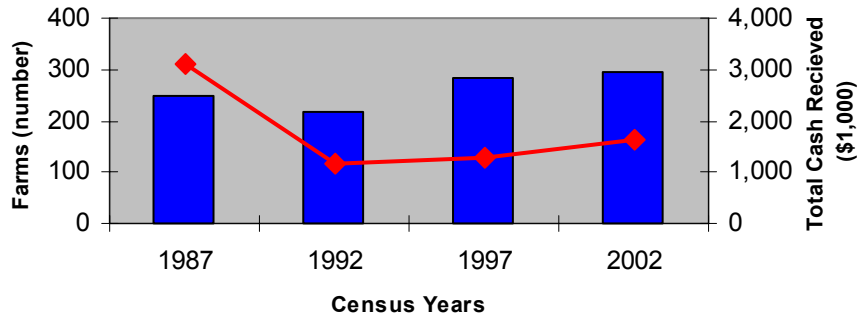


In St. Clair County the number of farms with net losses increased between 1997 and 2002 (see Graph 3.5).⁷ In 1997, 435 farms experienced net gains in 1997, but by 2002 this number decreased by 23.7%. Total net gains in dollars of agricultural sales steadily decreased from 1987 to 1997. Conversely, total net losses in dollars experienced an increase of 32.5% in 1992, however, this was followed by a decrease in 1997. Many factors can come into play in the determination of these net gains and losses including weather and seasonal growing conditions, as crop survival rates play an integral role in a single years harvest figures. However, these trends, especially the number of farms experiencing net losses, may provide concern for the health of the agricultural economy in St. Clair County.

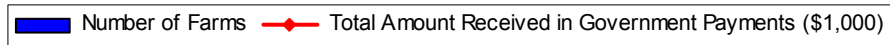
Farmers experiencing net losses might look to government funding and loans to alleviate economic pressures. Government payments are direct cash payments made to farmers and include, disaster payments, loan deficiency payments, payments for Conservation Reserve Programs, Wetlands Reserve Programs, and all other conservation funds received.⁸ Graph 3.6 depicts the figures for the net cash received from the government in direct payments.

Government Payments Received for St. Clair County

Graph 3.6



Source: 2002 USDA Ag. Census

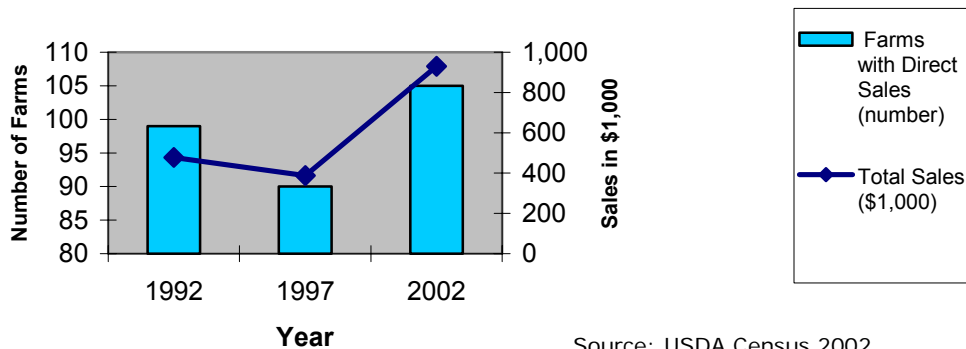


Government payments include funding for conservation and wetland reserve programs, and as shown in Graph 2.9, St. Clair County experienced a 29% decrease of acreage held in these programs in 2002. However, in the same year, government payments continued to increase in the number of dollars, and the number of farms receiving payments (see Graph 3.7). Therefore, it can be inferred that government funding in St. Clair County is being used for disaster payments and loan deficiency payments rather than conservation funding. An increase in loan deficiency payments to farmers would equate to a less than healthy farm economy.

Direct sales of agricultural products to individuals for human consumption refers to roadside stands, farmers markets, wineries, cider mills, livestock auctions, internet businesses and any other type of direct marketing. From 1992-2002, there were slight fluctuations in the number of farms participating in direct sales, which resulted in a high of 105 farms by 2002 (see Graph 3.7). However, the 140.3% increase in total sales during the same time period far outweighs the change in number of farms. It would appear that although the number of farms has not dramatically increased, the commodities being marketed directly to the consumer are creating much greater sales. It may be beneficial for farmer's to determine the commodities produced and the markets used for sale by the farms displaying the greatest amount in total sales.

**Value of Agricultural Products Sold Directly to Individuals,
St. Clair County 1992-2002**

Graph 3.7



Source: USDA Census 2002

3.4 Summary of Agricultural Trends

- ❖ Total farmland in St. Clair County has declined since 1982, but cropland and harvested cropland grew between 1997 and 2002.
- ❖ The number and market value of farms decreased steadily between 1982 and 1997, then jumped between 1997 and 2002.
- ❖ The top agriculture product in St. Clair County in 2002 was corn, but nursery and greenhouse crops gained the most market share between 1997 and 2002.
- ❖ Direct sales of agriculture products grew strongly between 1997 and 2002.
- ❖ Between 1992 and 2002, the amount of annual government payments remained between \$1,000,000 to \$2,000,000 and the number of farmers receiving funds ranged from 250 to 300 farms.
- ❖ The number of farms is on the rise, however, more farmers are losing money.

4. Current State of Farmland Preservation in St. Clair County

This section focuses primarily on the Townships located in the County's Rural & Agricultural Conservation District. The Southeast Michigan Council of Governments predicts that seven townships within this district will see the fastest growth in the County over the next twenty years⁹. In order to curb development in the Rural and Agricultural Conservation District, as envisioned by the Master Plan, farmland preservation techniques will play a key role in maintaining its character. At the local level, three main options exist for farmland preservation within St. Clair County (more detail on these tools can be found in the Agricultural Land and Open Space Preservation Toolbox in section 4.1).

1. Zoning Ordinances

All of the townships exercise the power to zone, and generally offer some varying degree of agriculture zoning. However, as the zoning ordinance analysis will show, several local zoning ordinances could be strengthened to more effectively protect farmland.

2. St. Clair County Purchase of Development Rights (PDR) program

In 2003, St. Clair County passed legislation allowing for Purchase of Development Rights (PDR) agreements, which permanently preserves farmland. The County describes these agreements as "a voluntary program in which landowners agree to sell the right to develop in return for a cash payment." However, at this time no farms in the County participate in the program. Two major obstacles facing the St. Clair County Purchase of Development Rights program are:

1. Six local governments, located within the Rural & Agricultural Conservation District have not passed resolutions supporting the County program, which denies landowners in those communities the opportunity to participate (see Map 4.1).
2. Currently, no local money exists to support the program. Financing must come from limited state and federal grant funds. The competitive nature of these funds makes them difficult to obtain without countywide support.

Case Study 2: Saving Unique Land in Sauk County, Wisconsin through Purchase

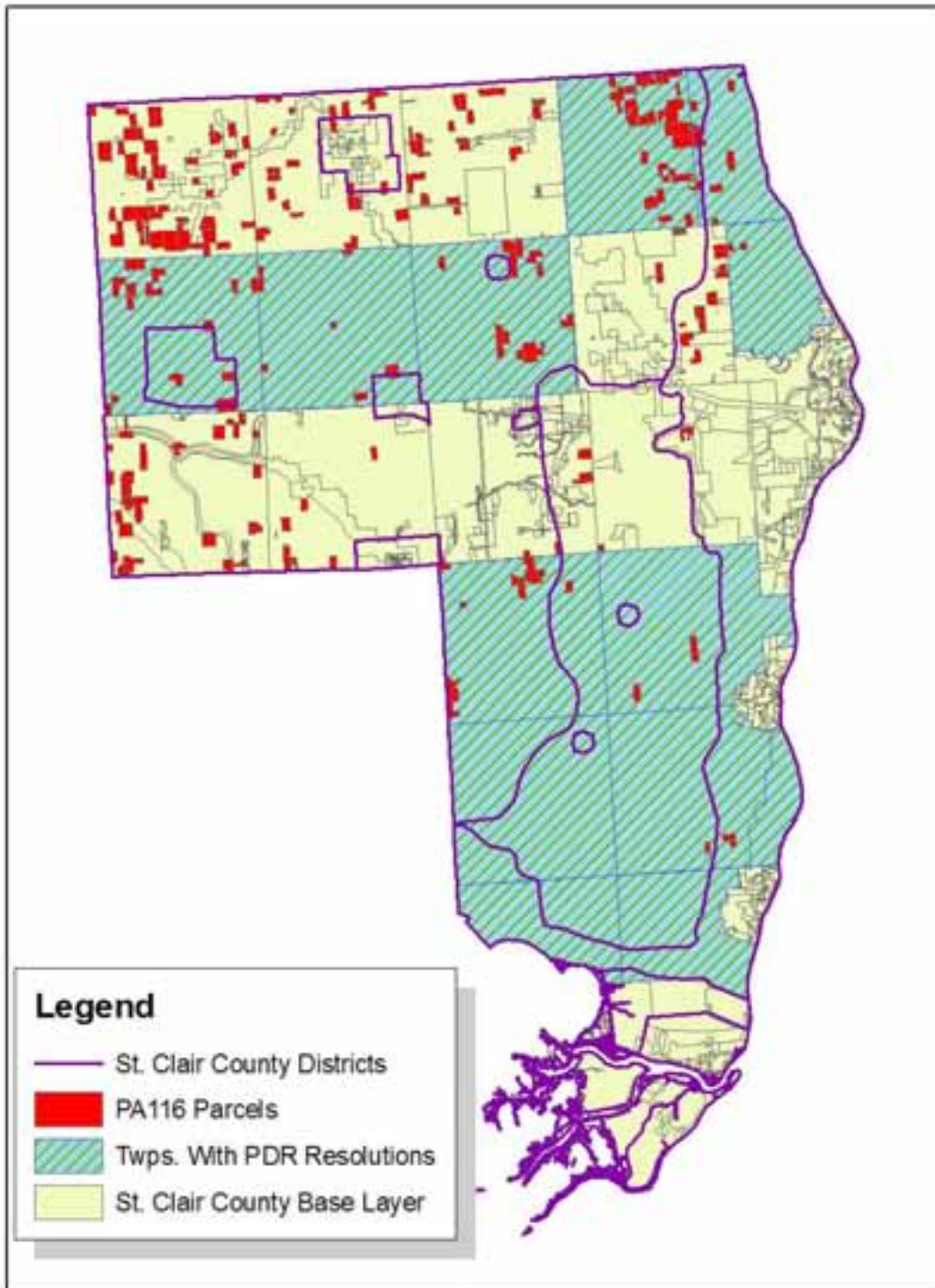
Sauk County in southwestern Wisconsin used a Purchase of Development Rights (PDR) Program to protect over 2,000 acres of its unique, ecologically diverse forestland. The County government and community purchase de

velopment. The purchase of multiple parcels is an example of combining multiple funding sources to protect open space and avoid untimely development. Trying to obtain funds from historic preservation grants or other unusual funding sources for farmland preservation may prove beneficial for St. Clair County. For more information on PDR's in Sauk County, see Appendix C.

3. Michigan Farmland Preservation Program (P.A. 116)

Michigan Public Act 116 is a program farmers can enter into as a means of limiting development on their property in exchange for tax-incentives. The program is short term, with easements ranging in length from 10 to 99 years. There are a total of 338 parcels enrolled in the P.A. 116 program in St. Clair County and the average size per parcel is 89 acres. The total amount of acreage protected through P.A. 116 in the County is 30,076 acres. Parcels currently enrolled in Michigan P.A. 116 can be found on Map 4.1. While farmers do participate in this program, the contracts will eventually expire at varying points in time, placing the parcels at risk for development.

Current State of Farmland Preservation



Source: St. Clair County Metropolitan Planning Commission

4.1 Agricultural Land and Open Space Preservation Toolbox

There are a number of tools available for farmland protection, have strengths and weaknesses. The following is an overview of mechanisms that can be employed to preserve farmland and open space.

Comprehensive Planning: Master plans envision a community's future goals in terms of land use, economic development, environmental protection, and other aspects of development. Master plans do not carry the legal force of zoning ordinances, however, zoning ordinances can further the goals of the master plan.

Zoning: A legal mechanism to control land use, zoning gives local governments in Michigan the power to decide where commercial, residential, industrial, and agricultural land uses occur. In theory, land in agricultural zones should stay rural in perpetuity, but ordinances may be amended to allow for other uses.

Conservation Easement: A voluntary arrangement between landowners and another party, easements legally limit the use of a particular parcel of land. Farmers can enter into a contract with a government agency, conservation organization, or land trust restricting the property from uses other than agricultural. Conservation easements run with the land in perpetuity, thus subsequent landowners must legally follow the outlines of the conservation easement.

Purchase of Development Rights (PDR) Programs: Purchase of Development Rights programs allow parties to buy the rights to develop a parcel of land. The contract mandates that the land stay undeveloped indefinitely, but still allow for viable economic uses. Private individuals, governments, and non-profit organizations such as land banks, can purchase these rights and protect farmland from development. Purchasing development rights can prove expensive, so with limited financial resources, regions should prioritize the development rights they wish to purchase according to a) the best, most productive farmland, b) based on geographic trends, and c) the farmland most threatened by development.

Transfer of Development Rights (TDR): Transfer of Development Rights is a growth management tool that has been used throughout the United States. The success of TDR programs is debatable at many levels usually due to the complex nature of the programs, and, at present, no enabling legislation exists in Michigan to allow for the implementation of such a program. Proof has been documented that a properly structured program will lead to success in conservation of land (see Case Study 4).

TDR programs establish "sending areas" where land is to be conserved through the sale of development rights, and "receiving areas" where development rights can be transferred to create higher density development than would be previously allowed. "Sending areas" are often structured in regions of important agricultural production, historic sites or natural features. Where as "receiving areas" should be located within close proximity of urban/suburban regions often where infrastructure is currently available and also where future growth maps dictate. TDR programs rely upon a market that must place demand upon the rights from the sending areas. This can be difficult with the structure of the program, and zoning densities dictating success. As

stated earlier, TDR has proven effective when careful planning has led to the creation of well-structured programs.

Michigan Farmland Preservation Program (P.A. 116): The Michigan Farmland Preservation Program allows farmers to enter into development-limiting contracts with the state of Michigan for a period between 10 and 99 years. The State rewards farmers for their participation with income-tax incentives, and exemption from certain special assessments. In 2005, 35% of Michigan had enrolled in P.A. 116, but only between 0% and 21% of St. Clair County participated (State of Michigan 2007).

Right to Farm Act: Michigan's Right to Farm legislation protects farmers from nuisance claims by neighboring landowners. As long as a farm operates using Generally Accepted Agricultural and Management Practices (GAAMP's), neighbors generally cannot claim nuisance against odors, noises, and other annoyances stemming from farming operations.

Michigan Agricultural Fund: The State of Michigan provides funding for Purchase of Development Rights programs to counties meeting certain requirements. A nine-member committee, appointed by the governor, considers grant proposals with priority toward:

- ❖ Agricultural land with the capacity for food, feed, and fiber output
- ❖ Farmland that fits into a long-term plan for land preservation in local governments
- ❖ Farmland that creates blocks of contiguous protected agriculture land

St. Clair County's Urban and General Services District: This District as outlined by the County's Master Plan is intended to be developed with higher commercial and residential densities. By maintaining and improving urban cores in this area, residents will be encouraged to stay instead of sprawling out into valuable farmland.

Case Study 3: Transferring Development Rights (TDR) in Montgomery County, Maryland

After losing 3,000 acres of farmland to development each year, Montgomery County established a Transfer of Development Rights program in 1980. The program utilizes a 90,000-acre Agricultural Preserve, or Rural Density Transfer Zone to "send" development rights to established urban "receiving" areas. Though the program reduced the number of residential dwellings permitted per acre from one dwelling per five acres to one dwelling per twenty-five acres within this zone, farmers can sell their development rights at the one dwelling per five acres level to developers building in urban areas. The program has proved extremely successful. In combination with other preservation tools, conservation easements protect 47,389 acres or 68% of the total farmland acreage in the Rural Density Transfer Zone, with a majority of those easements stemming directly from the TDR program. This way farmland stays farmland, farmers can still profit from their development rights, and dense development occurs where it is desired – in urban areas. The County now serves as a national standard for TDR programs. To read more about Montgomery County's TDR program, see Appendix C.

4.2 Toolbox Matrix

Through a practicum group analysis, strengths and weaknesses for each preservation tool were determined based on how they relate to the current conditions in St. Clair County (see Matrix 4.1).

Matrix 4.1

Agriculture Land and Open Space Preservation Toolbox

Protection Tool	Strengths	Weaknesses
Comprehensive Planning	<ul style="list-style-type: none"> Creates a vision for the community Allows for citizen input Can be updated 	<ul style="list-style-type: none"> Often outdated Legally non-enforceable Cannot prevent incompatible uses at jurisdictional borders
Zoning	<ul style="list-style-type: none"> Legal power to separate land uses Proactively prevents incompatible uses Can be updated and amended 	<ul style="list-style-type: none"> Outdated in many of St. Clair's local governments Does not always reflect current trends
Conservation Easements	<ul style="list-style-type: none"> Permanent ("runs with the land") Only removes specific rights (e.g. mineral, development, water) 	<ul style="list-style-type: none"> Land owners lose some development rights Can be complex
Purchase of Development Rights (PDR) Programs	<ul style="list-style-type: none"> Funding can come from multiple sources Allows farmers to continue their operations 	<ul style="list-style-type: none"> Expensive Many farmers do not want to sell their wealth/retirement funds Not all local governments have approved the program

Source: MSU Practicum Team Analysis, 2007

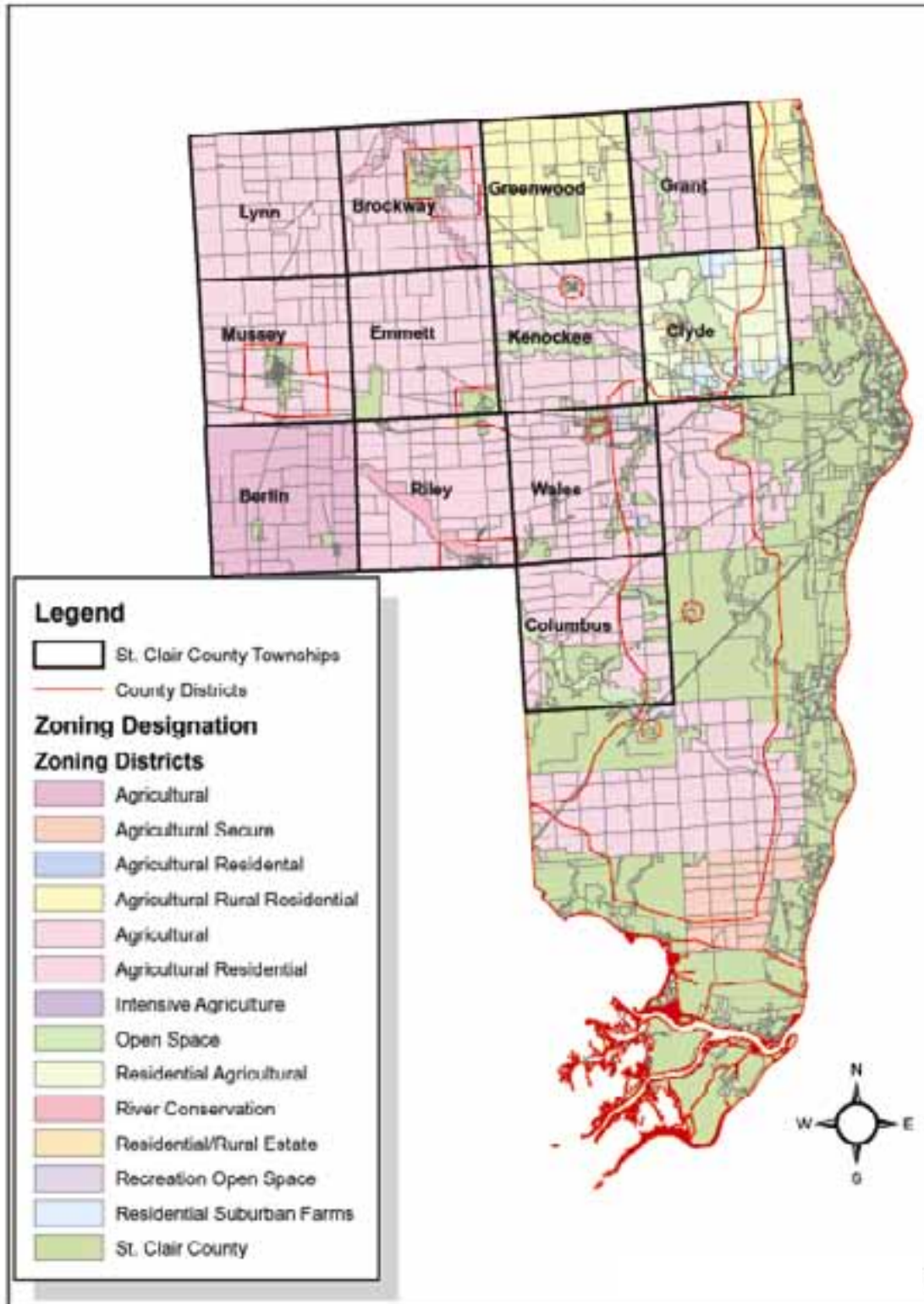
Protection Tool	Strengths	Weaknesses
Transfer of Development Rights (TDR) Programs	<p>Promotes development in preferred locations</p> <p>Creates market between property owners, developers, and the TDR bank</p> <p>Does not restrict development, just redirects it</p> <p>Provides for permanent protection</p>	<p>Legislation needs to be enacted on a state level to allow for a TDR program to function</p> <p>Legislation is difficult to construct</p> <p>Determination of densities for the transfer of rights must be desirable in order to create a market</p>
Michigan Farmland Preservation Act	<p>Rewards farmers with tax incentives</p> <p>Prevents development for a given amount of time</p>	<p>Not permanent</p> <p>Low enrollment within St. Clair County</p> <p>Does not necessarily protect the most vital land</p>
Right to Farm Act	<p>Protects farmers from nuisance claims</p>	<p>Can benefit large, conglomerate agriculture operations which compete with small farms</p>
Michigan Agricultural Fund	<p>Provides funding to PDR programs</p> <p>Funding comes from state grants instead of local money</p>	<p>Limited money available</p> <p>Difficult to receive money until all townships have approved the County's PDR program</p>
St. Clair County's Urban and General Services District	<p>Growth can be directed away from farmland</p> <p>Encourages downtown revitalization</p>	<p>There is no legal standing requiring that development take place here</p> <p>Could create a higher concentration of noise and pollution</p>

Source: MSU Practicum Team Analysis, 2007

5. Rural and Agricultural Conservation District Zoning and Ordinance Summary

Analyzing the various township zoning ordinances in the Rural and Agricultural Conservation District will provide insight for creating a comprehensive and cohesive set of regulations regarding farmland preservation. The current agriculture and open space zoning designations are displayed on Map 5.1, which was compiled using data from generalized and composite zoning. Townships outlined in the map are those located within the Rural and Agricultural Conservation District. Ordinances vary in their dates of adoption, thus the category of I-A (Intensive Agricultural Use) adopted by Wales and Greenwood Townships in 2002, is not depicted throughout the map.

St. Clair County Agriculture & Open Space Zoning



5.1 Township Zoning Ordinance Matrix

Matrix 5.1 summarizes the zoning ordinances that pertain to agriculture and open space in the Rural and Agricultural Conservation District. Along with the date of the latest zoning ordinance update, the zoning identification and the accompanying zoning district name are also listed. This matrix provides the basis for a continuing zoning ordinance analysis throughout the rest of Chapter 5.

Matrix 5.1 **Township Zoning Ordinance Matrix**

Township	Ordinance Adoption Date	Zoning ID	Zoning District Name
Mussey Twp.	2004	AG	Agricultural
		RC	Recreation/Conservation
Berlin Twp.	2002	A	Agricultural District
Greenwood Twp.	2002	I-A	Intensive Agricultural
		A/R	Agricultural/ Rural Residential
		OS	Open Space, Conservation/Recreation
Lynn Twp.	1997	A	Agricultural
Grant Twp.	2004	A1	Agricultural Secure
		A2	Agriculture Residential
		OS	Open Space
Emmett Twp.	2001	AG	Agricultural
Clyde Twp.	2006	RA	Residential Agricultural
		RSF	Residential Suburban Farms
		RE	Residential Rural Estate
		OS	Open Space
Columbus Twp.	1979	AG	Agricultural
		OS	Open Space
Kenockee Twp.	1998	AG	Agricultural
		OS	Open Space

Source: Twp. Zoning Ordinances

Township	Ordinance Adoption Date	Zoning ID	Zoning District Name
Wales Twp.	2002	AG I-A ROS	Agricultural Intensive Agricultural Recreation and Open Space
Riley Twp.	2000	AR RC	Agriculture-Rural Residential River Conservation
Brockway Twp.	1989	AG RC	Agricultural River Conservation

Source: Twp. Zoning Ordinances

5.2 Township SWOT Matrix

Matrix 5.2 highlights the Strengths, Weaknesses, Opportunities, and Threats (SWOT) of each individual township zoning ordinance relative to agriculture and open space. The Matrix is intended to provide a foundation for determining the level of support for agriculture and open space preservation in each township. A more comprehensive outline of zoning allotments can be found in Appendix A.

Matrix 5.2

Township SWOT Matrix

Township	Strengths	Weaknesses	Opportunities	Threats
Mussey Twp Zoning ID: -AG, RC	-RC preserves and protects natural features of a site	-AG does not permit roadside stands, Ag. Tourism		- AG allows low-density residential development
Berlin Twp Zoning ID: A		-A Does not permit roadside stands, Ag. Tourism		- A allows single family home sites in rural area

Source: Twp. Zoning Ordinances and MSU Practicum Team, 2007

Township	Strengths	Weaknesses	Opportunities	Threats
<u>Greenwood Twp.</u> Zoning ID: I-A, A/R, OS	- I-A ordinance strictly forbids residential dev. - A/R prevents suburban encroachment - OS preserve natural character/beauty of site		- I-A, A/R and OS allow farm markets, bed and breakfasts and Ag. Tourism	- I-A and A/R allow for golf courses
<u>Lynn Twp.</u> Zoning ID: A		- A Does not permit roadside stands, Ag. Tourism		- A allows for one and two family dwellings
<u>Grant Twp.</u> Zoning ID: A1, A2, OS	- A1 and A2 special permits include roadside stands - OS preserves open space, buildings shall not be erected	- A1 and A2 do not include Ag. Tourism in special permits	- A1 voluntary enrollment, ensures eligibility for buying/selling of property rights - A2 allows for PUD's	- A2 allows golf courses and PUD's
<u>Emmet Twp.</u> Zoning ID: AG	- AG conserves enhances, and stabilizes farming	- AG special uses allow two-family, multiple family residential dev.	- AG special uses allow bed and breakfast	
<u>Clyde Twp.</u> Zoning ID: OS, RA, RSF, RE	- RA enhances, conserves and develops farming - RSP provides transition between urban and agriculture - RE permits residential activities semi-rural in character - OS encourages use of land in natural state	- RA special uses allow two-unit dwellings and golf courses - RA, RSF and RE do not list Ag. Tourism in special uses	- RA permits agribusiness, bed and breakfast - RSF, RE permit bed and breakfast - OS special uses include recreational oriented businesses	

Source: Twp. Zoning Ordinances and MSU Practicum Team, 2007

Township	Strengths	Weaknesses	Opportunities	Threats
<u>Columbus Twp.</u> Zoning ID: AG, OS	- OS intended to preserve natural character/beauty of natural areas	- AG allows for commercial development - AG does not allow farm markets, Ag. Tourism	- OS permits farm markets	- AG allows for single-family, and warehouse activities
<u>Kenockee Twp.</u> Zoning ID: AG, OS	- AG encourages farms on land appropriate for Ag. production - OS preserves areas of natural character	- AG special uses allow two family dwellings	- AG permits farm markets, special uses allow bed and breakfasts, and agribusiness - OS special uses allow agribusinesses and bed and breakfasts	- AG allows single family detached dwellings and condos - OS allows single family dwellings
<u>Wales Twp.</u> Zoning ID: AG, I-A, ROS	- AG encourages farms, prevents urban/suburban encroachment - I-A provides for Ag. as a collective network of industries - ROS provides for large scale recreational land uses		- AG permits farm markets - I-A permits farm markets, bed and breakfast, farm tourist homes - ROS permits farm markets, special uses include tourist homes/bed and breakfast	
<u>Riley Twp.</u> Zoning ID: AR, RC	- AR provides for areas best suited for agriculture - RC restricts use to ordinance outline	- AR special uses allow specialized resorts, golf courses	- AR and RC allow farm markets - AR special uses allow agribusinesses	- AR and RC allow single and two family dwellings
<u>Brockway Twp.</u> Zoning ID: AG, RC	- AG encourages farms, prevents urban/suburban encroachment - RC preserves natural character/beauty	- AG special uses allow golf courses, rural cluster housing, Ag. Tourism is not include in uses	- AG special uses allow bed and breakfast - RC allows farm markets, special uses allow bed and breakfast	- AG and RC allow single family residential

Source: Twp. Zoning Ordinances and MSU Practicum Team, 2007

5.3 Zoning for Agriculture

Based on the previous SWOT analysis, the level of support for agriculture and open space protection in each township of the Rural and Agricultural Conservation District has been ranked as one of three possible tiers: high support, medium support, and low support. The MSU practicum team performed this analysis and the results can be seen in Matrix 5.3. The rating system is as follows:

High Support – Township zoning ordinance offers some form of exclusive agricultural or open space zoning not permitting residential development while allowing for roadside stands and other avenues for increased farm profitability.

Medium Support – Township zoning ordinance does not separate their agriculture zones into different levels of intensity. The agriculture zones often allow for residential development and may or may not allow agricultural tourism and roadside marketing opportunities.

Low Support – Township zoning ordinance contains a single agricultural zone that allows for residential development, as well as other uses including golf courses. These ordinances do not explicitly allow roadside stands, farmers markets, and other uses beneficial to farmers.



Source: St. Clair County Metropolitan Planning Commission

Matrix 5.3

Township Ordinance Rating Matrix

Municipality	Approximate Percent of Prime Farmland	High Support	Medium Support	Low Support	Location Concerns (Bordering Other Counties)
Greenwood Township	80%	X			
Grant Township	70%	X			
Mussey Township	80%			X	Borders Lapeer County
Emmett Township	90%			X	
Clyde Township	45%		X		Close Proximity to Ft. Gratiot and Port Huron
Berlin Township	90%			X	Borders Macomb and Lapeer County
Wales Township	85%	X			Borders Macomb County
Brockway Township	85%		X		
Columbus Township	50%			X	Borders Macomb County
Kenockee Township	65%			X	
Lynn Township	85%			X	Borders Lapeer County
Riley Township	90%			X	Borders Macomb County

Source: Twp. Zoning Ordinances and MSU Practicum Team, 2007

In terms of agricultural support, some townships within the Rural & Agricultural Conservation District could benefit from strengthening their zoning ordinances. The following is a two-part list based on the Township Ordinance Rating Matrix: the first list covers townships providing medium support for agriculture and open space within the existing ordinances and the second list covers townships providing low support. The Townships providing low support should consider eliminating outdated ordinances that are not in compliance with the goals set forth in the County Master Plan.

Townships providing medium support

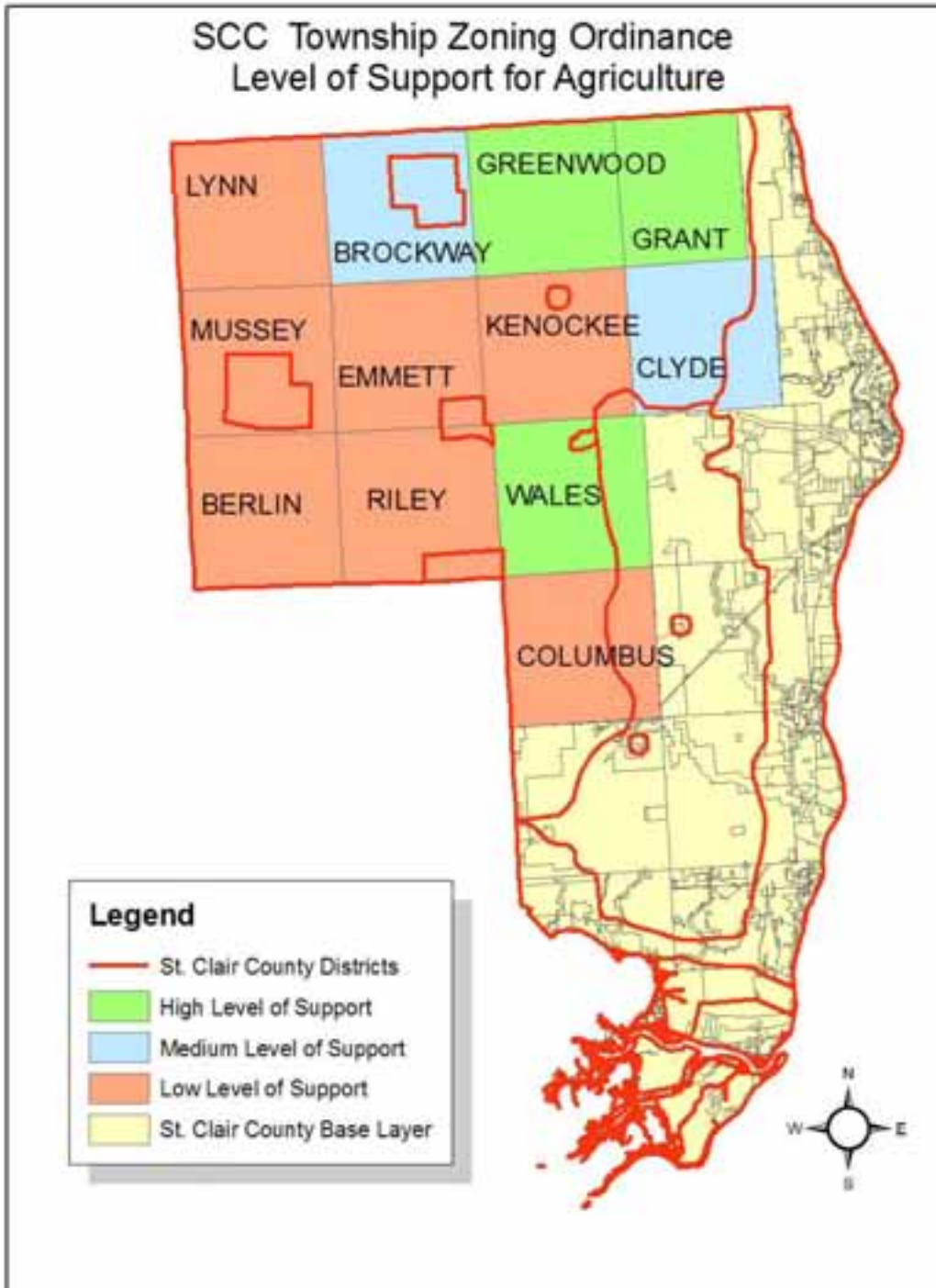
Clyde, Brockway

Townships providing low support

Mussey, Emmett, Berlin, Columbus, Kenockee, Lynn, Riley

Map 5.2 shows the Townships and their level of support. It makes it easy to see that the Townships providing the lowest support are also the ones bordering other counties, hence the location concerns. Since there could be a lack of regional planning between St. Clair County and surrounding counties, these townships could be at risk for development.

Map 5.2



Source: SCCMPC and MSU Practicum Team, 2007

5.4 Zoning Ordinance Support and Population Trends

Townships providing low support for agricultural and open space preservation may be at risk for development depending on their projected population growth. Table 5.1 illustrates two relevant population trends. The first trend shows the ten townships in St. Clair County that experienced the greatest growth from 1990 to 2007. The second trend displayed in the matrix reflects the ten townships with the greatest projected population growth by 2030 (the townships included in each of these trends are not necessarily the same). Referring back to the zoning ordinance rating system, townships with zoning ordinances providing low support are shown in the last column. Reference to the location of the townships listed within this table can be seen in Map 5.3.

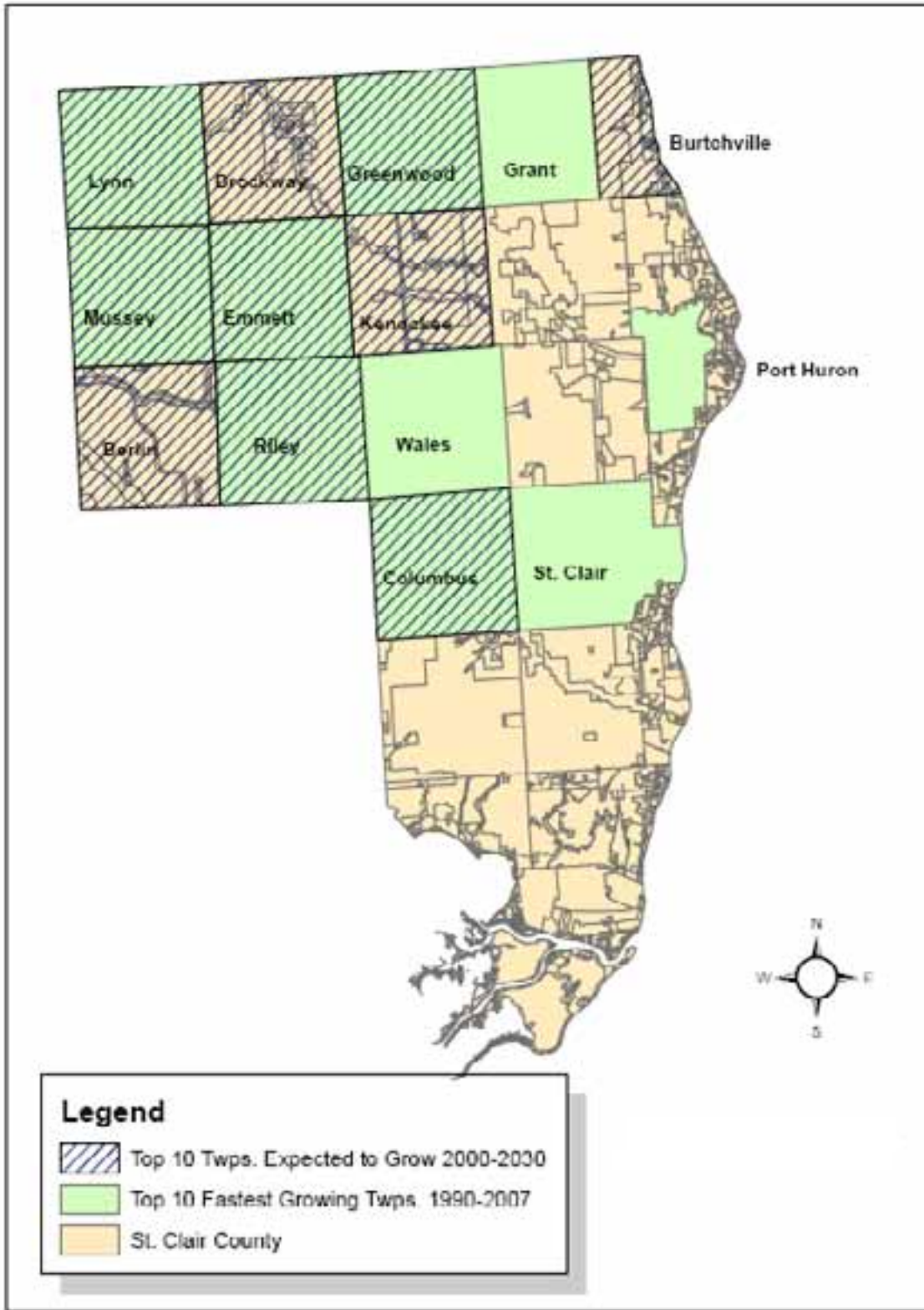
Table 5.1 **Current and Projected Township Population Growth**

Township	Twp. Growth Percent Change 1990 - 2007	Expected Twp. Growth Percent Change 2000 - 2030	Twp. Ordinances Providing Low Support
Emmett Twp.	68.99 %	96.60 %	✓
Greenwood Twp.	58.15 %	46.10 %	
Grant Twp.	57.36 %		
Riley Twp.	57.13 %	68.10 %	✓
Mussey Twp.	54.44 %	52.80 %	✓
Lynn Twp.	53.09 %	58.80 %	✓
St. Clair Twp.	52.88 %		
Columbus Twp.	51.75 %	52.20 %	✓
Wales Twp.	45.42 %		
Port Huron Twp.	43.70 %		
Kenockee Twp.		65.90%	✓
Berlin Twp.		52.80 %	✓
Burtchville Twp.		48.20 %	
Brockway Twp.		48.00 %	

Source: SEMCOG and MSU Practicum Team, 2007

Table 5.1 shows that seven of the townships within the Rural & Agricultural Conservation District with zoning ordinances offering low support, are also projected to show the greatest amount of growth by 2030. Based on these population projections and with consideration to the level of support given in each ordinance, the townships at greatest risk for future development are: Emmett, Riley, Mussey, Lynn, Columbus, Kenockee and Berlin. Focus should be given to these townships ordinances in particular to create a higher level of support for agricultural and open space preservation.

St. Clair County Current & Expected Township Growth



Source: SEMCOG

5.5 Examples of Sound Zoning Ordinances

In updating and constructing new ordinances for the Townships of the Rural and Agricultural District, it is ideal to have access to sample ordinances for guidance in layout and structure. Several sound ordinances from townships within St. Clair County, as well as one from Grand Traverse County, have been chosen to illustrate how ordinances can support agricultural and open space preservation permitted under Michigan Law.

The example ordinances chosen are as follows:

- ❖ Greenwood Township:
 - I-A (Intensive Agriculture) District
 - OS (Open Space, Recreation Conservation) District
- ❖ Clyde Township:
 - RSF (Residential Suburban Farms) District
- ❖ Ira Township
 - Agribusiness (Value Added Farming Operation) Amendment
- ❖ Peninsula Township (Grand Traverse County):
 - A-1 (Agricultural) District

Together, these ordinances demonstrate the basic principles needed for constructing effective agricultural and open space preservation documents, as well as expanding opportunities for agribusiness. The complete structure of these ordinances can be found in Appendix B.

Greenwood Township's I-A district is intended to allow for regular and intensive agricultural uses. This ordinance also allows for agriculturally related commercial and industrial uses. However, it is not intended to be a holding zone for conversion to another use or large lot residential subdivisions that are not desired. The zone has a number of permitted uses such as, agricultural research facilities, farm based bed and breakfasts, farm tourist homes, farm markets, and typical agricultural activities. Feedlots, the raising of fur-bearing animals, quarries for mining and extraction, gun and hunt clubs, shooting and archery ranges, combat game areas, horse and dog race tracks, and golf courses are allowed with the approval of special land use permits.

The OS District of Greenwood Township preserves areas with natural character, beauty, and high environmental quality. Permitted uses include: farms on parcels larger than 10 acres, the raising of livestock and farm animals (but not feedlots), hobby farming, farm markets, boat and canoe liveries, and forest and game management areas. While conditional land-uses include: golf courses, public and commercial stables, gun and hunt clubs, shooting and archery ranges, combat game areas, tourist homes, and bed and breakfast establishments.

In Clyde Township, the RSF (Residential Suburban Farms) District is intended to provide for orderly residential growth, to allow some continued agricultural use, while allowing for residential activities of a rural character. An important function of the

district is to serve as a transition area between land used for farming and land used for more urban purposes. Permitted uses of the RSF District include: farms (excluding the raising or housing of livestock) and bed & breakfasts. Uses allowed with a special land use permit are greenhouses, tree & shrub nurseries, golf courses, kennels, and two-unit dwellings.

Ira Township is located in the southwestern corner of St. Clair County. The Township is mostly contained in the Urban and General Services District with a small portion in the Rural Residential District. As a result, it intended to be an area for continued urban development, while also allowing for farming ventures. Recently, an amendment entitled "Agri-business (Value-Added Farming Operation)," was adopted in Ira Township. The amendment allows ancillary uses along with existing traditional farming operation, in which the ancillary uses are not primary. The farms in question must be officially recognized by the State of Michigan as real operating farms, otherwise these regulations are not applicable.

The Agribusiness amendment allows certain uses permitted with site plan approval only. Such uses include: agricultural products grown onsite, including food products and flowers (minimum of 55 percent grown onsite), cider mills or wineries derived from produce grown primarily onsite (minimum of 55 percent grown onsite), bakeries selling baked goods containing produce grown primarily onsite (minimum of 55 percent grown onsite), play areas for children (not including motorized vehicles or rides), petting zoos (limited to farm animals), pony rides, and other similar uses approved by the Township. With the approval of special land use permits, the amendment allows: animated barns (fun houses, haunted houses, or similar ventures), ancillary retail sales and gift shops, including the sale of crafts and antiques, kitchen facilities (only accessory to farm markets of cider mill activities), and small-scale entertainment uses (not including permanent seating areas).¹⁰

Peninsula Township is located in northern Grand Traverse County. While there are geographical and land use differences from those of St. Clair County, the desire of citizens to preserve valuable farmland and open space draws strong similarities. The A-1 (Agricultural) District of Peninsula Township is intended to recognize the ecological character of the Township and to preserve, enhance, and stabilize the existing agricultural uses. The ordinance also recognizes that some areas of the Township are not suitable for farming, and therefore allow limited uses compatible with agricultural and open space.

Permitted uses in the A-1 District of Peninsula Township include: field crop and fruit farming, raising and keeping of small animals, raising, keeping and boarding of livestock, customary home occupations, roadside stands, agricultural labor camps for less than five migrant workers, licensed agricultural labor camps, public areas and public parks, public and private conservation areas, barn storage, and farm processing facilities. Land uses allowed though a special land use permit include: recreational unit parks, food processing plants, greenhouses and nurseries, riding stables and livestock auction yards, raising of fur bearing animals, game or hunting preserves, veterinary hospitals, clinics, and kennels, storage of agricultural products, golf courses and country clubs, wind energy conversion systems, bed and breakfasts, and winery-chateaus.

While the ordinances outlined above provide a good example of allowable land uses, it is equally important to highlight several of the restrictions that these ordinances place upon the land. Residential and commercial development is completely restricted in the majority of the ordinances, with the exception of the Residential Suburban Farms District in Clyde Township, which is meant to operate as a buffer between primarily residential and agricultural uses. Industrial uses are restricted to those closely associated with agricultural practices. When looking at restrictions in open space ordinances, land uses that are deemed intensive are often prohibited, due to impacts that can remove natural characteristics of a site. Land use restrictions provide the structure for the permitted uses within an ordinance.

The summary of these ordinances is meant to provide a basis for future zoning ordinance formulation for townships in the Rural and Agricultural District of St. Clair County. Each township will have regional variation affecting the details and structure of their individual ordinances. However, these example districts and amendments provide a valuable resource for updating and creating new ordinances, with the ability to protect agricultural land and open space, corresponding to the goals in the County Master Plan.

5.6 Updating Ordinance Language and Definitions

While examples of sound townships zoning ordinances have been provided, including specific language and definitions regarding agricultural tourism and direct marketing of products would further enhance the level of support for agriculture. Townships should update the language to state that agricultural tourism and direct marketing of products provide opportunities to promote and sustain the agriculture industry. The ordinances should also include definitions for agricultural tourism, value-added products, agricultural products, agriculturally related uses, non-agriculturally related uses, farm market/on-farm market/roadside stand, and seasonal signs. These updates will create opportunities for farmers to provide fresh food to the community, generate new businesses, and increase tourism in the area.

In 2007, The Michigan Agriculture Tourism Advisory Commission created a Model Zoning Ordinance Provision¹¹. The following summarizes relevant findings from their report:

❖ Ideally, uses permitted by right in agriculture zones should include:

1. General and specialized farming
2. Storage, retail, and marketing of value-added products
3. Cider mills and wineries



Source: SCC Metropolitan Planning Commission

4. Direct marketing of products in a farmer's market or roadside stands no greater than "x" square feet.
5. Seasonal U-pick operations
6. Seasonal outdoor mazes (e.g. Corn maze, hay maze)
7. So long as rural character is maintained, uses such as educational tours, playgrounds, petting zoos, hayrides, nature trails, gift shops, classes, and other agriculturally related activities should be allowed.

❖ Uses requiring a special use permit should include:

1. Bed and breakfast establishments
2. Direct marketing of products in a farmer's market or roadside stand greater than "x" square feet
3. Restaurant operations related to the agriculture operations
4. Non-agricultural related uses including concerts, haunted houses, art-fairs, and meeting places for weddings or other social activities.
5. Local governments should permit signage advertising agriculture-related businesses. These signs should be seasonal and remain erected only for a specified period of time.

The level of support for agriculture in township zoning ordinances will improve when language and definitions such as these are included. However, a more comprehensive look at value added agriculture and agricultural tourism is necessary in order for such language to be meaningful, because local governments and farmers will become more knowledgeable about available options in the future.

6. Value Added Agriculture

6.1 What is Value Added Agriculture?

Value Added Agriculture involves using innovative methods to increase the market value of existing farm products. The USDA outlines five methods for adding value to agricultural products¹²:

1. *Changing the way a commodity is marketed* using direct marketing and targeting niche markets.
2. *Changing the form of a commodity before it is marketed*, for example, processing raw products such as wheat into flour.
3. *Changing the way a commodity is packaged for market* including unique package design, variety in package quantities for sale, and gift ready packages.
4. *Growing a commodity for a special market* such as ethnic/culture oriented foods and organic products.
5. *Adding a new enterprise* through changing the production process, producing industry specific products, or engaging in "agritainment" (petting zoos, bed and breakfasts, hunting, etc).

These five methods can improve the marketability of products and bring an additional cash flow to the farming industry long after the crops have been harvested. Farmland preservation may be enhanced through value added agriculture, as local consumers gain a greater appreciation for local farms and the variety of products offered in their community.

6.2 Direct Marketing

From 1997 to 2002, St. Clair County experienced a 140.3% increase in total direct sales to individuals (refer back to Graph 3.7). This is clearly a growing market and has a strong association to value added products. As stated by the USDA¹², direct marketing is one method of changing the way a commodity is marketed, thus adding value to that commodity. Direct marketing occurs when consumers purchase products from farmers rather than retailers or other indirect outlets. Sites and options for direct purchases of value added products include farms, farmers markets, roadside stands, seasonal u-pick operations, community supported agriculture, catalogs, and the internet, among others.

Farmers Markets

Farmers Markets serve as a gathering place for producers and consumers for the sale and purchase of fruits, vegetables, and other agricultural related products. The set up of these markets removes the necessity for producers to interact with wholesalers or retailers, therefore they can capture 100% of the profits. Farmers markets link agricultural and urban communities within a region, creating an interdependent relationship in which vendors rely upon local consumers for profits and the community relies on the vendors for a fresh food supply. Such a relationship could lead to more support for and interest in farmland and farmland preservation.

Community Supported Agriculture (CSA)

Community Supported Agriculture is a system in which community members financially support the cost of a farm's growing season, by purchasing shares in return for produce throughout that season¹³. CSA's are very versatile, as they must meet the specific needs of the communities they serve. Farmers gain financial security because shares, based on predicted operational and salary costs, are purchased prior to the growing season. Supporting participants of CSA regularly receive fresh produce and gain a personal connection with the agricultural community. As a result, participants are more concerned with the success or failure of each season since they have a personal stake in the farm.

Niche Markets

Along with direct marketing, niche marketing is an effective method of adding value to products. Niche markets are created from a demand for specialty goods that cannot be found in large commodity markets. Value is added when producing specialized agricultural products because the rare and/or seasonal availability of them allows for higher prices. According to the Department of Agriculture Economics at Kansas State University¹⁴, there are two ways to determine how niche marketing can become established in a community:

- “1. Analyzing the impact of trend or need among current and prospective users and then determining if the trend might create an opportunity for a new product or if a current product can be promoted in a new way.
2. Continually monitoring product users to find out ways to subdivide them into niches. These divided groups can provide a market in which an existing or new product can be promoted.”

Direct and niche marketing strategies offer alternate avenues for product profitability. St. Clair County's top ten agricultural products provide opportunities for farmers to participate in those markets. Fruits and vegetables can be directly marketed, while corn, soybeans, and dairy products can be altered to create different, more valuable commodities. By evaluating the County demand for products in niche markets, farmers can determine the client base and the potential for their participation in these markets.

6.3 Agricultural Tourism

Another value adding marketing strategy that farmers can employ is agriculture tourism. Agricultural tourism takes advantage of agricultural and rural area attractions to provide entertainment for tourists and local community members. Tourism ventures related to agriculture include, but are not limited to: bed and breakfasts, farmers markets, U-pick farms, cider mills, corn mazes, and Christmas tree farms. As stated by the Michigan Agricultural Tourism Advisory Committee in 2007¹⁵:

Agricultural tourism provides many benefits, including:

- Keeping the farm in the family
- Allowing for continued farming and keeping the farm viable
- Generating additional income or off-season income
- Increasing and diversifying the market
- Providing a healthy food choice to consumers
- Responding to a need or opportunity in the market (specialty product)
- Interacting with and educating customers/visitors about farming

In addition to these benefits, visitors attracted to farm sites for entertainment purposes can also engage in direct purchasing of agricultural products for sale. Thus, farmers can capture revenue through the tourism industry and direct marketing simultaneously.

St. Clair County has already identified several markets for tourism opportunities including:

1. U-Pick Operations, e.g. Blueridge Blueberry Farm in Capac
2. Farmer's Markets, e.g. the Blue Water Farmers Market in St. Clair
3. Cider Mills, e.g. McCallum's Orchard and Cider Mill in Jeddo
4. Corn Mazes e.g. Corn Fun Family Farm in Casco

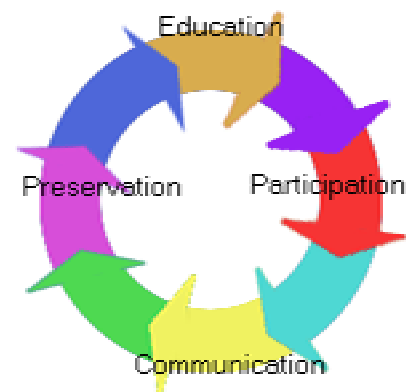
While agriculture tourism may not be practical for every farm, those that can take advantage of this industry may find it rewarding on both a personal and economic level.

7. Public Awareness Campaign

The purpose of a Public Awareness Campaign (PAC) is to increase the consciousness of community members about a specific issue. In St. Clair County, it is imperative to bring attention to the issue of farmland preservation, as well as encouraging a change in thought and behavioral patterns regarding conservation. The formation, implementation, and success of any rural protection plan is dependent upon the support and participation of local land owners, both rural and urban. Information regarding the opportunities for and benefits of farmland preservation must be circulated throughout the community in various forms, targeted at multiple audiences, and in cooperation with a range of government and non-government actors.

The following steps represent the key aspects of the Agricultural and Rural Character Protection Plan's public awareness campaign:

1. Education
2. Participation
3. Communication
4. Preservation



7.1 Education

The public must be informed of all possible programs available for farmland preservation in St. Clair County, including how they operate, the potential benefits, the long-term effects, and how to get involved. Educating the public can take multiple forms and be enacted in all areas of the community. Methods include:

- ❖ Door to door contacts
- ❖ Community group meetings
- ❖ Formal teaching workshops and training sessions
- ❖ Distribution of pamphlets and flyers
- ❖ Use of television and radio commercials/programs
- ❖ Short films
- ❖ Public debates
- ❖ Informative website
- ❖ Presentations in schools

Education can be further enhanced with endorsement from local public figures and opinion leaders, such as schoolteachers, church leaders, city council members, and organization chairs.

In St. Clair County, opportunities for public education include the Metropolitan Planning Commission (MPC) Chronicle Newsletter, MPC Workshops, the Agricultural Preservation Board Newsletter, special events such as Earth Day, presentations to high school government classes and involvement from school clubs, *The Times Herald Newspaper*, and Channel 6/Public Access Channels.

7.2 Participation

Working simultaneously with the education process, it is necessary to have the participation of a wide variety of community members involved. This includes both urban and rural landowners, government officials, men and women, and people of all ages. The participation of various groups is important not only for educational purposes, but also to ensure the views, comments, and concerns of all groups are heard and recognized.

Opportunities for St. Clair County residents to voice their opinion include: Master Plan Update Visioning Session, County Department Visioning, open forum meetings, and public hearings. The hosting of a photo contest, suggested by the Metropolitan Planning Commission, offers a means of active participation from community members interested in agricultural land and open space protection. Additionally, participating in the active protection of farmland consists of supporting local farm productions from both individuals and related businesses.

As the public becomes more educated and more interested in farmland preservation and what it means to the community, an increase of opportunities to participate may follow. Additional individuals will be there to participate in door-to-door contacts, conducting workshops, distribute pamphlets, etc. and may bring to the table new ideas on how to preserve and enhance the rural character of St. Clair County.

A key factor in this section is the participation of farmers in preservation programs. Even if everyone in the County supports farmland preservation, the effects will be lost if farmers do not decide to preserve and conserve their own land. If the farming community is well educated on the issues and understands the ramifications of decreasing farmland in the County, this group will be better suited for setting the stage for participation in preservation programs and activities.

7.3 Communication

As mentioned above, there are an abundance of methods for communicating ideas to and within the public, each having various strengths. For example, public radio and television are great for getting quick ideas across to a large audience, while pamphlets and workshops allow for more in depth descriptions and discussions. A combination of methods should be used to reach as many community members as possible. Ideas may be communicated through Channel 6 and public access channels, *The Voice Newspaper*, and the posting of both draft documents and the progress of plans on community websites.

Communication also includes networking internally and externally among various stakeholders. Land owners, planning departments and other governmental agencies, non governmental organizations, state and national policy makers, community leaders, and concerned citizens must all be in contact, sharing and receiving ideas with one another. In St. Clair County, networking groups may include:

the Agricultural Preservation Board, St. Clair Rotary, Port Huron Rotary, Algonac Lions Club, Yale Loins Club, the St. Clair County Farm Bureau, the Metropolitan Planning Commission and Township governments.

While the educational tools are important for getting the concept of farmland preservation across, stakeholders should also share their own feelings and experiences with farmland in St. Clair County. By making farmland preservation a personal issue, people may be more likely to share their own stories and find a common ground in conserving land and supporting local farms.

7.4 Preservation

The ultimate goal of this Public Awareness Campaign is to preserve the agricultural land of St. Clair County in order to maintain the rural character and open spaces that represent the County's history. By educating the community, encouraging participation among any and all people, and with continual communication among stakeholders, preservation opportunities will be advanced. This plan is intended to educate the community on the benefits offered by agriculture, encourage local support of farm products in St. Clair County, increase the public's passion for farmland preservation, and spur local farmers to become involved and engaged in preservation practices.

8. Recommendations

1. Update Township Ordinances

The current township ordinances should be updated in three ways to better accommodate the preservation of agricultural land and agri-business in St. Clair County's Rural and Agricultural Conservation District:

- a. Ordinances should be less restrictive for Agri-business and Agriculture Tourism
- b. Ordinances should include an exclusive agriculture zone to be more restrictive on development
- c. Ordinances should include an open space zone to support natural and beautiful features within a township

St. Clair County townships with ordinances providing low support to agricultural preservation should consult with the Metropolitan Planning Commission in order to provide a cohesive set of zoning regulations throughout the County. Township Zoning officials should look to recommendations made in this report, as well as best practices examples in the appendices for guidance in formulating new zoning regulations. Master Plans and zoning ordinances in the Urban and General Services District should be analyzed to ensure that development and revitalization is being encouraged in these areas.

2. Implement Public Awareness Campaign

The implementation of the public awareness campaign is vital for informing the community on the importance of preserving farmland in St. Clair County. The St. Clair County Agricultural Preservation Board may be the most appropriate organization for implementing the public awareness campaign, as they have connections to the local agricultural and rural community. The Board should include and direct other participants interested in farmland preservation from around the County to implement the public awareness campaign.

The Board can reach County residents through the internet, and as such, an update to their current website would be necessary. The website could include information pertaining to St. Clair County farmland issues, farm events, and the current status of the agricultural economy, as well as a link to the MSU student practicum presentation of the Agricultural and Rural Character Preservation Plan.

Public awareness should be directed at prospective St. Clair County home buyers through pamphlets on what to expect from country living. This would better prepare them for the benefits and challenges of living in a primarily agricultural community.

3. Identify Growing and Niche Markets

St. Clair County should consider investing in a full range of agricultural economic studies to help determine niche markets in the community. These studies may also identify which products being sold are affecting the large increase in direct sales to individuals. Discovering the most profitable commodities through these studies could help farmers more effectively market their goods and increase sales of specialty products. At the County level, a knowledgeable government employee should provide business and marketing assistance for farmers looking to enhance their business strategies.

Upon the release of the 2007 Agricultural Census figures and trends should be reanalyzed and compared to this document. This will help identify which markets are continuing to grow and provide further direction for those in the farming community.

4. Explore Linkages Between Farms and Local Businesses

Farms and local businesses should coordinate their efforts to create a market in which all community members benefit. Farms can market their products to businesses, businesses can then advertise and sell local specialty products, and consumers are able to purchase local goods of which they are proud. Creating an increased interdependence between these groups would aide in the formation of a sustainable local market. This in turn supports farms and farmland preservation by providing a reliable local consumer base.

5. Explore the Use of E-Business with Agricultural Marketing and Production

Interactive websites can aide in direct marketing by providing information and potentially offering online sales. Websites should contain detailed contact information including the farm's phone number, mailing and email addresses, driving directions, and specific online ordering instructions if applicable. Farm history, photos, and videos of farm operations would also enhance the website and further connect it to the community. E-business offers opportunities to expand a farm's consumer base both locally and regionally.

6. Increase the Current State of Participation in Farmland Preservation

There are multiple preservation tools currently available for farms in St. Clair County including conservation easements and Public Act 116. Farmers are encouraged to enroll in P.A. 116 or place a conservation easement on their land to protect it from development. Updating Master Plans and Zoning Ordinances can be an effective way for local governments to participate in farmland preservation.

St. Clair County has an established Purchase of Development Rights (PDR) program, but it is not feasible at this point in time due to funding. In order to improve the chances at receiving PDR funding, it is necessary for the remaining six townships that have not signed on to the County PDR program do so. It will be more likely that

the State of Michigan will provide funding if all townships unanimously support the County's PDR program.

Transfer of Development Rights (TDR) is currently not available in the State of Michigan, and requires public and government advocacy. TDR's have no legal precedent or standing, therefore, farmers and local governments should lobby for the passing of State enabling legislation regarding TDR programs in Michigan. TDR's could be an effective method for directing development to targeted areas and thus preserving farmland.

7. Explore Opportunities for Preservation Funding

The State of Michigan has limited funds available for farmland preservation. Therefore, St. Clair County must find alternate funding options for their farmland preservation programs. Several examples include impervious surface fees, impact fees, toll roads, community land banks, and county millages. Linking agriculture and open space preservation with historical preservation or parks and recreation in county millages could help them pass successfully. Community members are encouraged to lobby for additional State and Federal funding for farmland preservation programs.

8. Encourage Development in the Urban and General Services District

The Urban and General Services District is intended to incur higher levels of development than the Rural Residential District and the Rural and Agricultural Conservation District. This district is prime for growth as it is already equipped with infrastructure, a full range of public services, and can accommodate all expected population growth within the next 20 years. Cities in this district should focus on improving downtown areas rather than developing outward. Encouraging improvements in urban cores may alter sprawling development patterns because downtowns will become more desirable places to live and work. Thus, land in the Rural and Agricultural Conservation District is left to farming and open space rather than homes and businesses.

9. Take a Proactive Stance on Agricultural Preservation

Preserving agricultural land in St. Clair County requires proactive work from local governments, farmers, and the County citizens. Local governments need to update their ordinances to better restrict development opportunities on agricultural land. By changing the ordinances now, or in the near future, local governments can take a proactive stance rather than reacting to sprawling development. For farmers to be proactive, they should participate in a preservation program if possible, and lobby for the support of TDR and PDR programs in the County and the State of Michigan. County citizens should be educated and familiar with farmland preservation issues in their own region to continue support for agriculture. Each group in the community needs to work together if farmland preservation is to be successful. Starting preservation initiatives now will eliminate the need for reactive planning measures in the future.

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Appendices

Appendix A:

Mussey Township

(Adopted: 2004)

AG, Agricultural District	<p>Intended for continued agricultural uses, while permitting very low density rural home sites on large parcels or clusters of homes while preserving the agricultural uses and rural characteristics of the area</p> <p>Permitted uses include general agriculture activities, hobby farms, single family homes in accordance with sections 1100 and 1101 where applicable</p> <p>Special land uses include equestrian riding stables and academies, single family cluster density bonus option, disposal areas, kennels, raising of fur-bearing animals, single-family accessory apartment, mining and extraction, golf courses</p>
RC, Recreation, Conservation District	<p>Intended to provide for recreational uses within the township, improvement or development should safeguard, preserve and protect the natural features of the site, as well as ensuring compatibility with adjacent uses</p> <p>Permitted uses include farms, petting farms, educational farms, nature preserves</p> <p>Special land uses include equestrian stables and riding academies, shooting ranges, gun clubs and large-scale gaming preserves, golf courses</p>

Berlin Township

(Adopted: 2002)

A, Agricultural District	<p>Provide for generally recognized farming and agricultural uses, as well as single family home sites in areas rural in character</p> <p>Permitted uses include farms, one family dwellings, all principle uses in the R One-Family District</p> <p>Special land uses include kennels, mining and extraction, manufactured dwellings</p>
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Greenwood Township

(Adopted: 2002)

**I-A, Intensive
Agricultural
District**

Provides for regular and intensive agricultural uses, as well as agriculturally related commercial and industrial uses
Not intended to be a holding zone for conversion to other uses, or for large lot residential development
Ag. Preservation programs should be applied in this area
Permitted uses allow such activities as ag. research facilities, farm based bed and breakfasts, farm tourist homes, farm markets, as well as normal agricultural activities
Special uses include feedlots, raising of fur-bearing animals, quarries mining and extraction, gun and hunt clubs, shooting and archery ranges, combat game areas, horse and dog race tracks, golf courses

**A/R, Agricultural/
Rural Residential
District**

Provides for farms needed on land resources for agricultural production, fosters rural lifestyles, prevents encroachment from suburban and urban development
Common land uses include farming, woodland, large lot rural non-farm dwellings, open space, outdoor recreation
Permitted uses allow such activities as raising of livestock and farm animals (but not feedlots), hobby farming, farm markets, single-family dwellings on parcels not part of a platted subdivision or site condominium
Special land uses include plant/tree nurseries with sales area, public and commercial stables, quarries mining and extraction, gun and hunt clubs, shooting and archery ranges, combat game areas, bed and breakfast establishments, golf courses

**OS, Open Space,
Conservation and
Recreation
District**

Provides preservation of natural character and beauty of areas having a high degree of environmental quality
Permitted uses include farms on parcels larger than 10 acres, raising of livestock and farm animals (but not feedlots), hobby farming, farm markets, boat and canoe liveries, forest and game management areas
Special land uses include golf courses, public and commercial stables, gun and hunt clubs, shooting and archery ranges, combat game areas, tourist homes, bed and breakfast establishments

Lynn Township

(Adoption: 1997)

**A, Agricultural
District**

Intended to restrict land use and building to specified requirements laid out in the ordinance
Permitted uses include one and two family dwellings, general agriculture parcels, public libraries, parks, and parkways, churches, schools, hospitals, retail and service establishments

Grant Township

(Adopted: 2004)

A1, Agricultural Secure District	Intended that land areas well suited for production of food and fiber are retained that way
	Dependent on voluntary enrollment by the property owner, enrollment ensures the property owners eligibility to participate in future government programs for the buying and selling of property rights
	Permitted uses include commercial agriculture (>39 acres), dairy farms, historic sites, game refuge, orchards, vineyards
	Special land uses include roadside stands (> 49% is grown on the premises), boarding and riding stables, commercial agriculture (<40 acres)
A2, Agriculture Residential District	Intended to encourage the continuation of agricultural operations, while permitting non-farm residential consistent with rural character of the community
	Permitted uses include commercial crop agriculture (>39 acres), forest preserve, historic sites, orchards, vineyards, tree sod farms
	Special land uses include commercial crop agriculture (<40 acres), roadside stands (>49% grown on the premises), livestock production facilities, PUD's, private parks, country clubs, gun clubs, golf courses, ski resorts, raising of fur-bearing animals, soil extraction, quarry-excavation
OS, Open Space District	Intended to preserve open space within the township, buildings shall not be erected nor the land used outside of permitted uses
	Permitted uses include general agriculture and farming, forest preserves, game refuges
	Review and approval of site plans allows for uses such as camping sites and recreational oriented businesses, golf courses

Emmett Township

(Adopted: 2001)

AG, Agricultural District	Intended for the principle use of farming and related natural resource based use, regulations are designed to conserve, enhance and stabilize farming, in preserving area for agricultural use it also prevents proliferation of residential subdivision and urban sprawl
	Permitted uses include farming (conditions on size of farm, > & <10acres), riding stables, agriculture research facilities
	Special land uses include bed and breakfasts, shooting & archery ranges, gun clubs, two-family dwellings, multiple family residential development, elderly housing developments, campgrounds/RV parks, golf courses, soil removal, excavation, filling, quarries

Clyde Township

(Adopted: 2004)

OS, Open Space District	Intended to encourage recreational uses of an outdoor nature that will take advantage of the land in its natural state
	Permitted uses include general agriculture and farming, forest preserves, game refuges, public and private parks
	Special land uses include picnic grounds, camping sites, recreational oriented businesses, golf courses
RA, Residential Agricultural District	Composed of areas whose principle use is and ought to be farming, also designed to enhance, conserve and develop farming and related resources, while protecting the land from unplanned residential, commercial and industrial development
	Permitted uses include farming, tree and shrub nurseries, riding stables, agribusiness (fruit/vegetable stands, farmers markets, etc.), agricultural research, bed & breakfast
	Special land uses include retail establishments to cater to tourism, campgrounds, gun clubs/archery ranges, combat game areas, golf courses, two unit dwellings, private parks, country clubs, ski resorts, feedlots and raising fur-bearing animals, soil removal, quarry, excavation, filling of land subject to ordinances
RSF, Residential Suburban Farms District	Intended to provide open land area for orderly residential growth, continued agricultural use and residential activities of a rural character, and provide a transition between areas developed as farms and more urban land uses
	Permitted uses include farms (excluding the raising or housing of livestock), bed & breakfast
	Special land uses include greenhouses, tree & shrub nurseries, golf courses, kennels, two unit dwellings
RE, Residential Rural Estate District	Intended to provide land area for orderly residential growth, continued agricultural use and residential activities of a semi-rural character, also to promote and encourage suitable environments for low density, and to preserve the rural character of the township
	Permitted uses include farms (excluding the raising or housing of livestock), bed & breakfast
	Special land uses include greenhouses, tree & shrub nurseries, golf courses, kennels, two unit dwellings

Columbus Township

(Adopted: 1979)

AG, Agricultural District	Intended to preserve land for both commercial and agriculture use and also for recreational plant and animal husbandry
	Permitted uses include general and specialized agricultural activities, marketing and warehousing activities, one family dwellings, forest and game management areas, hunting preserves, and private stables
	Special land uses include campgrounds, golf courses, commercial stables, kennels, large-scale recreation, livestock barns, shooting ranges, and soil, sand and gravel excavation
OS, Open Space District	Intended to preserve the natural character and beauty of areas having a high degree of environmental quality
	Permitted uses include forest and game management areas, hunting preserves, wildlife refuges, general and specialized agriculture (excluding commercial feedlots), sale of agricultural products (including the use of roadside stands), boat and canoe liveries, golf courses, and one family dwellings
	Special uses include campgrounds, kennels, commercial stables, large-scale recreation, and shooting ranges

Kenockee Township

(Adoption: Not Known)

AG, Agricultural District	Encourages farms on land appropriate for agricultural production, fosters rural lifestyles, and prevents untimely suburban and urban development
	Permitted uses include farms, farm buildings, greenhouses, sale of agricultural products (including the use of roadside stands), large and small hoofed animals, single family detached dwellings and single family condominiums
	Special uses include two family dwellings, feedlots and the raising of fur bearing animals, public and commercial stables, kennels, mining and soil removal operations, outdoor recreational uses, golf courses, gun clubs, shooting ranges, combat game areas, bed and breakfast establishments, and agribusiness uses
OS, Open Space District	Intended to preserve the natural character of areas having a high degree of environmental quality
	Permitted uses include single family detached dwellings, home occupations, forest and game management areas, hunting preserves, wildlife refuges, public parks, and recreational facilities
	Special uses include golf courses, outdoor recreation uses, gun clubs, shooting ranges, cemeteries, bed and breakfast establishments, and agribusiness uses

Wales Township

(Adopted 2002)

AG, Agricultural District	Encourages farms on land needed for agricultural production, fosters rural lifestyles and prevents encroachment from mostly suburban and urban development
	Permitted uses include farms (feedlots restricted), hobby farms, farm markets
	Special land uses include plant & tree nurseries, gun & hunt clubs, public and commercial stables, quarries, mining, extraction, combat game areas, and golf courses
IA, Intensive Agricultural District	Intended to provide for agriculture as a collective network of agriculturally related industry operations
	Permitted uses include farms (including feedlots), plant and tree nurseries/greenhouses, farm markets, agriculture research facilities, bed & breakfast, farm based tourist homes
	Special land uses include plant & tree nurseries, gun & hunt clubs, public and commercial stables, quarries, mining, extraction, combat game areas, and golf courses
ROS, Recreation and Open Space District	Intended to provide for certain large scale recreational land uses
	Permitted uses include farms (>9 acres), hobby farms, farm markets (raised or grown on premises), boat & canoe liveries, forest and game management areas/wildlife refuges
	Special land uses include stables, gun and hunt clubs, tourist homes/bed & breakfast establishments, golf courses

Riley Township

(Adoption: 2000)

AR, Agriculture-Rural Residential District	Intended to provide those areas which are best suited for agricultural and rural residential uses
	Principle uses include single-family dwellings, generalized and specialized farming and agricultural uses, sale of agricultural products, conservation and/or recreational uses, site condominium development, and two family dwellings
	Special uses include agribusiness uses, campgrounds, specialized resorts, commercial-non retail greenhouses, golf courses, country clubs, hog farms, feedlots, private and commercial kennels, mining of earth materials, and riding academies
RC, River Conservation District	Intended to restrict building and land use to specified uses outlined in the ordinance
	General and specialized agriculture, sale of agricultural products (including the use of roadside stands), one family detached dwellings, and two family dwellings
	Special uses include campgrounds, golf courses and country clubs, home occupations, shooting ranges and gun clubs

Brockway Township

(Adopted: 1989)

AG, Agricultural District	Encourages farms on land resources needed for agricultural production, fosters rural lifestyles, and prevents encroachment from untimely suburban and urban development
	Permitted uses include farms, farm buildings and greenhouses, roadside stands, single family detached dwellings
	Special uses include raising livestock and farm animals (but not including feedlots), feedlots for raising of fur bearing animals, housing for migratory labor, public and commercial stables, quarries, recreational uses, gun clubs, combat game areas, bed and breakfast establishments, golf courses, open space preservation, and rural cluster housing
RC, River Conservation District	Intended to preserve the natural character and beauty of areas having a high degree of environmental quality
	Principal permitted uses include, farms, sale of agricultural products, single family detached dwellings, boat and canoe liveries, forest and game management areas, hunting preserves, and public parks
	Special approved uses include, raising of livestock and farm animals (not including feedlots), golf courses, large scale outdoor recreational uses, public or commercial stables, gun clubs and shooting ranges, and bed and breakfast establishments

Appendix B:

I-A, INTENSIVE AGRICULTURAL DISTRICT (Greenwood Twp.)

SECTION 4.01 STATEMENT OF PURPOSE:

The Intensive Agricultural District provides for regular and intensive agricultural uses (including feedlots as defined #58) and agriculturally related commercial and industrial uses. This district is intended to provide for agriculture as a collective network of agriculturally related industry operations. It is not intended to be a holding zone waiting for and inviting conversion to other uses; nor is it intended to be a large lot residential district. Larger blocks of agricultural land without competing and conflicting land uses are envisioned. Purchase of development rights, transfer of development rights, or other programs to preserve farmland, should first be generally applied on a voluntary basis to farmland and other properties within this district.

This district expressly provides for farming of all types (crop and livestock), feedlots, agriculturally related commercial uses (e.g. Commercial nurseries with sales areas, farm implement dealers, road side & farm markets, commercial stables), and agriculturally related industry (food processing facilities), and other similar agricultural and agriculturally related uses. Woodland, wetland, open space, and compatible outdoor recreation and similar extensive land uses are also appropriate to this district and are encouraged in areas of less productive soils.

In the future, based upon the Township's Comprehensive Development Plan, portions of the Intensive Agricultural Districts could be converted to other zoning districts if determined by the Planning Commission that intensive agricultural use is no longer warranted or if additional land is needed at these locations for urban development.

SECTION 4.02 PERMITTED USES (defined in Section 17.24):

THE following uses are permitted in the Intensive Agricultural District:

1. Farms (definition #57) when located on a parcel of land ten (10) acres or more in area located outside the boundaries of either a proprietary or supervisor's plat. A farm shall be subject to the health and sanitary regulations of St. Clair County and the State of Michigan. No farm shall be operated for the disposal of garbage, sewage (except when such sewage is applied by State approved methods for the purpose of fertilizing the soil on a farm and when approved by the Township Board), rubbish, offal or rendering plants, or for slaughtering of animals (except such animals as may have been raised on the premises immediately prior thereto and for the use and consumption by persons residing on the premises).
2. Raising of livestock and farm animals (but not including feedlots, definition #58) for the purpose of this ordinance, shall constitute a farm and require at least ten (10) acres. No livestock or animal buildings or pens are located closer than fifty (50') feet

from any abutting residential district. (Michigan's "generally accepted agricultural and 7 management practices" (GAAMPS) may require a greater setback to avoid a nuisance suite.) All livestock and farm animals shall be kept within a fenced enclosure. All livestock or animal buildings and enclosures shall be kept in a well-maintained condition. Comment: The farm operator is advised that to avoid potential nuisance suites, the raising of livestock and farm animals should be conducted and sited in accordance with the Michigan "generally accepted agricultural and management practices"(GAAMPS) under PA 261 of 1999. The Township under this ordinance is not incorporating the GAAMPS by reference in this ordinance.

3. Farm buildings and greenhouses.

4. Plant and tree nurseries and greenhouses with sales areas.

5. Farm markets for the sale of agricultural products raised or grown on the farm premises within the township and agriculture-related items including year round roadside stands. A roadside stand shall be located not less than 10' from the existing road right-of-way; and an open area for patron's parking shall be provided subject to the same 10' setback.

6. Accessory single-family detached dwellings (farmsteads & related caretaker facilities).

Note: Rural non-farm dwellings are not permitted in this district.

1. Existing non-farm single-family detached dwellings shall be considered Class A non-conforming uses within this district.

2. New agricultural farmsteads and caretaker residences (either owner or tenant) provided that a substantial and permanent relationship to another permitted or specially permitted I-A, Intensive Agricultural District use is demonstrated.

3. Requirements that a single-family dwelling must meet to locate in this district are included in the definition of single-family dwelling (definition #50). Additional requirements related to area, height, and placements on a lot are given under Article XIV. A plot plan is required under Section 19.08.

7. Agricultural research facilities.

8. Garage sales, yard sales, or similar types of sales, provided that no such sale shall take place for a period of more than seven (7) days and no residence shall be permitted more than two such sales per year.

9. Grain elevators, grain drying, grading, weighing, and/or shipping facilities.

10. Bulk seed and fertilizer providers.

11. Public and commercial stables, kennels and animal clinics subject to Section 15.27 requirements 3. and 4.

12. Farm based bed and breakfast establishments (otherwise defined under #20) as provided in Section 15.18.

13. Farm based tourist homes (otherwise defined under #161), as provided in Section 15.31.8

14. Home occupations as defined and as regulated in Section 2.02 (#73).

15. Accessory uses buildings and structures (definition #1) customarily incidental to any of the above uses when located on the same property. (See note (R), Section 14.02).

SECTION 4.03 SPECIAL APPROVAL USES (definition #148):

SPECIAL APPROVAL USES are permitted subject to the procedures set forth in Article XV (Sections 15.01 to 15.09), which include a public hearing. A site plan is required for all special approval uses (Section 19.06).

SECTION 15.06 provides general standards to guide action by the Township Planning Commission. For a specific land use, additional standards are specified (Sections 15.10 - 15.52 and in this section below).

THE following uses are special approval uses in the Intensive Agricultural District:

1. Feedlots (definition #58) and raising of fur bearing animals as provided in Section 15.20.

2. Migratory labor camps used for seasonal labor, between April 1st and November 15th, provided that any such building or structure complies with the following regulations:

a. All buildings or structures shall be maintained in a safe and sanitary condition and shall be furnished with a safe and sanitary water supply and with sewage disposal facilities which are no less than those required by the St. Clair County and State of Michigan Health Departments.

b. All buildings or structures shall be so located so as to comply with regulations for structures in an Intensive Agricultural District as set forth Article XIV, with the exception that no building shall be located nearer than fifty (50) feet to any side property line.

3. Quarries, mining, and extraction as provided in Section 15.15.

4. Large scale outdoor recreational uses, as provided in Section 15.26.

5. Gun and hunt clubs, shooting and archery ranges as provided in Section 15.42.
6. Combat game areas as provided in Section 15.41.
7. Food processing facilities (311) as provided in Section 15.51.
8. Personal Use Aircraft Landing Fields as provided in Section 15.49.
9. Publicly owned and operated parks, parkways, and recreational facilities when such uses would not be incompatible with agricultural uses.
10. Farm implements dealers as provided in Section 15.52.8
11. Public buildings as provided in Section 15.23.
12. Horse and dog race tracks as provided in Section 15.13.
13. Golf courses, including driving ranges or miniature golf courses only when accessory to a regular golf course of nine holes or more, as provided in Section 15.24.
14. Private non-commercial recreational areas as provided in Section 15.25.
15. Public utility buildings, telephone exchange buildings, electric transformer stations and substations, and gas regulator stations, but not including storage yards; when operation requirements necessitate the locating within the district in order to serve the immediate vicinity as provided in Section 15.17.
16. High-pressure gas or high voltage electric transmission lines as provided in Section 15.10.
17. Communication towers as provided in Section 15.50.
18. Commercial composting facilities, provided that the location, design, and operation of said facilities comply with the conditions, regulations, and provisions set forth in the Greenwood Township Composting Ordinance.
19. Uses similar to the above uses.
20. Accessory buildings, structures (definition #1), and uses customarily incident to the above uses. See note (R), Section 14.02.

SECTION 4.04 AREA, HEIGHT, AND PLACEMENT REQUIREMENTS:

IN ACCORDANCE with the attached Schedule of Regulations, Article XIV.

OS, OPEN SPACE, CONSERVATION & RECREATION DISTRICT (Greenwood Twp.)

SECTION 6.01 STATEMENT OF PURPOSE:

THE purpose of this district is to preserve the natural character and beauty of areas having high degree of environmental quality; to protect the clarity and purity of the watercourses by minimizing bank erosion and sedimentation; to protect the economic value and the scenic quality of the stream banks and basins for the community and its property owners; and to limit development within designated floodplains. The district regulations are de-signed to insure that land will be developed in a manner having the least possible impact on natural resources.

SECTION 6.02 PRINCIPAL PERMITTED USES (defined in Section 17.24):

1. Farms (definition #57) when located on a parcel of land ten (10) acres or more in area located outside the boundaries of either a proprietary or supervisor's plat. A farm shall be subject to the health and sanitary regulations of St. Clair County and the State of Michigan. No farm shall be operated for the disposal of garbage, sewage (except when such sewage is applied by State approved methods for the purpose of fertilizing the soil on a farm and when approved by the Township Board), rubbish, offal or rendering plants, or for slaughtering of animals (except such animals as may have been raised on the premises immediately prior thereto and for the use and consumption by persons residing on the premises).

2. Raising of livestock and farm animals (but not including feedlots, definition #58) for the purpose of this ordinance, shall constitute a farm and require at least ten (10) acres. No livestock or animal buildings or pens shall be located closer than fifty (50') feet from any abutting residential district. (Michigan's "generally accepted agricultural and management practices" (GAAMPS) may require a greater setback to avoid a nuisance suit.) All livestock and farm animals shall be kept within a fenced enclosure. All livestock or animal buildings and enclosures shall be kept in a well-maintained condition. Comment: The farm operator is advised that to avoid potential nuisance suits, the raising of livestock and farm animals should be conducted and sited in accordance with the Michigan "generally accepted agricultural and management practices" (GAAMPS) under PA 261 of 1999. The Township under this ordinance is not incorporating the GAAMPS by reference in this ordinance.

3. Hobby farming on Non-Farm Lots outside of an existing residential plat, subdivision, and condominium development. Raising of livestock and farm animals (but not including feedlots) on parcels of land less than ten (10) acres in area shall be limited on the first five (5) acres, plus additional animals for each two (2) acres. Such use shall be accessory to an existing residence located on the same lot or parcel. Animals kept for a 4-H project are included under this permitted use. No livestock or animal buildings or pens shall be located closer than fifty (50') feet from any abutting property line. All livestock and farm animals shall be kept within a fenced enclosure. All livestock or animal buildings and enclosures shall be kept in a well-maintained condition, and waste products shall not create a health hazard or a public nuisance. Storage or piling of waste products shall be con-fined to areas where animal buildings

and quarters are permitted (accessory building) and away from wells, water bodies, and drainage ways. Notwithstanding the below table, offspring of said animals may be kept on the premises for the time period which is customary for the species involved.

A plot plan only (not a full site plan) is required for this use (See Section 19.08).

On five, seven, or nine-acre parcels the following number of animals would be allowed.

Type of Animal	Number of Animals Allowed on 5.0-6.99 Acres	Number of Animals Allowed on 7.0-8.99 Acres	Number of Animals Allowed on 9.0-9.99 Acres
Cattle (Slaughter and Feeder)	2	4	6
Horse	2	3	4
Mature Dairy Cattle (Milked or Dry)	2	3	4
Swine	3	5	7
Sheep, Lambs, Goats	10	20	30
Turkeys	55	110	165
Laying Hens	30	60	90
Ducks	5	10	15
Ostrich, Emu, Llama	2	4	6

EXAMPLE COMBINATIONS: On a 5-acre lot you could have 1 feeder cattle and 1 horse. On a 5-acre lot you could have 2 feeder cattle or 10 goats, but not both. On a 7-acre parcel you could have a 10 sheep and 55 turkeys. On a 9-acre parcel you could have 2 feeder cattle, 4 hogs, and 30 laying hens.

4. Farm buildings and greenhouses.

5. Farm markets for the sale of agricultural products raised or grown on the farm premises within the township, subject to requirements given under Section 5.02.5.

6. Single family detached dwellings (definition #50), provided that all structures are set back fifty (50') feet from the edge of any embankment identified as an escarpment or a "Short Steep Slope" on the St. Clair County Soil Survey 1974. Additional requirements are given under Section 5.02.6. 3 All other animal types not in the table below are to be calculated using one thousand pounds live weight (regardless of the number of mature animals to achieve 1000 lbs.) equals one permitted animal. 4 Each weighing over 25 kilograms, approx. 55 lbs.

7. State licensed residential care facilities for six (6) or fewer persons.

8. Home occupations as defined and as regulated by Section 2.02(#73).

9. Garage sales, yard sales or similar types of sales provided that no sale shall take place for a period of more than seven (7) days and no residence shall be permitted more than two such sales per year.

10. Boat and canoe liveries.

11. Forest and game management areas, hunting preserves, and wildlife refuges.

12. Publicly owned and operated parks, parkways, and recreational facilities.

13. Accessory uses, buildings, and structures (definition #I) customarily incident to any of the above uses when located on the same property. (See note (R), Section 14.02).

SECTION 6.03 SPECIAL APPROVAL USES (definition #148):

SPECIAL approval uses are permitted subject to the procedures set forth in Article XV (Sections 15.01 to 15.09), which include a public hearing. A site plan is required for all special approval uses (Section 19.06). Section 15.06 provides general standards to guide action by the Township Planning Commission. For a specific land use, additional standards are specified in Sections 15.10 -15.52 and in this section below.

THE following uses are special approval uses in the Open Space, Conservation & Recreation District:

1. Golf courses as provided in Section 15.24. Miniature golf courses and golf driving ranges as provided in Section 15.33.

2. Large scale outdoor recreational uses, such as provided in Section 15.26. Campground and travel trailer park lots shall be set back fifty (50') feet from the edge of any embankment identified as an escarpment or a "Short Steep Slope" on the St. Clair County Soil Survey 1974.

3. Public and commercial stables, kennels and animal clinics as provided in Section 15.27.

4. Gun and hunt clubs and shooting and archery ranges as provided in Section 15.42. Combat game areas as provided in Section 15.41.

5. Tourist homes (definition #161) as provided in Section 15.31, and bed and breakfast establishments (#20) as provided in Section 15.18.

6. Private non-commercial recreation areas as provided in Section 15.25.

7. Cemeteries when located on sites of fifty (50) acres or more as provided in Section 15.43.

8. Commercial towers as provided in Section 15.50.

9. High-pressure gas or high voltage electric transmission lines as provided in Section 15.10.

10. Uses similar to the above uses.

11. Accessory buildings, structures (definition #1), and uses customarily incident to the above uses. (See note (R), Section 14.02.)

SECTION 6.04 REQUIRED CONDITIONS:

1. No structure shall be erected within fifty (50') feet from a stream bank or from any embankment identified as an escarpment or a "Short Steep Slope" in the 1974 St. Clair County Soil Survey, whichever is greater. Before issuance of a building permit, the proprietor shall submit a plot plan (Section 19.08) or site plan (Section 19.06) to the Zoning Administrator showing the proposed location of any dwelling unit or other structure in relation to the stream bank, escarpment, steep slope, woodland and/or floodplain boundaries where applicable.

2. Any land owner or developer who contracts for, allows, or engages in an earth change in this district shall obtain a permit from the St. Clair County Department of Public Works prior to commencement of an earth change which is within five hundred (500') feet of a lake or stream of this County, or, said owner or developer shall otherwise comply with Michigan's Soil Erosion and Sedimentation Control Act.

3. The part of the lot which lies within fifty (50') feet of the stream bank shall be maintained in its natural condition and shall not be filled or excavated except as needed for underground utilities. No change shall be made in the natural grade. A lot shall be regarded as maintained in its natural wooded condition at any time when there is at least one (1) tree or shrub having the height of at least fifteen (15') feet for each five (5') feet of stream frontage or fraction thereof on the same side of the stream and within fifty (50') feet of the stream bank.

SECTION 6.05 AREA, HEIGHT, AND PLACEMENT REQUIREMENTS:

IN ACCORDANCE with the attached Schedule of Regulations, Article XIV.

RESIDENTIAL SUBURBAN FARMS DISTRICT (RSF), Clyde Township

SECTION 6.00 PURPOSE

The Suburban Farms District is intended to provide open land area for orderly residential growth, continued agricultural use and residential activities of a rural character in areas that are presently without public water and sewage facilities and are

likely to remain without such services for an extended period of time. Such areas have significant natural features and unique natural resources that should be preserved and enforced in the interest of property values and the tax base of the Township. This district is also established to provide transition between areas of developed as farms and farm residences and more urban land use patterns. The RSF District is intended to implement the Rural Transition Future Land use category presented in the Clyde Township Master Plan.

SECTION 6.01 PRINCIPAL USES PERMITTED

No building or structure, or part thereof, shall be erected, altered, or used, and no land shall be used except for one or more of the following:

1. Single-family detached dwellings.
2. Farms excluding the raising or housing of livestock. See Section 15.18 for exceptions to the exclusion of raising or housing of livestock.
3. Home occupations.
4. Publicly owned and operated municipal buildings other than places of public assembly.
5. Publicly owned parks, parkways, and recreational facilities.
6. Public, parochial, and private elementary, intermediate and/or high schools, and institutions of higher learning, offering courses in general education.
7. Public utility buildings, telephone exchange buildings, electric transformer stations and substations, and gas regulator stations, (but not including service storage yards) when operating requirements necessitate the location of such facilities within the district.
8. Family day care home.
9. Accessory buildings and uses customarily incidental to any of the above permitted uses.

SECTION 6.02 USES PERMITTED SUBJECT TO SPECIAL CONDITIONS

The following Special Condition Uses shall be permitted subject to review and approval by the Township Board, and further subject to any and all reasonable conditions which maybe imposed in accordance with Section 125.286d of the Township Zoning Act, Act 184 of 1943 as amended. Discretionary approval shall be subject to the requirements and standards of Section 18.00, Review and Approval of Special Condition Uses, of the Zoning Ordinance.

1. Bed and breakfast operations.

2. Greenhouses.
3. Tree and shrub nurseries.
4. Golf driving ranges and golf courses.
5. Churches.
6. Municipal buildings of public assembly including libraries, auditoriums and other gathering places.
7. Adult foster care large and small group homes and congregate care facilities.
8. Two-family dwellings.
9. Group day care home.
10. Home Based Businesses

SECTION 6.03 AREA AND BULK REQUIREMENTS

See Article 14, "Schedule of Regulations" limiting the height and bulk of buildings, the minimum size of lot by permitted land use, and providing minimum yard setback requirements.

SECTION 6.04 SITE PLAN APPROVAL

A site plan shall be submitted for review and approval by the Planning Commission for any new use, addition to an existing use, structural alteration or substantial change in use. Site plan approval is required for all permitted uses and special land uses in this district. Individual single-family homes and two family dwellings are exempt from this requirement. See Section 16.00, Site Development Requirements and Section 17.00, Site Plan Review, of the Zoning Ordinance.

Peninsula Township, Grand Traverse County, MI

Section 6.7 A-1 District: Agricultural:

Section 6.7.1 Intent and Purpose: This District is intended to recognize the unique ecological character of the Peninsula and to preserve, enhance, and stabilizing existing areas within the Township which are presently being used predominately for farming purposes, yet recognize that there are lands within the district which are not suited to agriculture, therefore allowing other limited uses which are deemed to be compatible with agricultural and open space uses.

Section 6.7.2 Uses Permitted by Right:

- (1) One-family dwellings.

(2) Two-family dwellings.

(3) Mobile homes: Provided the mobile home shall meet the requirements of the Mobile Home Construction and Safety Standards Act (24 CFR part 3280) and bear a HUD label so indicating.

(4) Field crop and fruit farming, truck gardening, horticulture, aviaries, hatcheries, apiaries, green houses, tree nurseries, and similar agricultural enterprises along with accessory uses incidental to the above.

(5) Raising and keeping of small animals such as poultry, rabbits, and goats.

(6) Raising keeping and boarding of livestock, such as cattle, hogs, horses, ponies, sheep, and similar livestock, except feeder lots. (REVISED BY AMENDMENT 155B)
(REVISED BY AMENDMENT 162A)

(7) Customary home occupations.

(8) Roadside stands selling regionally grown fresh and/or processed farm produce, raw forest products, cut flowers, potted plants, agricultural and forest products, but excluding items of a kind that are not grown regionally, and also excluding nonagricultural items and products the sale of which requires a permit from the Michigan Liquor Control Commission. Roadside stands are subject to the following terms and conditions: (REVISED BY AMENDMENT 95)

(a) The stand is not over 150 square feet in area. The 150 square foot area may be within a larger existing structure, so long as the larger structure meets all the setback requirements of the Agricultural District.

(b) Awnings up to 4 feet projection from the stand structure may be used on three sides of the structure. In the event that the 150 square feet is part of a larger structure the awning is allowed only on the portion making up the 150 square feet.

(c) There shall be a ratio of 1 parking space per 25 square feet of structure to the maximum 150 square feet. There shall be a minimum of five (5) parking spaces available and clearly marked with adequate turn around, so that all vehicles are furnished parking off the public right-of-way.

(d) No land use permit is required for a roadside stand if the structure is less than 25 square feet in area.

(e) If the roadside stand is less than twenty five (25) square feet in area or is larger than twenty five (25) square feet but is only left in place seasonally, the roadside stand may be located adjacent to the front lot line rather than meeting the front setback required by Section 6.8.1.

(f) It is the intent of this section to provide only for the limited seasonal sale of agricultural and related products, but not to encourage the size of investment in equipment that would require a commercial zone. (REVISED BY AMENDMENT 86)

(9) Cemeteries, public or private.

(10) Agricultural Labor Camp for less than five (5) migrant workers. (REVISED BY AMENDMENT 90)

(11) Licensed Agricultural Labor Camp. (ADDED BY AMENDMENT 90)

(12) Tenant house as a part of farm property for full-time farm employees associated with principal use and subject to the same height and setback requirements as the principal dwelling.

(13) Public areas and Public parks such as recreation areas, forest preserves, game refuges, and similar public uses of low-intensity character.

(14) Public and private conservation areas and structures for the conservation of water, soils, open space, forest and wildlife resources.

(15) Customary uses and structures incidental to the permitted principal use of the premises as allowed in Section 6.2.2(2).

(16) Mining or removal of topsoil subject to provisions of Article VII Section 7.2.3.

(17) Family Day Care & Group Day Care Homes subject to all requirements of Article VI, Section 6.2.2(7).

(18) Barn Storage. ADDED BY AMENDMENT 131.

(a) The intent of this use is to help make it economical for farmers to keep and maintain barns that might otherwise be allowed to decay because they are obsolete. It is not intended to be a self-storage use where there is regular access to the rental space by owners of the stored materials.

(b) It is not intended to allow a property owner to build a barn just for rental storage, or to rent storage in a barn and then build a similar structure for farm use.

(c) The zoning administrator may issue a land use permit for rental of storage space in barns for boats, campers, farm equipment or similar items in barns in the Agricultural A-1 District, provided:

1. The barn has been previously used for the storage of agricultural crops or for housing of livestock.

2. The barn has been in existence in its present form for not less than twenty (20) years prior to the application for a land use permit for this use;

3. The zoning administrator has determined that the barn is no longer used for farm purposes because of farm consolidation or changes in operations; and

4. The barn is not increased in size or the exterior modified for the use, however, doors or the interior may be modified if necessary to make the barn suitable for storage.

5. The rental of storage space in a barn shall be discontinued if a new barn is constructed for a use that can be accommodated in the old barn.

6. The Zoning Board of Appeals may grant a variance from the minimum twenty (20) year requirement, provided the Zoning Board of Appeals determines that the request is consistent with the intent of this section to not allow a property owner to build a barn just for rental storage, or to rent storage in a barn and then build a similar structure for farm use.

(19) Farm Processing Facility (Added by Amendment 139B)

(a) Statement of Intent: It is the intent of this subsection to promote local agricultural production and preservation of rural character by allowing construction and use of a Farm Processing Facility. The Farm Processing Facility use includes retail and wholesale sales of fresh and processed agricultural produce. The majority of the produce sold fresh or processed has to be grown on the specific farm operation (land owned or leased for the specific farm operation) of the party owning and operating the Specific Farm Processing Facility. 85 Percent of the produce sold fresh or processed has to be grown on Old Mission Peninsula. Activities such as weddings, receptions and other social functions for hire are not allowed, however, participation in approved township wide events is allowed. It is not the intent to grant any vested interest in non-agricultural uses of any structure built for a Farm Processing Facility. This amendment is not intended to supercede any Conservation Easement.

(b) Farm Processing Facility is permitted in the Agricultural A-1 Zone subject to the following:

1. Retail and Wholesale Sales

i. Retail and Wholesale Sales of fresh or processed agricultural produce is allowed provided:

ii. Grape wine that is processed, tasted and sold in a Farm Processing Facility under this section is limited to "Old Mission Peninsula" appellation wine meaning 85% of the juice will be from fruit grown on Old Mission Peninsula.

iii. Fruit wine that is processed, tasted and sold in a Farm Processing Facility under this section is limited to wine bearing a label identifying that 85% of the juice is from fruit grown on Old Mission Peninsula.

iv. Tasting of fresh or processed agricultural products at the Farm Processing Facility is allowed. Tasting of wine is limited to that produced at the Farm Processing Facility and labeled "Old Mission Peninsula" Appellation. Bread, crackers, fruit and cheese may be served at no charge as part of the tasting of processed products.

v. Logo merchandise may be sold provided:

1. The logo merchandise is directly related to the consumption and use of the fresh and/or processed agricultural produce sold at retail;

2. The logo is prominently displayed and permanently affixed to the merchandise.

3. Specifically allowed are: a) gift boxes/packaging containing the approved products for the specific farm operation; b) Wine Glasses; c) Corkscrews; d) Cherry Pitter; e) Apple Peeler.

4. Specifically not allowed are unrelated ancillary merchandise such as: a) Clothing; b) Coffee Cups; c) Bumper Stickers.

2. Limitations on Sources of Produce

i. Not less than 85 percent of all of the agricultural produce sold fresh or processed shall be grown on Old Mission Peninsula and a majority shall be grown on the land owned or leased for the specific farm operation by the same party owning and operating the specific Farm Processing Facility.

ii. If crop conditions or natural disaster result in a shortage of locally-grown fruit for a particular year; the Township Board may approve a larger proportion of produce grown off the land owned or leased for the specific farm operation by the same party owning and operating the Specific Farm Processing Facility for that particular year, provided that verification of such conditions are presented to the Township Board by a public organization representing the fruit growers of northwest Michigan that is duly recognized by the Township Board. Processed products produced in such a year shall not exceed the highest volume produced in any of the preceding five years.

iii. Wine shall be produced and bottled in the winery and the label shall include "produced and bottled by" immediately preceding the place where bottled or packed in accordance with the Bureau of Alcohol, Tobacco and Firearms law, article 27CFR, paragraph 4.35

(a) (1) definition for "Produced and Bottled By", meaning 75% of such products will be fermented and clarified on the site (this requirement is intended to comply with federal regulations and does not supersede the requirements of 85% grown on Old Mission Peninsula). Sparkling wine or sparkling juices may be "finished" and bottled off site and so labeled.

iv. Dried fruit, a minimum of 85% by weight which is grown on Old Mission Peninsula and a minimum of 50% by weight which is grown on the farm, may be dried off premises and sold in the Farm Processing Facility retail room, provided, no more than the amount of fruit sent out for this processing is returned for retail sale.

3. Participation in "Township Wide Events" such as "Blossom Days" as specifically approved by the Township Board shall be allowed.

4. Parcel requirements:

i. A total of forty (40) acres of land are required to be devoted to the operation of a farm processing facility.

ii. The forty (40) acres shall be located within Peninsula Township and shall be owned or leased for the specific farm operation by the same party owning the specific Farm Processing Facility.

iii. The parcel containing the specific Farm Processing Facility shall have a minimum area of 20 acres and a minimum parcel width of 330 feet.

iv. The 20 acre minimum parcel (which may include public road rights-of-way) and the winery shall be owned by the same party. None of the 20 acres shall be alienable.

v. The 20-acre parcel may be one parcel or two contiguous parcels and the contiguous parcels may be separated by a road.

vi. There shall be no more than one house on the 20-acre parcel containing the Farm Processing Facility and no more than one house on the remaining required 20 acres.

vii. Up to twenty (20) of the forty (40) acres does not have to be contiguous and may be either owned by, or leased with exclusive control and use transferred to the operator of the Farm Processing Facility.

viii. None of the minimum 40 acres shall be used to satisfy acreage density or open space requirement of any other food processing or other use in the Township while the farm processing facility use is in effect.

ix. The number of allowed dwellings that may be built on the total 40 acres dedicated to the Farm Processing Facility use, shall be to two. However, the right to build the remaining dwelling units may be extinguished by sale or donation provided a permanent conservation easement to that effect is recorded with the County Register of Deeds. In addition the remaining dwelling units may be clustered on contiguous land, under the same ownership as the land from which the units are removed, providing that a permanent conservation easement is placed on the land from which the units are removed, in accordance with Section 8.3.6(3). The clustered dwelling units may not be placed on any part of the acreage that makes up the minimum 40 acres dedicated for the Farm Processing Facility use.

x. If property is leased, the lease shall be for a minimum of one year, and the lease shall be recorded with the Grand Traverse County Register of Deeds.

xi. There shall be a minimum of 5 acres of crops grown on the same parcel as the Farm Processing Facility.

5. Setbacks: The minimum setbacks for the Farm Processing Facility including retail areas and customer parking shall be:

i. Side and rear yard 100 feet;

ii. Front yard 50 feet;

iii. Minimum of 200 feet from any pre-existing residence on adjoining property.

6. Farm Processing Facility Size: The total floor area above finished grade (one or two stories) of the Farm Processing Facility including retail space room shall be no larger 6,000 square feet or .5% of the parcel size whichever is less. The retail space shall be a separate room and may be the greater of 500 square feet in area or 25% of the floor area above finished grade. The facility may consist of more than one building, however all buildings shall be located on the 20 acre minimum parcel that contains the Farm Processing Facility. Underground buildings are not limited to, and may be in addition to, the 6,000 square feet of floor area provided that it is below preexisting ground level and has no more than one loading dock exposed.

7. Pre-existing buildings (built prior to this amendment) may be used for a Farm Processing Facility provided that if it is more than 6,000 square feet in size, the retail

space room shall not be larger than 1,500 square feet. The Zoning Board of Appeals may consider variances from setbacks for such pre-existing buildings if it shall first be determined that such extension shall not be inimical to public health, safety or welfare, particularly with regard to surrounding property owners.

8. Vested Interest: There shall be no vested interest in non-agricultural uses of the structures. Structures shall only be used for allowed uses in the A-1 Agriculture District in the event that the Farm Processing Facility use is abandoned.

9. Parking: A minimum of one parking space for each 150 square feet of floor area in the retail/tasting area. Parking shall comply with Section 7.6 of the Zoning Ordinance.

10. Lighting: All lighting shall be so installed as to be confined within and directed into the parcel only. All lighting fixtures shall be "fully shielded" meaning outdoor light fixtures shielded or constructed so that no light rays are emitted by the installed fixture at angles above the horizontal plane. Light fixtures shall not have protruding lenses.

11. Signs: A "Agricultural Products" sign meeting the standards of Section 7.11 is allowed with a Food Processing Facility.

12. Access: A driveway permit from the County Road Commission or M.D.O.T. shall be required before a land use permit can be issued.

13. Data and Records:

i. The owner of the specific Farm Processing Facility shall annually provide data and records to the Zoning Administrator showing that a majority of the products processed are grown on the land owned or leased for the specific farm operation by the same party owning and operating the specific Farm Processing Facility. The data and records shall also document compliance with off-site processing requirements of this section.

ii. An up to date record of land ownership or lease to comply with acreage requirements shall be provided to the Zoning Administrator.

iii. The above data shall be supplied to the Township in a format or form approved by the Township Zoning Administrator.

iv. Any change in the above shall be submitted promptly in writing to the Zoning Administrator. Failure to submit such changes shall be considered a violation of the Ordinance.

14. Approval Process:

i. A site plan drawn to scale (one or more sheets as appropriate) is submitted to the Zoning Administrator along with the appropriate permit fee as established by the Township Board.

ii. The site plan shall include at least:

1. the parcel;

2. existing and proposed structures including setbacks from property lines;

3. proposed parking and lighting;
4. floor plan showing processing and retail areas;
5. parcel numbers and/or legal description of the parcels making up all the minimum parcel requirements; and the name, address and phone number of the owner of the property.

iii. A permit from Grand Traverse County Health Department is required before preliminary Farm Processing Facility permit can be issued.

iv. A preliminary Farm Processing Facility permit shall be issued by the Zoning Administrator upon a showing that the minimum requirements of parcel, building size, acreage requirement, setback and parking are met.

v. No processing or sales of products shall take place until a final Farm Processing Facility permit has been issued by the Zoning Administrator. Such final Farm Processing Facility permit shall not be issued until copies of all permits required by State, federal and other local licenses and permits have been submitted to the Zoning Administrator, and the Zoning Administrator has made an on-site inspection to verify compliance with all the requirements of the Zoning Ordinance.

15. Any violation of the Land Use Permit issued by the Zoning Administrator for this use shall, in addition to the provisions of Section 4.2.1 Violations and Penalties, serve as grounds for closing the retail operations, including tasting, portions of the use by the Township Board. In the event of any such alleged violation is made in writing to the Township Board, the Township shall give written notice of such alleged violation to the Applicant at the last address furnished to the Township by the Applicant. The notice shall state that unless the violation is corrected or resolved to the satisfaction of the Township Board within 30 days from the date of the notice, then the Township Board shall require the owner to close all retail sales operations on the premises, after hearing, until such time as the Township Board removes the restriction. In the event a hearing becomes necessary, the Township Board shall establish the notice requirements and such other conditions with respect to the hearing as the Township Board may deem appropriate.

16. Residence within a Farm Processing Facility. (Added by Amendment No 146)

i. A single-family dwelling may be allowed as part of a structure containing a Farm Processing Facility provided the following requirements are met:

ii. The dwelling and Farm Processing Facility combined shall not exceed any of the Setback or Facility Size requirements established above.

iii. The dwelling shall be the only dwelling on the 20-acre parcel containing the farm processing facility.

iv. The maximum height of the structure shall be 35 feet or 2 ½ stories whichever is less. Section 6.7.3 Uses Permitted by Special Use Permit: The following uses of land and structures may be permitted in any agricultural district by the application for and issuance of special use permit when all the procedural requirements specified in Article VIII, 8.1 "Uses Authorized by Special Use Permit: General Standards and

Requirements" are satisfied together with any applicable requirements as outlined in the particular Articles and Sections cited:

- (1) Planned Unit Developments subject to all requirements of Article VIII, Section 8.3.
- (2) Special open space uses subject to all requirements of Article VIII, Section 8.7.3
- (3) Recreational Unit Park subject to all requirements of Article VIII, Section 8.4.
- (REVISED BY AMENDMENT 114E)
- (4) Food processing plants subject to all requirements of Article VIII, Section 8.5.
- (5) Institutional Structures subject to all requirements of Article VIII, Section 8.6.
- (6) Greenhouses and nurseries selling at retail on the premises.
- (7) Riding stables and livestock auction yards.
- (8) Raising of fur bearing animals for profit.
- (9) Game or hunting preserves operated for profit.
- (10) Veterinary hospitals, clinics and kennels.
- (11) Sawmills.
- (12) Storage for agricultural products.
- (13) Golf courses and country clubs subject to all requirements of Article VIII, Section 8.7.2(4) and Section 8.7.3(4).
- (14) Public buildings and public service installations.
- (15) Incinerators and sanitary fills, sewage treatment and disposal installation subject to all requirements of Article VIII, Section 8.7.2(1) and (2), and Section 8.7.3(1) and (2).
- (16) Deleted by Amendment No. 67(6)
- (17) Airports and Airfields.
- (18) Warehousing and light industrial subject to all requirements of Article VIII, Section 8.7.2 (7) and Section 8.7.3(7).
- (19) Wind Energy Conversion Systems: Subject to all requirements of Article VIII, Section 8.7.3(8).
- (20) Bed and Breakfast Establishments: Subject to all requirements of Article VIII, Section 8.7.3(6).
- (21) Adult Foster Care Facilities: Subject to all requirements of Article VIII, 8.7.3(9).
- (22) Winery-Chateau: Subject to all requirements of Article VIII, Section 8.7.3(10).
Section 6.7.4 Area and Bulk Requirements: Are subject to Section 6.8 "Schedule of

Regulations" limiting the height and bulk of buildings, the minimum size of lot permitted, and providing minimum yard setback requirements.

Section 6.7.5 Conservation Easement Restricted Farmland.

Section 6.7.5.1 Intent The Peninsula Township Purchase of Development Rights Ordinance allows future building sites under certain conditions and in specific locations as shown on recorded conservation easements. It is the intent of this section to allow those future building sites to be used for residents on the farm or to be sold along with all or a portion of the restricted farmland with a minimum area of one acre or more. It is also the intent of this section avoid the conversion of preserved agricultural land by allowing access to these individual future building sites without requiring a new public or private road to the site.

Section 6.7.5.2 Reserved Building Site Access

Restricted farmland may be divided without the requirement of providing access to a public or private road irrespective of Section 7.10 Road Standards provided:

(1) A reserved dwelling site shall have access to an existing road by either a driveway or a new private road. Access by private road shall be required if it serves or is to serve three (3) or more residences.

(2) A residential building site may be separated from the remainder of the restricted farmland on a parcel of not less than one acre irrespective of Section 6.8.1. with access as provided in 1. above.

(3) Where access is provided by a driveway and not a public or private road; the front yard setback will be fifty (50) feet rather the thirty-five (35) foot front yard setback required from a public or private road. (ADDED BY AMENDMENT 117A)

Ordinance Amendment , Ira Township Section 401 SPECIAL LAND USES

Agri-Business (Value Added Farming Operation)

1. Intent

The Township recognizes the need for farming and its ancillary uses to evolve as the broader market and economic conditions of farming evolve. Further that, to maintain the remaining farms within the Township, it may be necessary to allow ancillary uses connected with the typical farm and farm operations. This section of the Ordinance is intended to provide a mechanism to allow values added farming while protecting the long-term interest of the Township. This section, however, shall only apply to those farming operations that desire to provide ancillary sales and activities above and beyond those of a traditional farming operation which are permitted under Section 1607(i) of the Ira Township Zoning Ordinance.

As part of the approval process, a farm must produce some form of recognition from the State of Michigan that the subject site is a bona fide farm. These methods may

include tax records, enrollment in state or federal programs, or other acceptable means. Bona fide farms shall not be subject to the full extent of the site plan review requirements set forth in this ordinance due to the size and large frontage associated with these parcels. However, a site plan of all ancillary activity areas shall be provided and shall be subject to the site plan review process and/or public hearing requirements for special land use approval as provided below.

1. Permitted Uses – Site Plan Only

- a. The following uses listed below shall be considered permitted uses in the Agricultural Zoning District and shall be subject to site plan review requirements, as outlined in Section 1615 of this Ordinance, and shall not require special land use approval:
 - i. Agricultural products grown onsite, including food products and flowers (a minimum of 55 percent growth onsite).
 - ii. Cider mills or wineries derived from produce grown primarily onsite (a minimum of 55 percent growth onsite).
 - iii. Bakeries selling baked goods containing produce grown primarily onsite (a minimum of 55 percent grown onsite).
 - iv. Children play areas (not including motorized vehicles or rides).
 - v. Petting zoos (limited to farm animals) and pony rides.
 - vi. Other similar uses as approved by the Township. If any questions arise as to whether a use is a permitted use or a use permitted after special land use, the use shall be considered a special land use.

2. Uses Permitted After Special Land Use Approval

- a. The following uses may be determined acceptable as part of a bona fide farming operation after special land use approval:
 - i. Animated barns (fun houses, haunted house, or similar)
 - ii. Ancillary retail sales and gift shops, including the sale of crafts and antiques. The Township may restrict the percentage of hard good sales as it relates to the overall farming operation sales. In this case, a statement from a certified accountant (or other acceptable means as determined by the Township) shall be provided showing compliance with the condition as set forth by the Township.
 - iii. Kitchen Facilities (only accessory to farm markets or cider mill activities).
 - iv. Small scale entertainment (not including permanent seating areas).

- v. Other similar uses as approved by the Township.

3. Minimum Site Requirements

- a. These ancillary uses may only be considered on farms or orchards as recognized by the Township.
- b. Setbacks:
 - i. Front yard: The minimum requirements for that district.
 - ii. Side yard: A minimum of fifty (50) feet.
 - iii. Rear yard: A minimum of fifty (50) feet.

The township in the case of an existing structure or use may alter these requirements.

- c. Pedestrian Circulation

- i. Dedicated pedestrian walkways or pathways shall be provided from all parking areas to the designated activity or shopping area. Walkways shall incorporate some form or combination of fencing, curbing, landscaping, etc., as a method of separation.

- d. Parking and Access

- i. Permanent parking areas shall be provided for farm stands. Parking shall be provided at a rate of one (1) space for each seventy five (75) square feet of farm stand area. Such parking areas shall be paved or gravel.
- ii. The applicant shall provide estimates for seasonal parking. Overflow parking areas shall be provided which can accommodate seasonal parking peaks. Such parking areas are not required to be paved or gravel.
- iii. Parking for other types of uses shall be provided as required by this Ordinance.
- iv. Parking shall be properly screened from adjacent residential uses. Screen shall consist of a landscaped greenbelt consistent with the standards of this Ordinance.
- v. No parking shall occur within the required side or rear yard setbacks.
- vi. Proper access shall be provided for all parking and maneuvering areas servicing the farm stand or farm use.

e. Conditions

- i. As part of the special land use approval the applicant shall provide an emergency reaction plan if the uses being proposed call for such.
- ii. All proper permitting and licensing records (as required), including those from the St. Clair County Health Department, shall be submitted to the Township.
- iii. Noise emanating from such use shall meet the acceptable decibel requirements set forth in this Ordinance.
- iv. Lighting shall be shielded downward away from adjacent residences.
- v. Signs shall meet the requirements of this Ordinance.
- vi. No outdoor storage shall be permitted. All storage shall be permitted. All storage shall occur within existing buildings.

Appendix C:

The following case studies will provide examples from Michigan and around the country on farmland preservation practices in use.

Montgomery County, MD

Approach:

Transfer of Development Rights (TDR)

Jurisdiction:

Montgomery County, MD

Description:

Prior to 1980, Montgomery County was losing approximately 3,000 acres of farmland to development each year (Ag. Advisory Committee & Scarfo, 1995). This led to major steps to be taken by officials in order to preserve farmland and open space within the County. Creation of a 90,000 acre Agricultural Preserve, also known as the Rural Density Transfer Zone structured within the County's master plan would set standards for preservation. The Rural Density Transfer (RDT) Zone changed the number of residential dwellings permitted under the Rural Zone to decrease from one dwelling per five acres to one dwelling per twenty-five acres (Ag. Advisory Committee & Scarfo, 1995).

Establishment of a TDR program purportedly compensated farmers for the reduced equity in their land due to the lower number of dwellings permitted in the new RDT Zone (Ag. Advisory Committee & Scarfo, 1995). The RDT Zone would also serve as the sending area for the TDR, farmers within the sending area can sell development rights at one per five acres to be used by developers within the receiving areas. This would be equal to the number of developments that were allowed prior to 1980 in the Rural Zone.

Analysis:

With the advent of a TDR program in 1980, indicators for success or failure can much easier be looked upon. Various reports have surfaced through the 1990's pertaining to the state of the program and Montgomery County in general in terms of preservation. The RDT Zone encompasses approximately 90,000 acres of which 70,000 acres consist of farmland with the remaining acreage comprised of parkland and previously developed land (Criss, 1997). A combination of preservation tools has been employed within the RDT Zone, achieving easements on 47,389 acres as of 1997. This equates to approximately 68% of the total farmland acreage within the Agricultural Reserve. Of the 47,389 acres preserved, 38,251 have been placed in easement through the TDR program (Criss, 1997). Direct success of the TDR program can be witnessed in Montgomery County due to the number of acres preserved.

Montgomery County has set a standard for TDR programs, and has provided valuable information into formulation and participation in the program.

TDR Formulation:

- Create the TDR sending area around the remaining farmland and determine the total acreage
- Determine the rate in which farmers can sell TDRs and determine the total number of TDRs that would be potentially for sale
- Identify areas within the Urban Growth Corridors where development exists and where public utilities are available or planned to accommodate development
- Create sufficient TDR receiving areas for all of the TDRs potentially available for sale from the sending area. This will ensure a proper supply – demand equation resulting in favorable sale prices for farmers

TDR Participation:

- Farmers must be willing to give up certain development rights from their farms to ensure that farmland is protected for future generations.
- Developers must be willing to purchase TDRs as a means to increase development densities in planned urban growth areas
- Citizens living in close proximity to TDR receiving areas must accept increased congestion by recognizing the needs and benefits for protecting farmland by directing development into planned urban growth areas resulting in more efficient land use through higher densities.

Sauk County, Wisconsin Baraboo Range Protection Plan: Purchase of Development Rights**Approach:**

Purchase of Development Rights

Jurisdiction:

Sauk County, Wisconsin

Description:

Sauk County is located in southwestern Wisconsin. A large part of this County is in the Baraboo Range or Baraboo Hills as it is also called. This hilly area is the largest section of mostly deciduous forest left in the upper Midwestern United States. This forested area has been nationally recognized for excellent geology and diverse ecological resources. The many different elevations, exposures, and soils of the area make a wide range of different ecological habitats including high, dry tock strata with white pine trees dominating, rocky cliffs with a lot of lichens and mosses, cool steep valleys and ravines filled with hemlock, dry and wet prairie, and marshes. This small part of Wisconsin, also, has over half of the 2,200 vascular plants in the state.

The main method of conservation is using a Purchase of Development Rights (PDR) program. The program results in the purchase of the development rights of owners of property in this area with a conservation easement subsequently put on the land. The funding for whole program, including the actual purchase of the development rights and administration of the program by Sauk County, consists of a \$5,000,000 grant from the Wisconsin Department of Transportation, state stewardship funds, and matching funds obtained through Sauk County all adding up to a total of \$15,000,000.

Analysis:

There are a lot of benefits for property owners. One excellent benefit is that the program is completely voluntary. The owners who sell their development rights keep their titles to the land and can continue to use the land. They also receive fair market value and immediate cash compensation for the sale. The owners quickly gain some extra funds to put back into their farms or other purposes, are no longer pressured to sell their land to developers, and their land permanently protected from development.

One weakness of the program is that it was not negotiated completely in the public. The County, state, and federal agencies helped create it. Another weakness is that negotiations of purchases of development rights and conservation easements are complicated and take a long time. Obtaining professional appraisals of the value of conservation easements is also complicated and takes a long time. Two more weaknesses are that funding for the program will run out in the not too distant future, though the funded projects must have ongoing monitoring, and a staff has to be hired to track easements and have close communication with landowners to maintain trust and confidence.

One result of the program is that twenty-two Baraboo Range landowners had sold development rights with easements to Sauk County by August 2004. This conserves more than 2000 acres of land. A partnership between Sauk County government, The Nature Conservancy Baraboo Range staff, and some staff and departments within the Wisconsin Department of Natural Resources has also been created. There is enough funding left to purchase development rights from 10 to 12 more property owners.

This program does not preserve farmland per se, however, it does protect undeveloped land from development. It could easily be used to protect farmland the way it protects forestland. As such, the program could do a lot for the protection of farmland in St. Clair County. The program is effective and gives benefits to the owners of the preserved farms. This is also an example of the combination of a purchase of development rights program and conservation easements. A purchase of development rights program could provide direction for St. Clair County if enabling legislation became available.

Washtenaw Land Trust

Jurisdiction:

The Washtenaw Land Trust protects open space and agricultural lands in Washtenaw, Jackson, and Ingham counties, of Michigan.

Approach:

A land trust can be defined as a non-profit, non-governmental, charitable organization that helps interested landowners and communities discover methods of protecting their land from over-development so it can continue to provide open space, farmland, habitat, clean water, scenic beauty and other values of public benefit.

Description:

The Washtenaw Land Trust helps protect land using four main methods: purchasing natural preserves, entering conservation easement agreements, offering free services to landowners applying to the State of Michigan Farmland Protection Program (PDR), and through land transfers to public agencies.

Analysis:

- *Natural Preserves:* The Washtenaw Land Trust owns four natural preserves, all of which were donated, totaling in 139 acres. These preserves are open for public use however, some activities such as hunting are not permitted.
- *Conservation Easements:* Agricultural lands, places of aesthetic value, woods, wetlands, riverfronts and areas of wildlife habitat are among the types of property protected through conservation easements with the land trust. The largest property protected with the assistance of the WLT is 116 acres.
- *Farmland Protection:* The development rights of 710 acres of farmland have been purchased through the State of Michigan PDR Program, permanently protecting the property of five landowners, due to the assistance of the WLT.
- *Land Transfer:* In Ann Arbor, Bandemer Park, Black Pond Woods and an extension to Bird Hills Park; and the Osborne Mill Riverlands Preserve in Scio Township, were all secured and protected by the WTL, which allowed the respective local governments to purchase the property at a later date.

The Washtenaw Land Trust protected 488 acres of land in the year 2006 alone, for a grand total of 2,500 acres on 48 properties. The WLT strongly supports the preservation of farmlands and should be used as a model organization for other communities with a desire to do so.

<http://www.washtenawlandtrust.org/>

Case Study Contact Information:

Sauk County, Wisconsin:

Dave Tremble, Land Preservation Specialist/Planner
Sauk County Dept. of Planning and Zoning
WEST SQUARE BUILDING, Room 248,
505 Broadway, Baraboo, WI 53913
(608) 355-3485; dtremble@co.sauk.wi.us

Montgomery County, Maryland:

Montgomery County Executive
Ike Leggett
Executive Office Building
101 Monroe Street, 2nd Floor
Rockville, MD 20850
(240) 777-2500

Washtenaw County, Michigan:

Western County Service Center
705 N. Zeeb Rd.
P.O. Box 8645
Ann Arbor, MI 48107-8645
(734) 222-3800

Appendix D:

Agriculture Tourism Contact Information:

Blueridge Blueberry Farm

Capac, MI

Phone: 810-395-2245

Email: dlk_bf@yahoo.com

McCallum's Orchard and Cider Mill

Jeddo, MI

Phone: 810-327-6394

Email: loriruthruff@excite.com

St. Clair/Blue Water Farmer's Market

St. Clair, MI

Phone: 810-329-9358

Maple Creek Farm

11841 Speaker Road

Yale, MI 48097

Phone: 810-387-4365

Appendix E

	1982	1987	1992	1997	2002
Number of Farms	1,302	1,092	988	940	1,260
Total Farms in Acres	205,706	177,068	181,569	162,887	182,116
Average Size of Farms (acres)	158	162	184	173	145
Total Land Area in St. Clair County (acres)	460,451	460,451	460,451	460,451	460,451
Total Cropland (acres)	176,126	148,961	160,910	140,705	153,649
Total Harvested Cropland (acres)	143,393	107,002	126,028	118,551	133,720
Market Value of Agricultural Products Sold: Average Per Farm (dollars)	28,664	33,420	36,891	38,378	31,909
Total Farm Production Expenses (\$1,000)		30,664	32,785	31,934	44,031
Total Farm Production Expenses : Average Per Farm (dollars)		28,081	33,183	31,934	34,918
Net Cash Return From Agricultural Sales Per Farm Unit (\$1,000)		6,134	3,402	4,512	-1,116
Net Cash Return From Agricultural Sales Per Farm Unit: Average Per Farm (dollars)		5,618	3,443	4,810	-855
Operators Principle Occupation...Farming (number)	615	490	464	426	686
Operators Principle Occupation...Other (number)	687	602	524	514	584
All Sales by Commodity or Commodity Group:					
Crops Including All Nursery and Greenhouse Crops (\$1,000)		18,776	20,845	2,314,487	2,362,628
Livestock, Poultry, and Their Products (\$1,000)		17,719	15,603	1,380,183	1,409,807
Farms by Standard Industrial Classification (S.I.C.) Coding: (number)					
Cash Grains - 011	543	395	402		

Field Crops, Except Cash Grains - 013	110	153	107		
a.) Cotton - 0131	-	-	-		
b.) Tobacco - 0132	-	-	-		
c.) Sugar Crops - 0133	*	*	*		
d.) Irish Potatoes - 0134	*	*	*		
e.) Field Crops, Except Cash Grains, (Hay, Peanuts, and Other Field Crops) - 0139	110	153	107		
Vegetables and Melons - 016	44	24	32		
Fruits and Tree Nuts - 017	22	17	22		
Horticultural Specialties - 018	27	33	31		
General Farms, Primarily Crop - 019	58	74	42		
Livestock, Except Dairy, Poultry, and Animal Specialties - 021	280	217	195		
a.) Beef Cattle, Except Feedlots - 0212	122	81	78		
Dairy Farming and Dairy Products - 024	118	82	70		
Poultry and Eggs Farming - 025	10	10	15		
Animal Specialties Farming - 027	75	75	64		
General Farms, Primarily Livestock - 029	15	12	8		
Farms by North American Industrial Classification System (N.A.I.C.S.) Coding: (number)	1982	1987	1992	1997	2002
Oilseed and Grain Farming - 1111				411	403
Vegetable and Melon Farming - 1112				30	33
Fruit and Tree Nut Farming - 1113				12	24
Greenhouse, Nursery, and Floriculture Production - 1114				60	68
Other Crop Farming - 1119				132	302
a.) Tobacco Farming - 11191				-	-
b.) Cotton Farming - 11192				-	-
c.) Sugarcane Farming - 11193				*	*
d.) Hay Farming - 11194				*	*

e.) All Other Crop Farming - 11199				132	302
Beef Cattle Ranching and Farming - 1121111				89	86
Cattle Feedlots - 112112				48	55
Dairy Cattle and Milk Production - 11212				30	33
Hog and Pig Farming - 1122				7	15
Poultry Farming and Egg Production - 1123				9	14
Sheep and Goat Farming - 1124				14	14
Animal Aquaculture - 1125				*	*
Other Animal Production - 1129				98	213
Hired Farm Labor - Workers and Payroll:					
Farms with 1 worker (farms)	143		65	51	118
Farms with 1 worker (workers)	143		65	51	118
Farms with 2 workers (farms)	44		59	37	23
Farms with 2 workers (workers)	88		118	74	46
Farms with 3 or 4 workers (farms)	63		49	36	43
Farms with 3 or 4 workers (workers)	207		151	135	142
Farms with 5 to 9 workers (farms)	46		28	14	58
Farms with 5 to 9 workers (workers)	295		171	80	370
Farms with 10 or more workers (farms)	14		16	14	11
Farms with 10 or more workers (workers)	247		309	318	170
Hired farm labor (farms)	310		217	152	253
Hired farm labor (workers)	980		814	658	846
Hired farm labor (\$1,000 payroll)	2,411		2,573	2,839	3,893
Contract Labor:					
Contact labor (farms)		27	37	53	102
Contract labor expenses (\$1,000)		(D)	62	80	379

Net Cash Return from Agricultural Sales for the Farm Unit:					
Farms with Net Losses -	1982	1987	1992	1997	2002
a.) Number of Farms		683	652	503	929
b.) Total Net Losses (\$1,000)		3,438	4,555	3,361	N/A
c.) Average Net Loss per Farm Unit (dollars)		5,033	6,986	6,681	11,458
Net Cash Return from Agricultural Sales for the Farm Unit:					
Farms with Net Gains -					
a.) Number of Farms		409	336	435	332
b.) Total Net Gains (\$1,000)		9,572	7,957	7,873	N/A
c.) Average Net Gain per Farm Unit (dollars)		23,404	23,681	18,099	28,699
Government Payments Received:					
a.) Number of Farms		248	219	285	294
b.) Total Amount Received in Government Payments (\$1,000)		3,104	1,168	1,275	1,612
c.) Average Amount of Government Payments Received per Farm Unit (dollars)		12,517	5,335	4,472	5,484
Commodity Credit Corporation Loans:					
a.) Number of Farms	52	96	18	14	51
b.) Total Amount Received in Commodity Credit Loans (\$1,000)	2,937	2,253	432	1,027	1,893
Number of Farms by Value Group: 1982-1997					
\$1 to \$39,999			80	68	
\$40,000 to \$69,999			84	76	
\$70,000 to \$99,999			173	90	
\$100,000 to \$149,999			166	80	
\$150,000 to \$199,999			69	121	
\$200,000 to \$499,999			304	307	
\$500,000 to \$999,999			93	119	

\$1,000,000 to \$1,999,999			14	55	
\$2,000,000 to \$4,999,999			5	20	
\$5,000,000 or more			-	2	
Number of Farms by Value Group: 2002-present					
\$1 to \$49,999					26
\$50,000 to \$99,999					113
\$100,000 to \$199,999					201
\$200,000 to \$499,999					684
\$500,000 to \$999,999					101
\$1,000,000 to \$1,999,999					49
\$2,000,000 to \$4,999,999					66
\$5,000,000 to \$9,999,999					19
\$10,000,000 or more					2
Value of Agricultural Products Sold Directly to Individuals for Human Consumption:					
a.) Farms with Direct Sales (number)	N/A	N/A	99	90	105
b.) Total Sales (\$1,000)	N/A	N/A	478	387	930
c.) Average Direct Sales per Farm Unit (dollars)	N/A	N/A	4,830	4,298	-
Approximate Size of Farm For St. Clair County:					
Farms 1 to 9 acres					
a.) Farms (number)	50	36	41	55	83
b.) Total Land (acres)	207	147	207	299	490
Farms 10 to 49 acres					
a.) Farms (number)	352	292	298	274	531
b.) Total Land (acres)	9,882	7,901	8,357	7,485	13,982
Farms 50 to 69 acres					
a.) Farms (number)	110	96	83	79	133
b.) Total Land (acres)	6,443	(D)	4,881	4,533	7,694
Farms 70 to 99 acres					

a.) Farms (number)	178	145	124	134	127
b.) Total Land (acres)	14,380	11,853	10,014	10,755	10,206
Farms 100 to 139 acres					
a.) Farms (number)	163	152	104	88	91
b.) Total Land (acres)	19,147	17,763	12,092	10,064	10,692
Farms 140 to 179 acres					
a.) Farms (number)	94	95	66	61	61
b.) Total Land (acres)	14,744	14,708	10,380	9,654	9,587
Farms 180 to 219 acres					
a.) Farms (number)	81	47	48	50	44
b.) Total Land (acres)	15,916	9,195	9,557	9,880	8,795
Farms 220 to 259 acres					
a.) Farms (number)	51	43	33	40	46
b.) Total Land (acres)	12,229	10,236	7,832	9,451	10,961
Farms 260 to 499 acres					
a.) Farms (number)	155	120	112	96	78
b.) Total Land (acres)	51,782	41,686	38,798	34,036	28,863
Farms 500 to 999 acres					
a.) Farms (number)	52	47	59	41	35
b.) Total Land (acres)	35,352	(D)	41,135	28,557	25,288
Farms 1,000 to 1,999 acres					
a.) Farms (number)	12	16	12	17	27
b.) Total Land (acres)	15,876	(D)	14,082	20,482	36,054
Farms 2,000 acres or more					
a.) Farms (number)	4	3	8	5	4
b.) Total Land (acres)	9,748	(D)	24,234	17,690	19,504

Approximate Land Area:	1982	1987	1992	1997	2002
a.) Total Area (acres)					
1.) State of Michigan	36,354,446	36,354,446	36,354,446	36,354,446	36,354,446
2.) St. Clair County	463,651	463,651	463,651	463,651	463,651
3.) Sanilac County	616,831	616,831	616,831	616,831	616,831
4.) Lapeer County	418,691	418,691	418,691	418,691	418,691
5.) Macomb County	307,480	307,480	307,480	307,480	307,480
b.) Proportion in Farms (percent)					
1.) State of Michigan					27.9
2.) St. Clair County		37.7	39.2	35.1	39.3
3.) Sanilac County					70.5
4.) Lapeer County					45.2
5.) Macomb County					22.1
Harvested Cropland by Size of Farm:					
1.) State of Michigan					
a.) Total Farms (number)				42,704	38,244
b.) Acres Harvested (acres)				6,989,300	6,827,903
2.) Sanilac County					
a.) Total Farms (number)				1,284	1,145
b.) Acres Harvested (acres)				340,770	340,659
3.) Lapeer County					
a.) Total Farms (number)				966	838
b.) Acres Harvested (acres)				126,567	130,962
4.) Macomb County					
a.) Total Farms (number)				504	395
b.) Acres Harvested (acres)				53,645	51,755
5.) St. Clair County					
a.) Total Farms (number)	1,178	984	883	940	935
b.) Acres Harvested (acres)	143,393	107,002	126,028	127,932	133,720

Harvested Cropland by Size of Farm:	1982	1987	1992	1997	2002
1 to 9 acres					
a.) Farms (number)		13	21	26	33
b.) Land (acres)		33	68	81	118
10 to 49 acres					
a.) Farms (number)		231	234	207	335
b.) Land (acres)		3,593	3,526	3,041	4,631
50 to 69 acres					
a.) Farms (number)		89	74	71	102
b.) Land (acres)		2,573	2,636	2,249	3,290
70 to 99 acres					
a.) Farms (number)		140	119	121	103
b.) Land (acres)		5,498	4,684	5,428	4,247
100 to 139 acres					
a.) Farms (number)		146	101	86	79
b.) Land (acres)		8,559	6,098	5,914	5,932
140 to 179 acres					
a.) Farms (number)		93	65	54	53
b.) Land (acres)		8,169	6,227	4,923	5,424
180 to 219 acres					
a.) Farms (number)		47	46	47	44
b.) Land (acres)		4,640	4,904	5,238	5,749
220 to 259 acres					
a.) Farms (number)		43	33	40	45
b.) Land (acres)		6,654	5,178	6,185	8,092
260 to 499 acres					
a.) Farms (number)		116	111	94	76
b.) Land (acres)		27,816	27,958	25,447	22,145
500 to 999 acres					
a.) Farms (number)		47	59	41	34

b.) Land (acres)	(D)	33,109	24,526	21,972		
1,000 to 1,999 acres						
a.) Farms (number)		16	12	17	27	
b.) Land (acres)	(D)	11,839	19,069	33,592		
2,000 acres or more						
a.) Farms (number)		3	8	5	4	
b.) Land (acres)		5,237	19,801	16,450	18,528	
Land in Farms According to Use:						
		1982	1987	1992	1997	2002
a.) Total Cropland (acres)						
1.) State of Michigan				8,273,748	7,983,574	
2.) St. Clair County	176,126	148,961	160,910	140,705	153,649	
3.) Sanilac County				391,951	382,064	
4.) Lapeer County				154,267	153,231	
5.) Macomb County				63,406	58,519	
b.) Harvested Cropland (acres)						
1.) State of Michigan				6,989,300	6,827,903	
2.) St. Clair County	143,393	107,002	126,028	118,551	133,720	
3.) Sanilac County				340,770	340,659	
4.) Lapeer County				126,567	130,962	
5.) Macomb County				53,645	51,755	
c.) Total Woodland (acres)						
1.) State of Michigan				1,243,970	1,224,237	
2.) St. Clair County	14,054	14,493	12,002	11,763	13,596	
3.) Sanilac County				25,326	24,474	
4.) Lapeer County				20,194	18,948	
5.) Macomb County				5,142	4,247	
d.) Other Land (acres)						
1.) State of Michigan				756,349	746,375	

2.) St. Clair County	15,526	13,614	8,637	10,419	11,715
3.) Sanilac County				36,281	32,472
4.) Lapeer County				16,069	13,468
5.) Macomb County				7,859	4,886
e.) Pastureland					
1.) State of Michigan				904,911	825,527
2.) St. Clair County	17,195	15,868	10,793	11,469	14,207
3.) Sanilac County				24,027	16,645
4.) Lapeer County				16,569	16,006
5.) Macomb County				3,445	4,174
f.) Land Under Conservation or Wetlands Reserve Programs (acres)					
1.) State of Michigan				322,667	299,666
2.) St. Clair County	N/A	220	741	2,638	1,874
3.) Sanilac County				20,713	19,727
4.) Lapeer County				3,121	2,761
5.) Macomb County				1,502	159
Type of Organization Per Farm Unit in St. Clair County:					
1982 1987 1992 1997 2002					
1.) Individual or Family Owned Farm					
a.) Farms (number)	1,184	996	905	843	1,169
b.) Total Land (acres)	166,034	144,572	138,713	116,523	139,589
2.) Partnership					
a.) Farms (number)	98	83	66	71	61
b.) Total Land (acres)	33,513	(D)	34,597	36,231	37,318
3.) Family-Held Farm Corporation					
a.) Farms (number)	16	11	12	22	24
b.) Total Land (acres)	(D)	(D)	2,064	7,973	4,820
4.) Non-Family-Held Farm Corporation					

a.) Farms (number)	1	1	4	3	2
b.) Total Land (acres)	(D)	(D)	(D)	(D)	(D)
5.) Other					
a.) Farms (number)	3	1	1	4	4
b.) Total Land (acres)	684	(D)	(D)	(D)	(D)
Market Value of Agricultural Products Sold; Sales By Commodity or Commodity Group:					
St. Clair County (\$1,000)					
1.) Corn for Grain	6,649	4,847	4,306	3,751	*
2.) Wheat	429	282	2,273	1,714	*
3.) Soybeans	6,490	5,799	7,409	11,738	*
4.) Sorghum for Grain	-	(D)	(D)	(D)	*
5.) Barley	N/A	(D)	(D)	36	*
6.) Oats	854		176	70	*
7.) Other Grains	595	210	121	(D)	*
8.) Cotton and Cottonseed	-	-	-	-	-
9.) Tobacco	-	-	-	-	-
10.) Hay, Silage, and Field Seeds	954	945	1,042	1,577	2,223
11.) Vegetables, Melons, Potatoes, and Sweet Potatoes	1,442	784	818	1,664	1,837
12.) Fruits, Tree Nuts, and Berries	302	392	331	187	297
13.) Nursery and Greenhouse Crops	1,680	4,145	3,483	5,314	6,929
14.) Other Crops	460	754	847	1,053	N/A
15.) Poultry and Poultry Products	(D)	(D)	(D)	(D)	(D)
16.) Dairy Products	7,684	5,858	5,708	3,470	3,221
17.) Cattle and Calves	5,411	6,492	6,821	2,778	3,166
18.) Hogs and Pigs	774	777	434	352	687
19.) Sheep, Lambs and Wool Products	41	(D)	(D)	(D)	126
20.) Other Livestock and Animal Specialties Products	(D)	394	455	628	1,902

Market Value of Agricultural Products Sold; Sales by Commodity or Commodity Group:	1982	1987	1992	1997	2002
Livestock and Poultry -					
A.) State of Michigan (\$1,000)					
1.) Poultry and Poultry Products				169,246	146,700
2.) Dairy Products				646,771	697,920
3.) Cattle and Calves				284,374	298,517
4.) Hogs and Pigs				227,452	200,027
5.) Sheep, Lambs, and Wool Products				5,911	6,613
6.) Other Livestock and Livestock Specialties				41,968	60,031
B.) Lapeer County (\$1,000)					
1.) Poultry and Poultry Products				127	2,267
2.) Dairy Products				11,455	8,426
3.) Cattle and Calves				8,629	5,319
4.) Hogs and Pigs				584	297
5.) Sheep, Lambs, and Wool Products				87	291
6.) Other Livestock and Livestock Specialties				1,096	641
C.) Macomb County (\$1,000)					
1.) Poultry and Poultry Products				(D)	75
2.) Dairy Products				1,594	1,091
3.) Cattle and Calves				589	2,462
4.) Hogs and Pigs				(D)	24
5.) Sheep, Lambs, and Wool Products				30	22
6.) Other Livestock and Livestock Specialties				332	166
D.) Sanilac County (\$1,000)					
1.) Poultry and Poultry Products				76	197
2.) Dairy Products				45,352	42,109
3.) Cattle and Calves				10,488	16,200
4.) Hogs and Pigs				1,553	682
5.) Sheep, Lambs, and Wool Products				21	134

6.) Other Livestock and Livestock Specialties				309	674
E.) Saint Clair County (\$1,000)					
1.) Poultry and Poultry Products				(D)	(D)
2.) Dairy Products				3,470	3,221
3.) Cattle and Calves				2,778	3,166
4.) Hogs and Pigs				687	352
5.) Sheep, Lambs, and Wool Products				(D)	126
6.) Other Livestock and Livestock Specialties				628	1,902
Market Value of Agricultural Products Sold; Sales by Commodity or Commodity Group:	1982	1987	1992	1997	2002
Crops -					
A.) State of Michigan					
1.) Corn for Grain (bushels)				234,709,542	
2.) Wheat (bushels)				28,248,938	
3.) Soybeans (bushels)				78,197,248	
4.) Sorghum for Grain (bushels)				21,255	
5.) Barley (bushels)				576,461	
6.) Oats (bushels)				3,994,940	
7.) Other Grain (bushels)				676,339	
8.) Hay, Silage, and Field Seeds (Tons)				11,461,083	
9.) Total Sales for Grain Crops (\$1,000)				990,921	
10.) Cotton and Cottonseed (Tons)				-	
11.) Tobacco (Tons)				-	
12.) Vegetables, Melons, Potatoes, and Sweet Potatoes (\$1,000)				322,510	
13.) Fruit, Tree Nuts, and Berries (\$1,000)				181,469	
14.) Nursery and Greenhouse Crops (\$1,000)				628,699	
15.) Other Crops (Tons)				22,399,881	
B.) Lapeer County					

1.) Corn for Grain (bushels)						3,641,648
2.) Wheat (bushels)						416,494
3.) Soybeans (bushels)						2,063,110
4.) Sorghum for Grain (bushels)						(D)
5.) Barley (bushels)						26,285
6.) Oats (bushels)						123,595
7.) Other Grain (bushels)						10,568
8.) Hay, Silage, and Field Seeds (Tons)						236,837
9.) Total Sales for Grain Crops (\$1,000)						16,299
10.) Cotton and Cottonseed (Tons)						-
11.) Tobacco (Tons)						-
12.) Vegetables, Melons, Potatoes, and Sweet Potatoes (\$1,000)						7,616
13.) Fruit, Tree Nuts, and Berries (\$1,000)						571
14.) Nursery and Greenhouse Crops (\$1,000)						5,655
15.) Other Crops (Tons)						33,556
C.) Macomb County	1982	1987	1992	1997	2002	
1.) Corn for Grain (bushels)						1,109,660
2.) Wheat (bushels)						167,721
3.) Soybeans (bushels)						925,931
4.) Sorghum for Grain (bushels)						(D)
5.) Barley (bushels)						(D)
6.) Oats (bushels)						43,236
7.) Other Grain (bushels)						1,150
8.) Hay, Silage, and Field Seeds (Tons)						71,500
9.) Total Sales for Grain Crops (\$1,000)						7,236
10.) Cotton and Cottonseed (Tons)						-
11.) Tobacco (Tons)						-
12.) Vegetables, Melons, Potatoes, and Sweet Potatoes (\$1,000)						6,735

13.) Fruit, Tree Nuts, and Berries (\$1,000)					1,599
14.) Nursery and Greenhouse Crops (\$1,000)					23,541
15.) Other Crops (Tons)					605
D.) Saint Clair County					
1.) Corn for Grain (bushels)					2,997,114
2.) Wheat (bushels)					344,874
3.) Soybeans (bushels)					2,664,397
4.) Sorghum for Grain (bushels)					-
5.) Barley (bushels)					5,511
6.) Oats (bushels)					79,753
7.) Other Grain (bushels)					605
8.) Hay, Silage, and Field Seeds (Tons)					105,579
9.) Total Sales for Grain Crops (\$1,000)					19,938
10.) Cotton and Cottonseed (Tons)					-
11.) Tobacco (Tons)					-
12.) Vegetables, Melons, Potatoes, and Sweet Potatoes (\$1,000)					1,837
13.) Fruit, Tree Nuts, and Berries (\$1,000)					297
14.) Nursery and Greenhouse Crops (\$1,000)					6,929
15.) Other Crops (Tons)					31,104
E.) Sanilac County					
	1982	1987	1992	1997	2002
1.) Corn for Grain (bushels)					10,177,774
2.) Wheat (bushels)					2,368,640
3.) Soybeans (bushels)					5,030,902
4.) Sorghum for Grain (bushels)					-
5.) Barley (bushels)					23,835
6.) Oats (bushels)					428,896
7.) Other Grain (bushels)					11,186
8.) Hay, Silage, and Field Seeds (Tons)					646,233

9.) Total Sales for Grain Crops (\$1,000)	54,164
10.) Cotton and Cottonseed (Tons)	-
11.) Tobacco (Tons)	-
12.) Vegetables, Melons, Potatoes, and Sweet Potatoes (\$1,000)	984
13.) Fruit, Tree Nuts, and Berries (\$1,000)	262
14.) Nursery and Greenhouse Crops (\$1,000)	
15.) Other Crops (Tons)	666,574

Endnotes:

¹Under development includes two types of areas, 1. The acreage not built on in areas where new residential construction is partially completed, and 2. Areas where ground breaking has occurred and no land use type could be determined

² Soil Survey of St. Clair County, Michigan U.S. Department of Agriculture Soil Conservation Service in cooperation with Michigan Agricultural Experiment Station. Issued May 1974, General Soils Map. Item One.

³ American Farmland Trust; Farmland Information Center Fact Sheet (Cost of Community Services Studies)

⁴ The Agricultural Census was changed in 2002 from previous censuses by combining all grain commodities into a single grain classification. Thus, comparisons between the 2002, 1997 and earlier census commodity groupings cannot be compared exactly with the same method. However, data is given for yield amounts and total commodity market values annually.

⁵ The North American Industrial Classification System (N.A.I.C.S.) was used to replace the older Standard Industrial Classification System (S.I.C.), which was used to break down the industry into commodity groups. It should also be noted that new commodity groups were added to the NAICS that were used in a combined commodity industry within the older SIC system.

⁶ Net cash farm income of the operator is a new concept in the USDA 2002 Ag. Census, it is somewhat comparable to the previous censuses account for total revenues minus total expenses, which was previously used by the USDA.

⁷ Data was unavailable for the year 2002 in net gains and losses in dollars

⁸ USDA 2002 Agricultural Census, Appendix A A-13.

⁹ Southeast Michigan Council of Governments. (2001). *2030 Regional Development Forecast for Southeast Michigan: Population, Households, and Jobs, for Cities, Villages, and Townships 1990-2030.*

¹⁰ Ira Township Zoning Ordinance: Section 401 (Special Land Uses): (I) Agri-business (Value Added Farming Operation Amendment 2005

¹¹ Michigan Agricultural Tourism Advisory Commission. Agricultural Tourism Local Zoning Guidebook and Model Zoning Ordinance Provision, 2007.

¹² United States Department of Agriculture and the Natural Resources Conservation Service. Alternative Enterprises-Valued Added Agriculture.

¹³ Community Supported Agriculture (CSA): An Annotated Bibliography and Resource Guide by Suzanne DeMuth, September 1993.

¹⁴ AgMRC, How to Become Involved in Adding Value. Mike Boland, Department of Agriculture Economics at Kansas State University.

¹⁵ Michigan Agricultural Tourism Advisory Commission, Report of Recommendations. 2007.