

Introduction to the Wayne Township, Michigan Master Plan

In 2014, Wayne Township participated in a collaborative master planning process with Cass County and other local governmental units. This initiative was a groundbreaking effort in regional planning. Each participating jurisdiction conducted its own public hearings and community surveys to gather input and guide the development of its individual master plan.

These individual plans were then incorporated into the larger Cass County Master Plan. The resulting document includes sections relevant to all participating entities, as well as portions tailored specifically to each jurisdiction.

For the purposes of presenting the Master Plan on the Wayne Township website, we have included all sections that are directly applicable to Wayne Township. Content that pertains exclusively to other jurisdictions has been excluded for clarity and relevance.

Chapter One

INTRODUCTION

Introduction

This Chapter provides an overview of the Cass County Master Plan and the Master Plan's role, importance, preparation process, and principal policies.

The plan concerns itself with long-range planning to guide and manage future growth and development in response to growth, development and preservation interests. The Plan is intended to be continually evolving in light of changing aspirations, changing conditions, and evolving strategies to address growth, development and preservation.

A Regional Planning Initiative and "Local Participating Municipalities"

This Master Plan is the culmination of an extraordinary effort by Cass County to prepare a planning tool that not only serves the county region as a whole but functions as the official master plan of six local communities. These communities are:

Village of Edwardsburg	Silver Creek Township
Village of Vandalia	Volinia Township
Pokagon Township	Wayne Township

These communities were uniquely involved in the development of this Master Plan as it applies to their jurisdictions specifically. For the purposes of this Plan, the six communities are referred to as "Local Participating Municipalities."

This Plan is not intended to usurp the wisdom of officials at the city, village and township level. This Plan is founded on the principle that all land use and infrastructure decisions that do not involve issues of greater than local concern should be made at the local governmental level.

This Master Plan is not a law or regulatory document, but a "policy plan" to be implemented through regulatory and non-regulatory tools, including zoning provisions in the case of the six Local Participating Municipalities.

Purpose of the Master Plan and Enabling Authority

Purpose

It is the principal purpose of this Master Plan to establish strategies for managing growth that protects and enhances the unique character of Cass County and the quality of life within. In doing so, the strategies emphasize balancing environmental protection, resource management, housing and economic development, to encourage a sustainable economy that provides prosperity for all and without sacrificing the county's rich natural resources and environmental integrity. This purpose equally applies to the six Local Participating Municipalities within the context of the local conditions that characterize each.

Zoning Ordinance Must be Based on a Master Plan

The Michigan Zoning Enabling Act, which provides Michigan municipalities with the statutory authority to adopt zoning, stipulates that a municipality's land development regulations "...shall be based upon a plan designed to promote the public health, safety, and general welfare, to encourage the use of lands in accordance with their character and adaptability, to limit the improper use of land, to conserve natural resources and energy..."

This Master Plan addresses this statutory requirement and establishes a strong legal foundation for the zoning regulations of the six Local Participating Municipalities.

Enabling Authority

This Master Plan was prepared under the authority of the Michigan Planning Enabling Act (P.A 33 of 2008, as amended). The Act delineates the purpose of a master plan and certain procedures for its preparation including communications with regional governmental entities, public hearings, and approval requirements. The county followed the statutory requirements for the development and approval of this Plan. The six Local Participating Municipalities similarly complied with the procedural requirements of the Act, in general orchestration with the county.

Purpose of the Master Plan

Section 7(2) of the Michigan Planning Enabling Act (MCL 125.3807) provides:

The general purpose of a master plan is to guide and accomplish, in the planning jurisdiction and its environs, development that satisfies all of the following criteria:

- (a) Is coordinated, adjusted, harmonious, efficient, and economical.*
- (b) Considers the character of the planning jurisdiction and its suitability for particular uses, judged in terms of such factors as trends in land and population development.*
- (c) Will, in accordance with present and future needs, best promote public health, safety, morals, order, convenience, prosperity, and general welfare.*
- (d) Includes, among other things, promotion of or adequate provision for 1 or more of the following:*
 - (i) A system of transportation to lessen congestion on streets.*
 - (ii) Safety from fire and other dangers.*
 - (iii) Light and air.*
 - (iv) Healthful and convenient distribution of population.*
 - (v) Good civic design and arrangement and wise and efficient expenditure of public funds.*
 - (vi) Public utilities such as sewage disposal and water supply and other public improvements.*
 - (vii) Recreation.*
 - (viii) The use of resources in accordance with their character and adaptability.*

Elements of the Master Plan

This Master Plan consists of the following key components:

Chapter One (Introduction) presents an overview of the purpose and role of the Plan, the process followed in its preparation, and key planning policies.

Chapter Two (Planning Issues) presents important planning issues facing the county and Local Participating Municipalities.

Chapter Three (Goals and Objectives) presents goal and objective statements in response to the planning issues identified in Chapter Two.

Chapter Four (Future Land Use Plan) presents future land use policies.

Chapter Five (Coordinated Public Services) presents policies addressing the coordination of public services with the goals, objectives, and future land use policies.

Chapter Six (Implementation) presents key measures to effectuate the policies of the Plan.

The Appendices present an overview of conditions and trends in the county including the Local Participating Municipalities, addressing such features as roads, land use, public services, soils, topography, water resources and demographic features.

Importance and Application of the Master Plan

The importance and application of this Master Plan are demonstrated within the context of both long-term interests and day-to-day planning efforts.

Support for Long Term Interests

For both Cass County and the six Local Participating Municipalities, there are a number of interests that can be expected to continue for years to come. Some of these important interests include:

- Protecting and enhancing the overall character of the county.
- Protecting and enhancing the character of the six Local Participating Municipalities including the rural character of the townships of Pokagon, Silver Creek, Volinia, and Wayne, and the more urban fabric of the villages of Edwardsburg and Vandalia.
- Protecting the quality of life.
- Protecting natural resources, including farmland, forest lands, wetlands, water resources and wildlife.
- Minimizing tax burdens.

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- Ensuring appropriate land use and adequate services to protect the public health, safety, and welfare.
- Ensuring compatibility with the use and development of neighboring properties.

The Master Plan supports these long-term interests by providing future-oriented strategies that seek to further these interests. Chapter Three establishes goals and objectives, and Chapter Four establishes future land use strategies, to secure these and other long-term interests.

Support for Day-To-Day Efforts

In addition to furthering long-term interests, the Master Plan also plays an important role in day-to-day planning and zoning efforts:

- Advisory Policies: The Plan is an official advisory policy statement of Cass County and the six Local Participating Municipalities, and it should be readily shared with existing and prospective landowners and developers. The Plan informs all of long term intentions regarding land use and encourages development proposals more closely integrated with the official policies of the Plan.
- Regulatory Programs: The Plan establishes a practical basis for the Local Participating Municipalities, and to a lesser degree the county, to revise, update, or otherwise prepare regulatory programs intended to ensure that the policies of the Plan are implemented.
- Review of Land Development Proposals: The Chapter Three goals and objectives and Chapter Four land use policies should be reviewed when consideration is given to future proposed rezoning requests, site plans, and related land use proposals, to further establish a record upon which the proposal can be evaluated.
- Public Services Improvements: The identification of a planned future land use pattern enables the county and the six Local Participating Municipalities to prioritize areas in need of current or future public services improvements and plan accordingly. Chapters Five and Six provide important guidance in this area.
- Intergovernmental Coordination: This Plan provides the basis for county officials and the officials of the Local Participating Municipalities to communicate effectively with nearby counties and communities, regarding both the impact of their planning and zoning actions and opportunities for mutual gain through coordinated land use and public services efforts.

- Factual Reference: This Plan includes a factual overview of trends and conditions in the county and the Local Participating Municipalities. This factual profile can educate county and local officials and residents and aid in the review of development proposals, encourage constructive discussion of planning issues and policies, and serve as a base line for future studies.

How the Plan Was Prepared

Cass County adopted a master plan in 2002. With the repeal of the County Planning Act in 2008, replaced by the Planning Enabling Act (Public Act 33 of 2008), and interest by Cass County and the Local Participating Municipalities in maintaining current policies regarding growth, development, and preservation, the county and the Local Participating Municipalities embarked on the development of a wholly new plan in the winter of 2012.

One of the first tasks undertaken was the holding of a "Future Vision" Town Meeting. The purpose of the Town Meeting was to gain insight into some of the thoughts of local residents about current aspects of the county and aspirations for the future.

"Future Vision" Town Meeting Results

Aspects of the county about which participants were most **proud**:

natural features	education
scenic/rural character	farming
recreation	diversity

Aspects of the county about which participants were most **sorry**:

loss of industry	lack of jobs
lack of internet access	roads
drugs	blight

Future visions of the county that participants found most important were:

natural resources	farms
education	jobs

A series of focused workshop meetings was also held with each of the Local Participating Municipalities at the onset of the project. The results of the workshops were the development of future land use concepts.

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The 2002 Master Plan was evaluated as to its continued applicability to the county today and its strengths and weaknesses, including within the context of input received during the planning process. A blueprint was developed to guide the development of the new master plan and officials county-wide were given an opportunity to comment on the conceptual changes suggested for inclusion in the new Plan.

The County Planning Commission then assembled a complete draft of the Plan and the draft was reviewed and revised based on, in part, input from each of the Local Participating Municipalities. Each of the planning commissions of the six Local Participating Municipalities subsequently held a public hearing on the revised draft and forwarded final comments to the County Planning Commission. The County Planning Commission further revised the draft plan and held a public hearing as well. The County Planning Commission subsequently finalized the Plan for adoption and following adoption by the County Planning Commission, each of the planning commissions of the Local Participating Municipalities similarly adopted the Plan.

Cass County Overview

Cass County is a vastly rural region in the southwest corner of Michigan along the Indiana state line. Comprised of 20 local municipalities, the county covers 508.5 square miles and had a 2010 population of 52,293.

Some of the county's most defining features include its abundant agriculture and other open spaces including woodlands and wetlands, its more than 165 lakes and the lakefront neighborhoods along many of their shorelines, its handful of small incorporated communities that offer a "town and country" feel, and the county's fundamental reliance on the greater regional area for employment and services including the St. Joseph/Benton Harbor area to the northwest, the Three Rivers and Kalamazoo areas to the east and northeast, and the South Bend and Elkhart areas to the south in Indiana. The county could be described as a lake and agriculturally-based bedroom community, with comparatively small scattered settlement areas offering more urban lifestyles and support services. The City of Dowagiac, the only city in the county and the largest of the five incorporated communities, had a 2010 population of nearly 6,000 and sits just eight miles northwest of the centrally located and county seat of the Village of Cassopolis.

Regional access to the Cass County area is afforded by Interstate 94, approximately nine miles to the north, and Interstate 80/90, approximately two miles to the south in Indiana. Access is further facilitated by US -131 and US 31 to the east and west respectively, and the presence of five state highways throughout the county that link the county to these freeways. U.S. 12 travels across the entire county in its southern third. The City of Dowagiac operates a small airport as well.

CASS COUNTY COMMUNITIES

City

Dowagiac

Villages

Cassopolis
Edwardsburg
Marcellus
Vandalia

Townships

Calvin
Howard
Jefferson
LaGrange
Marcellus
Mason
Milton
Newberg

Ontwa
Penn
Pokagon
Porter
Silver Creek
Volinia
Wayne

Aside from South Bend and Elkhart in Indiana, with populations of approximately 100,000 and 50,000 respectively and both within 10 miles of the county's southern border, the next closest major urban city of 100,000 or more population is Grand Rapids in Michigan, a community of more than 200,000 and a more than 1.5 hour drive for most county residents.

A detailed review of the county conditions, and those of the six Participating Local Municipalities can be found in the Appendices of this Plan.

Overview of Planning Policies

As is discussed in more detail in Chapter Four, the planned primary growth areas are Cassopolis, Dowagiac, and Edwardsburg. Secondary growth areas include Barron Lake, Marcellus, Union, Vandalia, Jones and Pokagon. Cassopolis, Dowagiac, and Edwardsburg are recommended to provide a wide variety of uses typically associated with small urban centers including residential uses of varying density, industry, and locally and regionally-oriented commercial growth. The balance of the designated growth areas are programmed for residential growth primarily, along with limited locally-oriented commercial services.

This Plan recommends the county's existing urbanized areas be the focus of growth.

Except for several planned commercially-oriented nodes scattered throughout the county and planned lakefront residential development along many of the county's lakes, the balance of the county is planned principally for agriculture, resource conservation, and rural residential development. Planned rural residential areas are principally limited to the Howard and Milton Township areas and portions of the southern third of Jefferson Township, with the balance and greatest portion of the county planned primarily for agriculture.

The principal policies embodied in this Master Plan for each of the Local Participating Municipalities can be summarized as follows:

Village of Edwardsburg: A compact pedestrian-friendly residential community, with a mixed-use M-62 corridor and a small US-12 business district.

Village of Vandalia: A variable density pedestrian-friendly residential community centered along a mixed-use M-60 corridor.

Pokagon Township: An agricultural community with principal urban growth limited to the Dowagiac area and extending along M-51, and in the Pokagon and Sumnerville areas.

Silver Creek Township: An agricultural/residential community with urban growth limited to the lake areas and segments of M-51 and M-62.

Volinia Township: An agricultural/residential community with small commercial nodes at several intersections.

Wayne Township: An agricultural community with principal urban growth areas in the Twin Lakes area and segments of M-51 and Marcellus Highway.

Chapter Two Planning Issues

Introduction

The development of goals, objectives and policies to address the future of the Cass County community requires a recognition of the primary planning issues present. A number of key planning issues are present today. These issues vary in scope and are clearly inter-related. The future quality of life and character of the county and its local communities will be impacted by the actions taken in response to these issues. This chapter summarizes important planning issues.

Planning Issues

Growth Management and Smart Growth

Cass County's character and quality of life will be impacted by the way its local communities manage growth. Successful growth management includes minimizing unnecessary loss or degradation of natural resources including farmland, woodlands and water resources; coordinating the amount and rate of new development with adequate public services including emergency services; accommodating growth and development in a manner that preserves the desired community character and its environmental integrity; encouraging economic development; and ensuring compatibility between adjacent land uses.

The "Smart Growth" movement surfaced more than 20 years ago in response to past growth practices including sprawl, unnecessary and excessive public infrastructure costs, and loss of open spaces and natural resources. The result has been a growing interest in charting more sustainable futures for our communities, both regionally and locally.

This Plan supports the ten principals of Smart Growth, recognizing that the relevance and application of each principal on the local level must be context-sensitive to the particular community according to the discretion of local officials.

Smart Growth Principals

Strengthen and direct development towards existing communities

Take advantage of compact development design

Create a range of housing opportunities and choices

Create walkable neighborhoods

Preserve open space, farmland, natural beauty, and critical environmental areas

Encourage community and stakeholder collaboration

Foster distinctive, attractive communities with a strong sense of place

Make development decisions predictable, fair, and cost-effective

Mix land uses

Provide a variety of transportation choices

Clearly, the application of smart growth principals in the villages of Edwardsburg and Vandalia will not be same as in the rural townships of Pokagon, Silver Creek, Volinia and Wayne where the level of public services and existing and planned urbanized areas are not as great. Still, interests in both farmland preservation and accommodating opportunities for growth open the door for context-sensitive application of smart growth philosophies.

Community Character / Sense of Place

Cass County is a community, as is each of its local municipalities. The role of a community's character in contributing to quality of life and creating a sense of place in which residents, families and business want to surround themselves is vital. A community's character is defined by the attributes and assets that make the community unique, and that establish a sense of place that is unlike most other places. These assets may include neighborhoods and business areas, natural resource systems, recreation and other public services, and the residents themselves and their heritage. Cass County is enriched by greater racial diversity than commonly found in predominantly rural Michigan, including the presence of a Native American population. The county's important role in the Underground Railroad, and the many museums in the county that celebrate this element of its heritage, help to shape local community character and sense of place.

Community character and sense of place can:

- Instill community pride and upkeep of properties
- Enhance property values
- Encourage persons and businesses to invest in the community
- Attract young knowledgeable workers and entrepreneurs
- Instill a sense of comfort among residents and families.

Community character and sense of place is more than just, for example, the rural assets of the townships of Pokagon, Silver Creek, Volinia and Wayne and the small town character of Vandalia and Edwardsburg.

Community character and sense of place can be enhanced and defined by:

- Attractive business centers with public spaces for gathering
- Business centers that attract people day and night through mixed-use activities
- Building architecture
- Streetscape images
- Ease of mobility throughout the community
- Close-by natural open spaces and recreation options.
- Social integration and equality
- Attractive neighborhoods

Efforts to enhance sense of place in Edwardsburg and Vandalia will have an urban flavor while those of the townships of Pokagon, Silver Creek, Volinia and Wayne will be open space and natural resources preservation based. Both must recognize the sense of place that each contributes to the other and the region as a whole.

The economic prosperity of a community is directly linked to community character and sense of place.

Community character and sense of place is a function of specific actions by both the public and private sectors, and it does not evolve by chance. The importance of these community features has never been so important as communities battle the recent economic downturn and find their individual roles and places in the "new economy."

Natural Resources and the Environment

One cannot speak of community character and sense of place in Cass County and its local communities without recognizing the presence of abundant natural resources and their benefits. These resources include, in part, its abundant farmland, forest lands, wetlands, streams, rivers, and lakes.

These resources provide critical benefits including shaping the character and sense of place in the area; providing vital environmental roles such as wildlife habitats, flood control, water purification, groundwater recharge, and air quality enhancement; and offer special recreation opportunities including hunting, hiking, boating and swimming.

Just as these resources make for desirable places to reside, their attractiveness also elevates their risk of degradation in response to growth and development pressures. This condition is perhaps best illustrated by the extensive lakefront development throughout the county including the townships of Silver Creek, Volinia and Wayne.

This condition significantly elevates the potential for environmental degradation of the water resource and shoreline resources, in addition to the recreation experiences enjoyed on the lakes and the values of nearby properties. The practice of "keyholing" to afford lake access to backlot owners can further exacerbate these conditions.

While local, state and federal regulations support preservation efforts, public education about the role and importance of the preservation of natural resources and available measures to the general public, is an important part of the effort.

Farmland and the Farming Industry

Farming has always been part of the Cass County landscape since its settlement. Today, farming occupies nearly 60% of the county. The industry is critical to the county's and state's well being:

- Farming produces the food and fiber our society relies on and those of other countries.
- Farming has long been recognized for contributing to local economic prosperity and is the second leading industry in Michigan.
- Farmland has been found to be one of the few land uses that typically produce more revenue than the cost to provide such land with services.

The market value of all county farm products sold in 2007 was \$101,549,000 (20th in state ranking), and ranked first among the state's 83 counties for acreage devoted to snap beans and second for the number and sales (\$) of hogs and pigs.

The importance of farmland preservation is illustrated by the considerable attention the matter has received by the state legislature including the authorization of the purchase of development rights (PDR) and the transfer of development rights (TDR).

While the farming industry is strong today, it none-the-less faces challenges.

- Competing land uses, particularly residential, consume important farmland.
- Residential encroachment leads to conflicts among responsible farm operators and non-farm residents.
- Transportation costs are increasing as processing and distribution centers are becoming more distance.
- Local regulations can undermine farmers' efforts to capitalize on market conditions including value-added opportunities such as farm markets, farm tours, corn mazes and wineries.

The accommodation of 1,000 new residents need not occupy more than 200 acres where public services are present, or may consume thousands of acres of farmland where controls are not in place.

A healthy farming industry will greatly encourage farmland preservation, and a healthy farming industry requires cooperative efforts on the local, county and state level. Facilitating the availability of locally produced farm products in schools, government and business centers, and close-to-home markets, is an example of the multi-faceted efforts necessary to encourage the continued growth of the Cass County farming industry.

Housing

Residential development will likely be the major land use change throughout Cass County in the coming ten to twenty years, and it will have the greatest long-term impact on natural resources, demand for public services, and overall community character.

Opportunities for rural housing abound throughout much of the county – in many cases at the cost of farmland and natural resources consumption and excessive infrastructure improvements. Dowagiac, the villages of Edwardsburg and Vandalia, and the county's other settlement area where potable water and sanitary sewer systems are in place are in the most advantageous position to offer alternative housing opportunities to meet the varying housing and lifestyle needs of current and future residents. The extent that new housing can be targeted for these enhanced public services areas, the less pressure will be exerted on the county's farmland and resource-based regions including the townships of Pokagon, Silver Creek, Volinia, and Wayne.

Cass County's identity is shaped by the diversity of its residents. Ensuring attractive, affordable, quality housing options must be a vital part of planning.

Ensuring varied options is just one piece of the housing puzzle. Housing must be conveniently located, be in-scale with surrounding conditions, be accessible to all income groups, emphasize walkability and open space areas, and be of sound construction and enhances community character and sense of place.

Commercial Services, Industry and Economic Development

The county's welfare, and that of its local communities, requires economic prosperity. The route to economic prosperity has changed dramatically in the past 20 years. Some of the changes between the "old economy" and the "new economy" include:

Old Economy	New Economy
Locating businesses where business costs were inexpensive.	Locating businesses where talent and innovation is abundant.
Attract businesses.	Attract educated people.
Economic development of government reliant.	Economic development relies on public, private and nonprofit partnerships.
Manufacturing based. (and fossil fuel dependant)	Diversity is critical as is communications technology and smart energy use.
People follow jobs.	Educated people choose where to live first.
Location is priority.	Quality of "place" and life takes priority.
Environmental integrity and resources secondary.	Environmental integrity, open spaces and recreation opportunities are a priority.

(Based on literature prepared by the Michigan State University Land Policy Institute)

This new economy requires an increased emphasis on:

- Enhancing the skill set of the labor force and attracting talented people.
- Ensuring local communities are desirable places in which to live and exhibit a "sense of place" that is both exciting and comforting.
- Fostering an environment that is friendly for existing businesses and start-up businesses.
- Regional initiatives that recognize and support interdependency between urban and more rural areas, the assets that each offers and the mutual gain available to all.

Cass County is largely an agricultural and bedroom community and relies heavily on the metropolitan areas of Elkhart, South Bend and other regional urban centers for employment. But the county does have its urban pockets that can enhance their own economic prosperity and the county and region as a whole. Workers and their families need places of residence and convenient consumer services. While some of the consumer services may be met during daily commutes, the county and its local communities have assets to be appropriately exploited to facilitate the infusion of economic development dollars.

In urban areas, this may be a mix of convenient office, retail, and specialty shops, evening entertainment opportunities, urban park spaces for special events that bring people together near commercial services, and sports facilities. In more rural areas, pastoral sightseeing with destination points, farm markets and tours, and outdoor recreation events can have positive economic impacts while making the area more attractive to potential regional workers. Also in rural areas, appropriately located commercial nodes can stimulate economic activity.

Cass County as a whole has assets that can be marketed in an effort to attract business and a skilled labor force including its abundant lakes and other natural resources, Southwestern Michigan College, and its overall "town and country" character.

While accommodating traditional industry in the county may be challenging in light of the opportunities offered by larger regional urban centers, light industry and emerging technologies do not typically demand the same level of public services, and may be more viable and advantageous. Ultimately however, providing workers with desirable communities in which to live, and work, is a critical piece of the economic prosperity puzzle.

Perhaps most important in ensuring Cass County's economic prosperity is the recognition that the county and its 20 local communities must maximize their collective assets and coordinate strategies to reap the benefits of the "new economy."

Transportation and Mobility

The provision for the safe, efficient and convenient movement of vehicles has far reaching implications.

- Economic development including the movement of goods and commuters and access to commercial centers.
- Access to neighborhoods and other property.
- Movement of and access for emergency vehicles.

In more recent times, the importance of mobility has taken on much broader implications beyond motorized travel. The mobility needs of all persons of all ages and physical capabilities have become recognized as a critical and necessary component of transportation planning. Accommodations for equally safe and convenient travel for pedestrians, bicyclists, and other non-motorized travelers has been directly linked to improved health and leisure time, improved opportunities for economic development, reduced reliance on the vehicle and fossil fuel consumption and reduced cost of living.

The importance of accommodating all travel modes is reflected by the “complete streets” movement that has become so prevalent across the state and which has been made a planning consideration under the Michigan Planning Enabling Act.

“Complete streets” provides for the accommodation of all intended users of the street, but this does not mean that all streets are equally appropriate for the same scope of “complete streets” measures.

“Complete Streets” measures are wide in scope and may include:

- | | |
|-----------------------------|-------------------------|
| • Sidewalks | • Lighting |
| • Traffic light timing | • Streetscape furniture |
| • Pedestrian cross walks | • Bicycle lanes |
| • Ramped corners | • Limited road widths |
| • Visual/audible signals | • Limited curb cuts |
| • Speed inhibiting measures | |

“Complete streets” in Edwardsburg and Vandalia, for example, are very different from “complete streets” in the county’s rural communities. Implementation of “complete streets” must be context-sensitive. It must also be recognized that transportation infrastructure is costly. The inclusion of complete streets measures will be slow and incremental, within the limitations of transportation funds and in association with broader road improvement projects. However, commitment by all parties is critical to enhance mobility throughout the county.

Community Facilities and Services

The quality of life one experiences is shaped of many variables and what is a priority variable for one may not be so for another. Cass County and its local communities have and will continue to have the potential to enhance the quality of life for local residents through the facilities and services they provide. These facilities and services may include open space and recreation, emergency services, special services to the elderly and disadvantaged individuals, regional and economic planning initiatives, court services, and more.

The extent to which services are provided, and can be enhanced, is dependent on local tax revenues and other income sources. The link between economic prosperity and the provision of public facilities and services is strong. But there are also strategies that are not so dependent on economic prosperity to enhance services:

- Minimize duplication of services and other unnecessary public services and facilities costs.
- Target facilities and services where it can impact the greatest number of recipients.
- Regularly monitor satisfaction levels among residents and target identified deficiencies, including emergency services and the scope of and access to recreation opportunities by all age, income and physical condition groups.

The improvement and expansion of sewer and water services should be incremental, orderly and based upon a current long range plan that recognizes county and local policies regarding land use and designated growth areas.

Regional Coordination

Cass County abuts the Indiana state line and is surrounded by seven other counties in Michigan and Indiana. It is part of the South Bend–Mishawaka Metropolitan Statistical Area and is heavily reliant on the greater Elkhart and South Bend regional areas. Cass County and each township, city and village in the county exists within a regional network of communities, none of which are islands unto themselves. The county and its local communities can greatly benefit by cooperatively pursuing common goals in such areas as:

- land use planning
- public services
- natural resources preservation
- open space corridor preservation

- regional trail systems
- economic development initiatives
- farm industry enhancement

It should be recognized that some if not many local communities cannot offer important facilities and services on their own, and must rely on inter-governmental coordination and regional agencies to assist in realizing the community's vision. Land use and public services planning should seek to establish a common vision and foster compatibility and efficiency across local and county borders.

Social Equality

There is no universally recognized meaning of “social equality.” Within the context of this Master Plan, social equality refers to the condition whereby all county residents have an equal opportunity to pursue goals that are important to them. These goals are often associated with safety, freedom of speech, education, employment, income, housing, health care, personal possessions, and more.

Social equality is very important. Not only is it viewed as a philosophical foundation upon which the United States was founded (Declaration of Independence – “all men are created equal”), but more and more research has uncovered links between heightened social equality and the well being of individuals and the communities in which they reside.

This “well being” is reflected in:

- Lower crime rates.
- Lower imprisonment rates.
- Less reliance on illegal drugs.
- Increased spending and economic prosperity.
- Decreased mental illness.
- Improved performance in educational pursuits.
- Decreased obesity rates.
- Improved health and life spans.

Enhancing social equality requires actions by many and on many different levels including individuals, communities, states and federal agencies. Cass County, and its 20 municipalities, have direct contact with local residents as part of the services and facilities they provide and in doing so, have the opportunity to contribute to enhancing the well being of all.

Social and other public services, and land use policies and decisions, have social equality implications.

Chapter Three

GOALS and OBJECTIVES

Introduction

The primary intent of this Plan is to establish a basis for managing growth, with particular focus on land use, public services and community character. An important element of this effort is the establishment of a set of goals and objectives to not only mold the growth management strategies but to also assist in day-to-day and long-term planning efforts. This chapter presents the Master Plan's goals and objectives.

The goals are statements that express the long range desires of Cass County and the Local Participating Municipalities. Each goal has accompanying objectives that are general initiatives aimed at attaining the specified goal. The goals and objectives generally correspond to the planning issues discussed in Chapter Two.

The objectives listed on the following pages should not be interpreted as limitations on efforts to attain the goals. The following objectives do not preclude the pursuit of other objectives that are determined to be beneficial. In addition, the objectives are not time specific -- some objectives may be acted upon within a shorter time frame than others.

The first portion of this chapter presents goal and objective statements specific to Cass County as a whole. The second portion of the chapter presents goal and objective statements specific to the Local Participating Municipalities.

The Importance of Goals and Objectives

- **A Vision:** The goals and objectives provide current and future residents with an overview of the intended future character of the community.
- **Shape Initiatives:** The goals and objectives guide the planning commissions of Cass County and the Local Participating Municipalities in developing initiatives and making recommendations to the county and local legislative bodies on how the Plan can be implemented.
- **Shape Policies:** The goals and objectives identify and outline the basic parameters that should be used in guiding land use and public services policies.
- **Evaluate Master Plans and Zoning Ordinances:** The goals and objectives serve as references upon which the Cass County Planning Commission can evaluate local master plans and zoning ordinances.
- **Evaluate Development Proposals:** The goals and objectives serve as references upon which future rezoning and land development proposals can be evaluated.
- **Encourage Coordination:** The goals and objectives serve as opportunities for local communities and the county to coordinate planning efforts.

CASS COUNTY Goals and Objectives

Cass County Growth Management	
GOAL: <i>Encourage the management of county growth according to the principals of Smart Growth, both regionally and within the context of each local community.</i>	
OBJECTIVES	
1	Encourage the mixing of land uses in more suburbanized and urbanized settings including residential, commercial, office and public/quasi-public uses.
2	Encourage growth in and in close proximity to existing settlement areas where public facilities and services are most capable of accommodating growth and where the enhancement of services is most cost-effective.
3	Encourage compact development in designated growth/settlement areas.
4	Encourage a range of housing opportunities that address the varied housing needs of county residents.
5	Encourage housing that incorporates ease of mobility throughout and between neighborhoods for pedestrians and other non-motorized travelers, and throughout and between business and other activity centers.
6	Encourage the preservation of the extent and integrity of the county's natural resources.
7	Develop a Cass County "identity" that distinguishes it from the regional area and which recognizes and builds on the identities and assets of its local communities.
8	Encourage the inclusion of alternative modes of travel as county road segments are incrementally improved and as financial resources permit.
9	Assist with local and regional efforts to enhance economic stability, consistent with the future land use policies of the county and those of local Master Plans.
10	Work with the Pokagon Band of Potawatomi Indians to develop mutually beneficial development policies and the coordination of development aspirations with local and county planning policies.
11	Encourage local planning/zoning programs that treat all applicants in a fair, consistent and predictable manner.
12	Provide substantive opportunities for input by all interested parties on growth and development decisions.
13	Review proposed local ordinance and master plan provisions within the context of smart growth principals and the county's master plan goals, objectives and policies.
14	Serve as a resource for local communities interested in understanding and practicing smart growth principles.

Cass County Community Character	
GOAL: <i>Establish and maintain a county-wide character that is unique to Cass County and which reflects an attractive and inviting environment in which persons and families want to live, where businesses want to locate, and where a comforting sense of place prevails, and which is supported by the unique character of its local communities.</i>	
OBJECTIVES	
1	Design and maintain county grounds and buildings in a manner that reflects positively on both the county and the local community.
2	Encourage the enhancement of visual impacts of development through proper building scale, landscaping and screening, streetscape improvements, opportunities for public gathering, and other development features.
3	Encourage road and access drives in business areas to present an inviting atmosphere through landscaping, orderly and non-intrusive signage, and similar development features.
4	Encourage forms of development that preserve natural open spaces as part of the development plan.
5	Preserve historically significant structures and bring attention to these community assets.
6	Encourage structurally sound buildings and the rehabilitation or removal of blighted structures and areas.
7	Provide guidance to local communities on measures to combat blight and enhance community character.

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Cass County Natural Resources, Open Spaces and the Environment	
	GOAL: <i>Preserve and enhance the extent and integrity of natural resources including resource corridors within and across community borders.</i>
OBJECTIVES	
1	Document and periodically update resource inventory data and refer to the data when making county planning and development decisions.
2	Preserve natural resource areas as part of county-initiated development plans through careful and innovative site planning, low-impact development practices, and green infrastructure.
3	Evaluate local community master plans and rezoning proposals within the context of their impact upon on-site natural resources including water resources, wetlands, woodlands, and other important open spaces.
4	Evaluate local community master plans and rezoning proposals within the context of their impact upon natural resource corridors that cross parcel and community borders.
5	Evaluate development proposals within the context of on-site resource corridors and neighboring parcels.
6	Encourage the preservation of a county-wide open space network, within which development is restricted and recreation opportunities prevail.
7	Encourage public access to resource areas in a manner that ensures continued integrity of the resources.
8	Discourage over-use of natural resource systems that lead to their degradation including sea wall construction and unrestricted "keyholing" around lakes.
9	Assist with communication and cooperative efforts among public and private organizations with special interests in the preservation of sensitive environmental resources including water resource protection.
10	Assist in the education of local residents and business owners regarding critical steps available to protect the environmental and recreational value of local lakes and streams.
11	Provide educational programs about the importance of ensuring a balance between opportunities for lakefront and other waterfront living and the long term protection of the aesthetic, recreational and environmental integrity of such water resources.
12	Provide educational programs about the importance of preserving natural resource systems on the local level and alternative strategies to implement preservation.
13	Assist in the education of local residents and business owners about critical steps available to protect potable ground water resources.

Cass County Farming and Farmland Resources	
	GOAL: <i>Encourage the preservation of farmland resources and the long term viability of local farm industries, and the critical role farming plays within the Cass County fabric.</i>
OBJECTIVES	
1	Evaluate local community master plans and rezoning proposals within the context of their impact upon the farming industry.
2	Identify areas supportive of long-term farming and encourage farmland preservation in these areas.
3	Discourage land division patterns that unnecessarily consume productive farmland or otherwise undermine long term farming viability.
4	Discourage residential encroachment into designated agricultural areas.
5	Encourage the use of "clustering" in rural areas where farmland is to be converted to multiple residential lots such as in the case of subdivisions.
6	Encourage buffer areas as part of residential developments that mitigate impacts of adjacent farm operations.
7	Evaluate public services decisions on their impact on local farming efforts and farmland preservation interests.
8	Support PA 116 farmland and open space preservation agreements.
9	Periodically explore the viability of funding a purchase of development rights program.
10	Discourage the extension of utility services, such as public sewer or water, into designated agricultural areas except where threatening health conditions require otherwise.
11	Encourage and assist with local, county and state programs aimed at supporting the local farming industry and farmland preservation.

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12	Encourage the lessening of local obstacles to farming and “value-added” income sources, such as agri-tourism, farm markets, corn mazes, and other activities that do not unreasonably impact the surrounding area.
13	Serve as a resource for local communities interested in effectively preserving farmland resources through education and training materials, technical assistance, and other support initiatives.

Cass County Housing	
1	GOAL: <i>Encourage housing opportunities that address the needs of all age, social and economic groups and lifestyle preferences, and which encourage environments in which persons and families can grow and flourish and farmland and natural resource systems are preserved.</i>
OBJECTIVES	
1	Encourage housing options that address all social and economic groups, and a housing stock that that is of appropriate design and scale to fit within the local community fabric.
2	Encourage the phasing of high density development so as not to place sudden and excess demands on local facilities and services or otherwise undermine local community character, including in the case of manufactured housing communities, multiple family developments, and other high-density living arrangements.
3	In the more urbanized areas of the county, encourage attractive compact housing that supports a sense of place, non-motorized mobility, and proximity to services including traditional neighborhood design (TND).
4	In the more outlying areas of the county, encourage housing that preserves the county’s rural assets while not unnecessarily consuming agricultural resources and other open spaces.
5	Direct residential development to existing settlement areas and away from agricultural areas.
6	Encourage housing opportunities that meet the particular needs of elderly residents including assisted living facilities, nursing home, senior apartments and retirement communities.
7	Encourage restrictive development densities that recognize and respect important on-site natural resources and appropriate preservation and buffering measures.
8	Encourage innovative residential development that incorporates in the site planning process the preservation of natural resource systems and compatibility with surrounding land use conditions.
9	Encourage the protection of the character and value of existing established neighborhoods through design measures incorporated into new neighboring development.
10	Encourage local efforts to eradicate blight and residential properties in disrepair.

Cass County Commercial Services, Industry and Economic Stability	
	GOAL: <i>Promote economic stability and enhancement through an appropriate mix of land uses and the development of employment opportunities, while balancing growth and development with the preservation of the county’s natural resources, environmental systems, and quality of life.</i>
OBJECTIVES	
1	Encourage the revitalization, rehabilitation and development of village and city centers, and other urbanized settlement areas, and encourage their role as the county’s primary commerce centers.
2	Encourage commercial and industrial growth in concentrated areas rather than as strip corridors along primary thoroughfares, and in areas where public facilities and services are most supportive or otherwise most cost-effective to improve.
3	Encourage commercial, industrial and other non-residential development in character with surrounding uses and the local community as a whole, through such features as building size, height and architecture; setbacks; signage; and landscaping/screening.
4	Encourage business districts that are of a pleasant and inviting character, where pedestrians are free to move about and gather safely, and where commerce and social activities generate a vibrant atmosphere.
5	Develop marketing programs to encourage business attraction and growth, and which bring attention to the county’s assets including its lakes and other natural resources and Southwestern Michigan College.
6	Coordinate with Southwestern Michigan College regarding marketing efforts that will bring beneficial growth and development to the county.

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7	Support economic development through beneficial county services, and evaluate county services for their impact in fostering economic development.
8	Support public and private training and educational training programs to enhance local employment.
9	Provide assistance to persons seeking guidance in establishing and growing a business.
10	Work with the Pokagon Band of Potawatomi Indians to coordinate economic development efforts within the context of the county's regional land use policies.
11	Where legally permissible, ensure that the public and private costs of development are borne by those directly benefitting from the development.
12	Discourage the encroachment of commercial and industrial uses into residentially planned areas except under limited and controlled circumstances such as in the case of home occupations and planned mixed-use areas.
13	Encourage safe and efficient access and circulation in business areas including minimizing parking lot/service drives and conflicting turning patterns and enhancing non-motorized travel.

	Cass County Transportation and Mobility
	GOAL: <i>Maintain and enhance a transportation and circulation system that responds to the county's predominant rural character the county's regional and local needs, with emphasis on convenient, safe and efficient movement for all modes of travel including vehicular, pedestrian, and other non-motorized travel.</i>
	OBJECTIVES
1	Maintain a current inventory of road and traffic data including road conditions, traffic counts, and accident data.
2	Regularly monitor and evaluate traffic movement and safety through the county.
3	Prioritize maintenance and improvement projects according to available funds, traffic volumes, safety, planned growth areas, and immediate threats to public safety.
4	Discourage road improvement projects that increase the number of vehicular lanes except where no other practical options are available to mitigate an identified traffic flow issue.
5	Coordinate road construction and improvement projects with those of the Michigan Department of Transportation and local city/village efforts.
6	Encourage communication and coordination between county and local planning, economic development, and road/transportation agencies, to address transportation improvements in a coordinated and unified manner.
7	Regularly explore and implement transportation improvements aimed at increasing travel efficiency to and from I-94, and to the Elkhart and South Bend employment centers including access to the Indiana Toll Road.
8	Work with passenger rail service providers (Amtrak) to ensure service through the county with stops in Dowagiac and other urban centers.
9	Encourage the further development, expansion, and coordination of public transportation systems and long term support for public transportation options.
10	Encourage the correlation of higher traffic generating uses with enhanced road infrastructure.
11	Encourage local access management measures.
12	Evaluate roadside development according to appropriate access management measures.
13	Develop an official "complete streets" policy that will guide the incorporation of complete streets measures into road improvement projects in a context-sensitive manner.
14	Encourage development plans to incorporate safe and efficient opportunities for non-motorized travel through the development site.
15	Work with the Michigan Department of Transportation to incorporate opportunities for non-motorized travel within state highway right-of-ways.
16	Evaluate development plans according to the manner in which vehicular and non-motorized travel is coordinated with adjacent and nearby facilities, and the fostering of parcel-to-parcel and regional travel.
17	With the consultation of local communities, undertake a non-motorized circulation plan that identifies a long range strategy for providing safe and convenient non-motorized travel through the county and which can be implemented as financial resources permit.
18	Encourage the local regulation of billboards to reduce visual clutter, enhance traffic safety, and preserve the county's rural and agricultural character.

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Cass County Community Facilities and Services	
GOAL: <i>Provide quality and cost effective community facilities and services in recognition of the county's predominantly rural character and dispersed settlement areas, including recreation, social and other services and programming for all population groups.</i>	
OBJECTIVES	
1	Coordinate the location and delivery of public facilities and services in the Dowagiac and Cassopolis areas, and other primary population centers, to increase efficiency and effectiveness of services.
2	Inform residents of additional services and assistance available in the county through other public and private entities including social, transportation and medical services.
3	Work with regional entities in maintaining a current plan for the reduction in and disposal of solid waste.
4	Develop and regularly evaluate county solid waste practices to reduce reliance on landfill disposal.
5	Maintain and enhance the county's recreation facilities for both their recreational value and their potential economic development impact.
6	Develop and maintain a five-year MDNR-approved recreation plan, responsive to the needs of county residents, to ensure eligibility to compete for recreation grant dollars.
7	Develop and regularly update a county capital improvement program (CIP) to prioritize annual projects, coordinate efforts and expenditures between county departments, the state, and local communities.
8	Evaluate public and private sector development projects to ensure appropriate storm water management practices and the application of "green infrastructure."
9	Update and maintain a county-wide plan for improvements to public sewer and water systems, coordinated with planned growth areas.
10	Continually monitor local attitudes about county facilities and services and explore financially feasible options to enhance services where deficiencies may be identified.
11	Maintain communication and coordination between county and local municipal departments to minimize unnecessary duplication of services.

Cass County Regional Coordination	
GOAL: <i>Encourage regional communication and coordination among local communities, counties, and other entities in addressing shared interests.</i>	
OBJECTIVES	
1	Establish meaningful communication programs with neighboring counties and regional planning agencies such as the Southwest Michigan Regional Planning Commission.
2	Encourage communication networks between local communities.
3	Encourage communication networks between local communities and the county.
4	Evaluate local master plans within the context of neighboring land use policies and those of the county.
5	Continue to explore regional initiatives, including with neighboring counties, to explore cost-effective options for the delivery of public services.
6	Coordinate with regional entities in the area of economic development, natural resources protection, and transportation.

LOCAL PARTICIPATING MUNICIPALITIES

Goals and Objectives

Local Participating Municipalities Growth Management		Pokagon	Silver Creek	Volinia	Wayne	Edwardsburg	Vandalia
GOAL: <i>Manage growth in a manner that balances development, preservation of natural resources and community character, and cost-effective public services, and fosters an economically and socially sound and attractive community.</i>		X	X	X	X	X	X
OBJECTIVES							
1	Identify an appropriate mix of land uses and their most appropriate locations.	X	X	X	X	X	X
2	Manage growth in a manner that supports the concepts of Smart Growth, recognizing that not all concepts are equally applicable and they must be applied in a context-sensitive manner.	X	X	X	X	X	X
3	Establish a strong correlation between more intensive land uses and enhanced public facilities and services.	X	X	X	X	X	X
4	Provide opportunities for the mixing of residential, commercial and public/quasi-public uses in settlement areas.	X	X	X	X	X	X
5	Encourage the use of lands and natural resources according to their character and adaptability.	X	X	X	X	X	X
6	Encourage compact development in designated growth areas, particularly in existing more urbanized settlement areas.	X	X	X	X	X	X
7	Encourage land use and development patterns that facilitate non-motorized travel within and between neighborhoods, commercial centers, and other community activity centers such as parks.	X	X	X	X	X	X
8	Preserve natural resources including woodlands, wetlands, stream corridors, and other important natural resource areas.	X	X	X	X	X	X
9	Encourage economic development consistent with the future land use policies of the Master Plan.	X	X	X	X	X	X
10	Develop and maintain a unique identity and character, and one that encourages a sense of place and a desirable place to be.	X	X	X	X	X	X
11	Ensure adequate buffering, separation differences or other mitigating measures between incompatible land uses.	X	X	X	X	X	X
12	Develop a planning and zoning program that enables all parties to understand how persons' development aspirations compare to adopted policies and regulations, and that encourages consistent, fair and predictable treatment of applicants.	X	X	X	X	X	X
13	Provide substantive opportunities for input by all interested parties on growth and development decisions, and which permits opportunities to examine potential conflict issues and options to mitigate the conflicts.	X	X	X	X	X	X
14	Carefully review development proposals to ensure compatibility with the Master Plan's policies, goals and objectives.	X	X	X	X	X	X
15	Develop and update tools to implement the Master Plan policies, goals and objectives including zoning provisions.	X	X	X	X	X	X

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Local Participating Municipalities Community Character		Pokagon	Silver Creek.	Volinia	Wayne	Edwardsburg	Vandalia
GOAL: <i>Establish and maintain a community character that creates a unique, attractive and inviting environment in which persons and families want to live, where businesses want to locate, and where a comforting sense of place prevails.</i>		X	X	X	X	X	X
OBJECTIVES							
1	Encourage development in the villages to be designed in scale with surrounding conditions and the desired small-town character.	X	X	X	X	X	X
2	Encourage development in the townships to be designed in scale with surrounding conditions and the prevailing rural character.	X	X	X	X	X	X
3	Enhance the visual impacts of development through proper building scale, landscaping and screening, streetscape improvements, opportunities for public gathering, and other development features.	X	X	X	X	X	X
4	Encourage road and access drives in business areas to present an inviting atmosphere through landscaping, orderly and non-intrusive signage, and similar development features.	X	X	X	X	X	X
5	Encourage forms of development that preserve natural open spaces as part of the development plan.	X	X	X	X	X	X
6	Preserve historically significant structures and natural resource areas, and bring attention to these community assets.	X	X	X	X	X	X
7	Encourage a structurally sound building stock and the rehabilitation or removal of blighted structures and yard areas.	X	X	X	X	X	X

Local Participating Municipalities Natural Resources, Open Spaces and the Environment		Pokagon	Silver Creek.	Volinia	Wayne	Edwardsburg	Vandalia
GOAL: <i>Preserve and enhance the integrity of natural resources such as lakes, streams, wetlands, woodlands, and other open spaces, and including resource corridors within and across community borders.</i>		X	X	X	X	X	X
OBJECTIVES							
1	Document and periodically update resource inventory data and refer to the data when making planning and development decisions.	X	X	X	X	X	X
2	Preserve natural resource areas as part of development plans, including the use of clustering and buffer areas.	X	X	X	X	X	X
3	Evaluate development proposals within the context of their impact upon water resources, land resources, ground water, and the atmosphere.	X	X	X	X	X	X
4	Evaluate development proposals within the context of on-site resource corridors and neighboring parcels.	X	X	X	X	X	X
5	Consider the nature and extent of sensitive environmental resources when determining acceptable development densities and intensities.	X	X	X	X	X	X
6	Ensure a balance between opportunities for lakefront and other waterfront living with interests in the long term protection of the aesthetic, recreational and environmental integrity of the water resource.	X	X	X	X	X	X
7	Discourage over-use of natural resource systems that lead to their degradation, including unrestricted "keyholing" around lakes.	X	X	X	X	X	X

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8	Encourage public access to resource areas in a manner that ensures continued integrity of the resources.	X	X	X	X	X	X
9	Encourage an open space network based upon, in part, ecosystems defined by drainage corridors, wetlands and woodlands.	X	X	X	X	X	X
10	Establish wellhead protection areas in association with municipal water systems to protect groundwater resources from contamination.	X	X	X	X	X	X
11	Encourage the inclusion of low impact development principles as part of land development practices including reliance on green infrastructure.	X	X	X	X	X	X
12	Ensure that increased runoff that may occur from development is managed so as not to undermine the environmental integrity of on-site and off-site lakes, streams, wetlands and potable water sources.	X	X	X	X	X	X
13	Require storm water management practices that emphasize "green infrastructure" and compliance with county, state and federal requirements.	X	X	X	X	X	X
14	Discourage the enhancement of public services in areas planned for resource conservation.	X	X	X	X	X	X
15	Maintain communication and cooperative efforts with public and private organizations with special interests in the preservation of sensitive environmental resources including water resource protection.	X	X	X	X	X	X
16	Assist in the education of local residents and business owners regarding critical steps available to protect the environmental and recreational value of local lakes and streams.	X	X	X	X	X	X
17	Assist in the education of local residents and business owners about critical steps available to protect potable ground water resources.	X	X	X	X	X	X

Local Participating Municipalities Farming and Farmland Resources		Pokagon	Silver Creek.	Volinia	Wayne	Edwardsburg	Vandalia
	GOAL: Encourage the preservation of farmland resources and the long term viability of local farm industries.	X	X	X	X	X	X
	OBJECTIVES						
1	Identify areas supportive of long-term farming and make such areas available for agricultural uses.	X	X	X	X		X
2	Discourage land division patterns that result in the wasteful consumption of farmland resources or otherwise undermine long term farming viability.	X	X	X	X		X
3	Discourage residential encroachment into designated agricultural areas, and guide such encroachment to less productive land.	X	X	X	X		
4	Establish significant limitations on the extent of residential encroachment into designated agricultural areas, and guide such encroachment to less productive land.	X		X	X		
5	Encourage buffer areas as part of new residential developments that mitigate impacts of adjacent farm operations.	X	X	X	X		
6	Evaluate land use and public services decisions on, in part, impacts on local farming efforts and farmland preservation interests.	X	X	X	X		
7	Support PA 116 farmland and open space preservation agreements.	X	X	X	X		X
8	Periodically explore the viability of the Transfer of Development Rights.	X	X	X	X		X
9	Support voluntary Purchase of Development Rights administered at the county or state level.	X	X	X	X	X	X
10	Encourage the use of "clustering" in rural areas where farmland is to be converted to multiple residential lots such as in the case of subdivisions.	X	X	X	X		X
11	Discourage the extension of utility services, such as sewer or water, into designated agricultural areas except where threatening health conditions require otherwise.	X	X	X	X		

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12	Minimize obstacles that unnecessarily undermine farm operations and “value-added” income sources, such as agri-tourism, farm markets, corn mazes, and other activities that do not unreasonably impact the surrounding area.	X	X	X	X		X
13	Encourage and assist with local, county and state programs aimed at supporting the local farming industry and farmland preservation.	X	X	X	X		X

	Local Participating Municipalities Housing	Pokagon	Silver Creek	Volinia	Wayne	Edwardsburg	Vandalia
1	GOAL: <i>Facilitate healthy residential environments in which persons and families can grow and flourish, and that address local lifestyle needs within the context of available public services and facilities, natural resource systems, and community aspirations.</i>	X	X	X	X	X	X
	OBJECTIVES						
1	Ensure the continued dominance of low-density single family housing as the primary housing option, consistent with the local rural character, while also providing opportunities for variable single family housing densities.	X	X	X	X		
2	While ensuring the continued dominance of single family housing as the primary housing option, provide limited opportunities for higher density lifestyles in designated areas.	X	X	X	X		
3	Ensure the continued dominance of medium density single family housing, and minimize further expansion of alternative housing options except as may be provided above commercial storefronts.					X	
4	Ensure the continued dominance of medium density single family housing, while providing opportunities for apartments, townhouses, and similar alternative housing options as local needs may suggest.						X
5	Identify areas where higher density lifestyles can be most appropriately accommodated, considering such factors as existing land use patterns, public services and facilities, and road infrastructure.	X	X	X	X	X	X
6	Encourage housing options that address all social and economic groups, and a housing stock that is of appropriate design and scale to fit within the community fabric.	X	X	X	X	X	X
7	Encourage innovative residential development that incorporates in the site planning process the preservation of natural resource systems and compatibility with surrounding land use conditions.	X	X	X	X	X	X
8	Protect the character and value of existing established neighborhoods through design measures incorporated into new neighboring development such as special setbacks, buffering, and density considerations.	X	X	X	X	X	X
9	Provide opportunities for housing that meet the particular needs of elderly residents including assisted living facilities, nursing homes, senior apartments and retirement communities.	X	X	X	X	X	X
10	Encourage the rehabilitation of blighted homes and residential properties.	X	X	X	X	X	X
11	Encourage “traditional neighborhood design” (TND) in association with village and similar higher density areas, including grid street patterns, sidewalks, and street trees.	X	X	X	X	X	X

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Local Participating Municipalities Commercial Services, Industry and Economic Stability		Pokagon	Silver Creek.	Volinia	Wayne	Edwardsburg	Vandalia
	GOAL: <i>Enhance economic stability through a mix of commercial and industrial uses that is appropriate for the character of the community.</i>	X	X	X	X	X	X
	OBJECTIVES						
1	Limit industrial growth, in recognition of the more appropriate locations elsewhere in regional urban centers where public facilities and services and existing land use patterns are most supportive.	X	X	X	X	X	X
2	Consider available commercial services in nearby communities and regional urban centers in determining the appropriate extent and character of new local commercial growth.	X	X	X	X	X	X
3	Provide opportunities for a mix of commercial uses that predominantly target local day-to-day consumer needs and the highway traveler, in convenient and clustered locations.	X	X	X	X	X	X
4	Guide commercial and industrial development to clustered locations according to such factors as public services/facilities, road infrastructure, access and visibility, and the presence of similar development patterns.	X	X	X	X	X	X
5	Discourage the encroachment of commercial and industrial uses into residentially planned areas except under limited and controlled circumstances such as in the case of home occupations and planned mixed-use areas.	X	X	X	X	X	X
6	Encourage unified and consolidated business centers rather than the creation and incremental expansion of strip commercial corridors.	X	X	X	X	X	X
7	Encourage commercial, industrial and other non-residential development in character with surrounding uses and the community as a whole, through such features as building size, height and architecture; setbacks; signage; and landscaping/screening.	X	X	X	X	X	X
8	Encourage safe and efficient access and circulation including minimizing parking lot/service drives and conflicting turning patterns, and enhancing non-motorized travel to and through business centers.	X	X	X	X	X	X
9	Discourage business districts defined as parking corridors through innovative site planning.	X	X	X	X	X	X
10	Encourage business districts that are visually and spatially inviting as a place to gather, including streetscape improvements, public event spaces, and outdoor eating.	X	X	X	X	X	X
11	Market the assets of the community as a means of attracting desirable development.	X	X	X	X	X	X
12	Support and coordinate economic development efforts with the county and other regional entities.	X	X	X	X	X	X

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Local Participating Municipalities Transportation and Mobility		Pokagon	Silver Creek.	Volinia	Wayne	Edwardsbur	Vandalia
	GOAL: <i>Maintain and enhance a transportation and mobility network that responds to the particular character of the community and its local needs, with emphasis on safe and efficient movement for all modes of travel including vehicular, pedestrian, and other non-motorized options.</i>	X	X	X	X	X	X
	OBJECTIVES						
1	Implement access management measures designed to minimize congestion and hazards along road corridors including intersections.	X	X	X	X	X	X
2	Correlate the location of higher traffic generating uses with enhanced road infrastructure and access management measures.	X	X	X	X	X	X
3	Undertake a non-motorized circulation plan that identifies a long range strategy for providing safe and convenient non-motorized travel, and which can be implemented as financial resources permit.	X	X	X	X	X	X
4	Require development plans to incorporate safe and efficient opportunities for non-motorized travel through the development site.	X	X	X	X	X	X
5	Evaluate development plans according to the manner in which vehicular and non-motorized travel is coordinated with adjacent and nearby facilities, and the fostering of parcel-to-parcel and regional travel.	X	X	X	X	X	X
6	Work with the Cass County Road Commission to maximize road improvement and maintenance efforts, targeting road segments of greatest need in coordination with the planned future land use pattern.	X	X	X	X	X	X
7	Adopt context-sensitive complete streets standards.					X	X
8	Work with the Cass County Road Commission and Michigan Department of Transportation to implement context-sensitive "complete streets" measures as financial resources permit.	X	X	X	X	X	X

Local Participating Municipalities Community Facilities and Services		Pokagon	Silver Creek.	Volinia	Wayne	Edwardsbur	Vandalia
	GOAL: <i>Provide community services and facilities in a manner consistent with the character of the community, the current and anticipated needs of residents, and the existing and planned land use pattern.</i>	X	X	X	X	X	X
	OBJECTIVES						
1	Evaluate any consideration of the introduction or expansion of public sewer or water service according to, in part, the planned future land use pattern for the community and an analysis of all available options including cooperative agreements with neighboring communities and regional entities.	X	X	X	X	X	X
2	Ensure adequate storm water management as part of site development efforts to minimize demands on off-site public storm water systems.	X	X	X	X	X	X
3	Evaluate development plans according to, in part, measures to protect public health, safety and welfare in association with flood potential.	X	X	X	X	X	X
4	Require fire protection infrastructure for development that is of such size and/or intensity that the infrastructure is deemed critical for public health, safety and welfare.	X	X	X	X	X	X
5	Continually monitor local attitudes about police protection, fire protection, and emergency services, and explore financially feasible options to enhance services where deficiencies may be identified.	X	X	X	X	X	X

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6	Continually monitor local attitudes about the availability and quality of recreation opportunities and services.	X	X	X	X	X	X
7	Should sufficient public sentiment warrant, develop and maintain an MDNR-approved recreation plan that provides eligibility to compete for state and federal recreation grant dollars.	X	X	X	X	X	X
8	Encourage recreation facilities in close proximity to population areas, and as part of residential development projects, to provide close-to-home opportunities.	X	X	X	X	X	X
9	Coordinate efforts with local communities to provide recreation opportunities and programs in a manner that is cost-effective and responsive to local needs.	X	X	X	X	X	X

See also "Natural Resources, Open Spaces and the Environment" for additional objectives having bearing on recreation.

	Local Participating Municipalities Regional Coordination	Pokagon	Silver Creek	Volinia	Wayne	Edwardsburg	Vandalia
	<u>GOAL:</u> <i>Make land use, preservation and public services decisions in a manner that recognizes the community's position within the larger region and strives to encourage compatibility across community borders.</i>	X	X	X	X	X	X
	OBJECTIVES						
1	Maintain a meaningful communication program with neighboring communities to discuss local and area-wide public facilities and services needs, land use conditions and trends, and planning issues.	X	X	X	X	X	X
2	Work with neighboring communities to explore opportunities to address shared concerns and aspirations in a unified and cost-effective manner.	X	X	X	X	X	X
3	Enter into shared service agreements with neighboring communities where determined mutually beneficial.	X	X	X	X	X	X
4	Strive to identify a planned future land use pattern that recognizes neighboring land use policies and encourages compatibility.	X	X	X	X	X	X
5	Encourage neighboring communities to comment on local projects of regional impact.	X	X	X	X	X	X

Chapter Four

FUTURE LAND USE PLANS

Introduction

This chapter presents the Future Land Use Plan (FLUP) for Cass County and the six Local Participating Municipalities – the villages of Edwardsburg and Vandalia and the townships of Pokagon, Silver Creek, Volinia and Wayne. Each of the seven FLUPs consists of policies regarding future land use and how growth, development and preservation can best be accommodated. The foundation on which each of the FLUPs is rooted is the goals and objectives in Chapter Three and an analysis of natural and cultural features such as roads and other public infrastructure; existing land use patterns; and soils, wetlands and other environmental conditions. The FLUPs present broad-based policies regarding the dominant land use(s) to be accommodated in each.

CASS COUNTY Future Land Use Plan

Urban Growth Areas

The Cass County FLUP directs growth and development of an urban and suburban character to the county's existing principal settlement areas. The Urban Growth Areas are considered most appropriate for the accommodation of the county's urban and suburban growth in recognition of:

- The heightened level of public services and infrastructure including emergency services.
- The cost-effectiveness of maximizing existing public services and infrastructure.
- The presence of existing suburban/urban development patterns including the principal population centers of the county.
- Improved access including intersecting state highways.

The seven areas classified as "Urban Growth Areas" are further classified as primary and secondary growth areas.

Primary Growth Areas: Primary Growth Areas include the areas of **Cassopolis, Dowagiac and Edwardsburg**. These locations are intended to be the principal growth areas of the county, providing a full range of housing options and densities. The expansion of commercial services in the county is to be focused in these locations, with priority being the redevelopment and infill development of existing commercial centers. Commercial expansion beyond the existing business centers should be limited and generally to provide convenience services to the immediately surrounding neighborhoods. The Primary Growth Areas are also to serve as the industrial centers of the county, with emphasis on maximizing existing industrial properties and facilities before expanding elsewhere.

Secondary Growth Areas: Secondary Growth Areas include the areas of **Barron Lake, Marcellus, Union and Vandalia**. The Secondary Growth Areas are intended to be important growth areas in the county but are to function more as satellite growth areas in association with the more significant Primary Growth Areas. The Secondary Growth Areas do not have the same levels of public services nor do they possess the population base to support substantial expansion. Residential growth is to primarily be of a more moderate and low density character and commercial expansion should generally be limited to the central village areas of these locations. Industrial expansion is not considered beneficial except in association with existing facilities.

Highway Commercial Area

The Future Land Use Plan identifies four locations as Highway Commercial Areas, intended to accommodate primarily commercial development:

- The intersection area of M-152/M-51 and extending south to the Dowagiac River wetlands, in recognition of the existing mixed commercial and industrial character of much of this highway segment in Wayne and Silver Creek Townships.
- The intersection area of U.S.-12/M-205, in recognition of the existing mixed commercial and industrial character of the immediate area.
- The intersection area of M-40/M-60, in recognition of the commercial uses in the immediate area and the location's convenience for many residents and travelers in the regional area.

- CR-217, from U.S.-12 south to the state line in Mason and Porter Townships.

Lake-Neighborhood Residential Area

The Lake Residential Area is established in recognition of the existing lake-based residential neighborhoods that have been developed in the proximity of many of the lakes in the county, in addition to recognizing opportunities for additional similar development patterns. The defining feature of the Lake-Neighborhood Residential Area is the Plan's support for residential development of a more suburban/urban character than the lakes comprising portions of the Agricultural Preservation and Rural Residential Areas. This is due to the presence of, or anticipated provision of sewer and/or water services that accommodate increased densities and opportunities for lake residential living.

However, along with this increased opportunity for lakefront living comes the heightened importance of careful design and development practices. The county's lakes are one of its defining features and the county is interested in protecting the visual and environmental character of these resources and the environmental, recreational, and aesthetic role the lakes play. The lakes pose particular challenges due to their environmental fragility and their attractiveness for home sites and other shoreline development.

Past and future development will continue to place pressure on the lakes. It is widely recognized that development along the shores of a lake increase the potential for degradation of its character and water quality due to erosion, septic field leaching (where sanitary sewer is not available), sea wall construction, sediment discharge, and excess use of surface waters by water craft. While the Lake-Neighborhood Residential Area is largely built-out, the lakes are still vulnerable to redevelopment efforts and continued disturbances to its environmental character and integrity. Erosion and sedimentation discharge have been exacerbated as original small cottages have frequently been substantially enlarged, or otherwise razed and replaced by far more expansive homes, with increased impervious surface foot prints. The use of a waterfront lot as common open space for waterfront access for dwellings located away from the waterfront, commonly referred to as keyhole or funnel development, should be subject to comprehensive review and standards to minimize disturbances to neighboring uses and the overuse and environmental integrity of the lake.

The lakes designated as Lake-Neighborhood Residential Area are done so within the context that the development and redevelopment of lake-based neighborhoods incorporate effective measures to

protect the environmental integrity of the water resource and its shorelines including appropriate setbacks, preservation of native shoreline vegetation, proper yard waste disposal (leaves, grass cuttings, etc.), minimizing impervious surfaces, and effective management of storm water to minimize pollutants and debris entering the lake.

Agricultural Preservation Area

The Agricultural Preservation Area comprises the majority of the county. The Agricultural Preservation Area is comprised primarily of farmland along with other open spaces including woodlands as well as limited density residential areas including dispersed residences. The purpose of the Agricultural Preservation Area is to provide opportunities for and encourage farming and the preservation of farmland resources. This Area is established in recognition of the importance of agriculture and the local farming industry, including their impact on local and regional economies, the food and related products upon which we rely for sustenance and their impact on defining the predominantly rural character of the county. Agriculture is intended to be the predominant land use in this Area.

The Agricultural Preservation Area is largely characterized by conditions that support its agricultural value including: 1) predominant minimum parcel sizes typically approaching 40 acres or more; 2) comparatively limited encroachment by non-agricultural land uses; 3) active farm operations; 4) supportive soil conditions; and 5) partial enrollment in the P.A. 116 Farmland and Open Space Protection Program. The Agricultural Area encourages the continuation of all current farming activities as well as the introduction of new farming activities. Still, care should be exercised in farming practices including specialized agricultural operations that may have heightened impacts (such as large concentrated livestock operations).

Further residential encroachment in the Agricultural Preservation Area is discouraged and, to the extent new residences are introduced, densities should be very low to minimize the loss of farmland and conflicts between farm operations and neighboring land uses, more effectively manage growth, provide cost effective public services, and limit growth to specific and compact portions of the county more appropriate for development.

Potential new residents in the Agricultural Preservation Area should recognize that the traditional noises and agricultural operations associated with responsible farm operations are a significant component of the Agricultural Preservation Area and will continue on a long term basis.

Rural Residential Area

The Rural Residential Area comprises the greatest portion of the township not otherwise included in the Agricultural Preservation Area. The Rural Residential Area is characterized predominantly by a lesser presence of farming activities and a considerably greater presence of residential development and land division patterns that substantially undermine long-term economically viable farming. The Rural Residential Area encourages the continuation of farming operations while, at the same time, is intended to provide opportunities for low-density residential development that encourages the preservation of the community's overall rural character, natural resources, and open spaces, and accommodates rural residential lifestyles.

Like the Agricultural Preservation Area, it is intended that development densities in the Rural Residential Area be comparatively low. Low densities are supported by a number of factors including:

- The lack (typically) of public sewer and water.
- The county's interest in managing growth, providing cost effective public services, and limiting urban development densities to specific and compact portions of the county.
- The county's commitment to protecting its natural resources and rural character.
- The presence of a market for low-density rural home sites.

The Rural Residential Area's support for low development densities is not intended to encourage large-lot zoning (such as five and ten-acre lots) but, rather, home sites of one to two acres in size in association with abundant dedicated open space through what is commonly referred to as "open space zoning" and "clustering."

Resource Conservation Overlay Area

The Resource Conservation Overlay Area includes those portions of the county comprised of wetlands, river and stream corridors, lake shoreline areas, and woodlands. These resources provide important environmental benefits including habitats for wildlife, flood control, groundwater recharge and discharge, and surface water purification. In addition, they provide special opportunities for recreation and contribute to the county's overall rural character and desirability as a place of residence and business.

In light of the significance of these resources, the FLUP strongly supports their protection. Preservation should take precedence over the unnecessary disturbance and/or destruction of these resources. The presence of such resources in areas designated for development should be recognized in land use and development deliberations and decisions. Where a portion of a parcel contains environmentally sensitive areas, development should be directed elsewhere on the site. In addition, encouraging what is commonly referred to as "open space developments" or "clustering" is a preferred approach for accommodating development.

See conservation policies under "Lake-Neighborhood Residential Area" also.

Pokagon Band of Potawatomi Indians (PBPI)

The Future Land Use Plan establishes a Pokagon Band of Potawatomi Indians Area, which includes those larger tracts owned or otherwise occupied by the PBPI. The PBPI are an important element of Cass County and its presence contributes to the county's diversity and history. The PBPI assists county agencies in providing important social and emergency services. The PBPI is committed to ensuring the welfare and prosperity of its members and the FLUP supports the use, development and preservation of the PBPI Areas in a manner compatible with the prevailing county and local land use policies applicable to surrounding parcels.

LOCAL PARTICIPATING MUNICIPALITY FUTURE LAND USE PLANS

**Village of Edwardsburg Village of Vandalia Pokagon Township
Silver Creek Township Volinia Township Wayne Township**

Introduction

This portion of the Master Plan identifies the desired pattern of land use, development and preservation throughout each of the six Local Participating Municipalities. The Future Land Use Plans consist of policies regarding future land use and development in the respective community. Implementation of these policies rests with the regulatory tools of the Township – most importantly local zoning provisions. A zoning ordinance generally regulates the type, location, and intensity of land development. Tools to further the implement the policies of this Plan are discussed in Chapter Five.

The foundation of each of the Future Land Use Plans is rooted in the goals and objectives in this Plan's Chapter Two, in addition to an assessment of relevant trends and conditions including natural and cultural features such as community attitudes, road network, public infrastructure and services, and environmentally sensitive areas. Also considered are nearby conditions in neighboring municipalities.

Each of the six FLUPs divides the respective community into "planning areas" and identifies the predominant land use pattern planned for each. These areas collectively formulate the planned land use pattern. Each of the six FLUPS is presented separately in the balance of this chapter. However, there are a number of common elements of several or more of the individual FLUPs. These common elements are presented below and referenced later in this chapter:

Boundaries

The approximate borders of planning areas of each FLUP are described in narrative form and illustrated on the Future Land Use Map. The map depicts the boundaries in more detail than the explanatory text. There is frequently room for discretion at the exact interface between the boundaries of two planning areas and appropriate uses at these points of interface. However, the approximate boundaries presented in this Chapter have been considered carefully. Significant departures are strongly discouraged except for unique circumstances and only when the public health, safety and welfare will not be undermined. Neither a FLUM nor the explanatory text is intended to

stand on its own. Both the policy discussions and map are inseparable and must be viewed as one.

Densities

Each of the FLUPs includes residential policies regarding appropriate maximum development densities. Private "community sewer systems," established as part of and to only serve a new subdivision (or similar development), should not serve as a basis for development patterns and densities contrary to the policies presented.

Scale and Character

A fundamental element of all FLUPs is that new development, both primary and secondary uses, be of appropriate scale and character with surrounding conditions. Site layout, principal buildings and accessory facilities should be of a character and design that encourages compatibility with adjacent and nearby land uses and the community as a whole.

Farmland Preservation Areas

All of the township FLUPs include areas designated as "Farmland Preservation Areas." These Areas are established in recognition of the importance of agriculture and the local farming industry, and the presence of numerous factors that support its long-term agricultural value. These factors may include: 1) minimum parcel sizes typically approaching 40 acres or more; 2) limited encroachment by non-agricultural uses; 3) active farm operations; 4) considerable enrollment in the P.A. 116 Farmland and Open Space Protection Program; and 5) soil conditions.

Residential Areas

All of the FLUPs include areas where the primary use is to be residential including neighborhoods. The appropriateness of the location of these residential areas is supported by several or more conditions including: 1) the presence of existing suburban/urban development patterns; 2) improved access via highways and other enhanced road infrastructure; 3) in the case of the township's, proximity to the City of Dowagiac and its urban character and services; 4) heightened proximity to fire protection services; 5) public sewer and/or water services; and/or 6) lesser long-term agricultural value.

Lake Development

Lakes are defining features of many of the Local Participating Municipalities. While they are magnets for residential development and the recreational, aesthetic, and investment benefits that come with lakefront living, the lakes have equally important environmental roles. All new development and redevelopment should incorporate measures that protect surface waters including lakes and streams. Such measures may include but not be limited to appropriate density restrictions, special setbacks, preservation of native shoreline vegetation, proper yard waste disposal (leaves, grass cuttings, etc.), effective and well maintained septic systems (where sanitary sewer is not present), and effective management of storm water to minimize pollutants and debris impacting these resources.

General Policies

It is not the intent of the FLUPs to identify the specific uses that should be permitted in each area of the community. The FLUPs present broad-based policies regarding the dominant land use(s) to be accommodated in each in addition to secondary uses. Specific permitted land uses will be determined by the zoning provisions of the community, based upon considerations of compatibility. There may be certain existing land uses that do not “fit” with the planned future land use pattern. This should not be necessarily interpreted as a lack of support for the continuation of such uses. Zoning provisions will clarify this matter.

Phased Zoning

This Plan recommends the rezoning of land to a more intensive zoning district in a phased or incremental manner only. For example, while the Plan may identify locations that are appropriate to accommodate suburban residential development, the Plan does not recommend “across the board” or immediate rezonings of such land from existing low density residential districts to high density districts. The Plan recommends that rezonings to more intensive districts occur incrementally over time to ensure the community is capable of:

- meeting the increased public service demands
- managing township-wide growth and development
- adequately reviewing rezoning requests as they apply to the specific subject property
- minimizing unnecessary hardships upon the landowner as a result of the unintended creation of nonconforming lots, uses and structures

Zone Plans

Each of the FLUPs concludes with a “zone plan” to assist in implementing the FLUP’s policies. The Planning Enabling Act requires that a local municipality that exercises its zoning authority have in its master plan a “zone plan” that correlates the planning areas designated on a Future Land Use Map with zoning districts intended to implement the map, and address such matters as building height, area, location and use of buildings and property.

Table 1 of each Zone Plan identifies the existing or suggested zoning districts to implement each of the planning areas presented in the respective FLUP, and the intended primary uses in each district in addition to example secondary uses.

Table 2 of each Zone Plan establishes guidelines for basic site development standards of the zoning districts intended to implement the Future Land Use Map. The guidelines are not intended to address all circumstances. Existing and/or future conditions may suggest variations from such standards to address such matters as, but not limited to:

- the presence or lack of sanitary sewer
- special building height provisions for towers and other special structures
- special lot area provisions for two-family versus single-family dwellings
- uses of a unique nature including “special land uses”
- special setback provisions for corner lots, unusually narrow or shallow lots, special environmental conditions, nonresidential uses adjacent to residences, and to more effectively encourage a “small-town” and pedestrian-friendly environment through lesser setbacks for street-side storefronts

VILLAGE OF EDWARDSBURG
Future Land Use Plan**M-62 Mixed Use Corridor**

The M-62 Mixed Use Corridor extends along M-62 north from the village's southern border to encompass the U.S.-12 intersection area including U.S.-12 east to the village's limits. This highway segment is characterized by a mix of commercial uses along the east side of the highway. The west side includes the Canadian National Railroad and a mix of primarily residences, commercial uses, abandoned buildings and open space just west of the Railroad.

The M-62 Mixed Use Corridor is established in support of the continuation of this mixed use pattern, and to provide opportunities for increased residential opportunities along the corridor's east side. Primary commercial uses along the Corridor's east side are to be uses that address day-to-day needs of the local population, seasonal visitors and highway travelers, including retail sales, offices, personal services, and eateries. Secondary commercial uses include those that provide additional benefits and which may cater to a more regional population, and/or are of a size, scale or intensity (including "big box" developments) that increases the potential for negative impacts. Such uses are to be subject to special review proceedings. The M-62 Mixed Use Corridor supports opportunities for residential uses above commercial storefronts.

The west side of the corridor includes those lots in immediate proximity to the railroad. The Plan supports the continued presence of residences along the railroad while, at the same time, recognizing that the residential use of lots adjacent to the railroad raises special challenges. Still, the use of these lots for commercial purposes can be particularly problematic for the residences and neighborhoods further west due to traffic and other issues.

The use of lots immediately adjacent to the west side of the railroad for non-residential purposes may be appropriate in the case where the proposed use can be accommodated on the lot without resulting in unreasonable impacts upon the use and enjoyment of nearby residential uses, taking into consideration such factors as traffic generation, traffic flow patterns, opportunities for substantive screening, hours of operation, and noise. To this end, commercial uses should be of a more service-oriented character or otherwise be low traffic generators and be able to be accessed from M-62 versus the neighborhoods to the west. The proximity of residential neighborhoods presents special challenges for the accommodation of industrial activities along the railroad. Still, small-scale industry has been present in the past and there may be opportunities for low intensity and small-scale industry.

Uptown Commercial Area

The Uptown Commercial Area includes the Main Street business area, extending east from First S. to the Cass Street intersection. The Area extends approximately 300' north and south of Main Street and also includes the lots bounded by Lake, Church and Cass Streets. The Uptown Commercial Area reflects a traditional mixed-use village pattern including commercial, residential, and public uses. The existing businesses cater to the needs of the local community and highway traveler. The Plan supports the presence of the Uptown Commercial Area as an important defining feature of the village, as a place of locally-oriented commerce and social gathering.

Commercial uses are to continue to cater to the consumer needs of the local community and highway traveler and accommodate commercial uses that are of a design and scale that supports the village's small-town character. To preserve the Area as a small commerce center, residences should be limited to those above commercial storefronts. The Uptown Commercial Area is to encourage safe and convenient pedestrian circulation and activity and the inclusion of streetscape and other amenities that enhance its vitality, energy, and sense of place. Off-street parking in the front of buildings is to be discouraged in favor of creating and maintaining a street space available to and comfortable for pedestrians.

The Uptown Commercial Area is not to evolve into an extended strip business center although limited expansion to permit the incremental conversion of immediately adjacent lots to commercial or other alternative uses is reasonable where such alternative uses support the purpose of the Area and not undermine the character of nearby residential uses and their use and enjoyment.

Village Residential Area

The Village Residential Area is established in recognition of the existing and predominantly single family residential neighborhoods in Edwardsburg, to support the stability and upkeep of such residential settings, and to provide additional opportunities for neighborhood growth and redevelopment of similar character. The Village Residential Area includes the majority of the village not otherwise part of the M-62 Mixed Use Corridor or Uptown Commercial Area. Development densities throughout the Village Residential Area vary but primarily range from four to six dwellings per acre (approximately 7,000 to 12,000 sq. ft. per dwelling) and the Plan supports the maintenance of this density range across the majority

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of the Village Residential Area. Development densities in any specific portion of the Village Residential Area should take into consideration the character of adjacent residential development patterns to ensure compatibility. However, ensuring compatibility need not prohibit adjacent neighborhoods of substantially differing densities where measures are to facilitate compatibility along shared borders such as through special landscaping measures, increased setbacks, and/or the location of open spaces. The Plan supports the presence of the Edwardsburg Schools campus as part of the Village Residential Area and the educational, recreational, economic and civic opportunities it provides.

High Density Residential Areas

The Future Land Use Plan identifies several locations in the village for substantially higher density lifestyles than planned for the Village Residential Area. The High Density Residential Areas recognize the presence of the village's single manufactured housing community

at the south end of the village and the apartment complexes off of Section Road and behind the M-62 and U.S.-12 corridors in the east central part of the community. The Plan supports the provision of alternative living arrangements to meet the varied housing needs and desires of its current and future residents, and the maintenance and upkeep of these neighborhoods. These facilities provide considerable opportunities for apartment and manufactured housing community living, and the Plan does not support the expansion of these areas or the introduction of housing of similar character elsewhere in the village (except as described under M-62 Mixed Use Corridor). However, the Plan does support the redevelopment of any portions of these neighborhoods that reflect blight conditions, conditions not supportive of a safe living environment, or other conditions that negatively impact nearby properties or the community as a whole.

VILLAGE OF EDWARDSBURG

Zoning Plan – Table 1

Overview of Recommended Zoning Districts and Relation to Future Land Use Plan

Zoning Districts (example names)	Primary Relationship to Future Land Use Plan / Map	Intended Dominant Uses	Intended Secondary Uses (examples)
Low Density Residential	Village Residential Area	single-family residences	parks, schools, religious institutions, assisted living facilities
Medium Density Residential	Village Residential Area	single -family residences	parks, schools, religious institutions, assisted living facilities
High Density Residential	Village Residential Area	single and two-family residences	parks, schools, religious institutions, assisted living facilities
Multiple Family Residential	M-62 Mixed Use Corridor / High Density Residential Area	multiple family developments such as apartments and townhouses	parks, schools, religious institutions, assisted living facilities, day care centers
Manufactured Housing Community	M-62 Mixed Use Corridor / High Density Residential Area	manufactured housing communities (mobile home parks)	parks, schools, religious institutions, assisted living facilities, day care
Local Commercial	M-62 Mixed Use Corridor / Uptown Commercial Area	uses that cater to local needs such as offices, personal services, restaurants	other uses that cater to local needs such as gas stations, car repair, funeral homes, taverns, drive-through
General Commercial	M-62 Mixed Use Corridor / Uptown Commercial Area	uses that cater to a more regional population including retail, offices, personal services, trade showrooms, health clubs	same as above in addition to more regional uses such as funeral homes, hotels, building materials sales, mini-storage
Light Industrial	M-62 Mixed Use Corridor	industrial uses of a "light" character such as, electrical appliance assembly and tool/die.	more marginal light industrial uses such plastic molding and warehousing.

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VILLAGE OF EDWARDSBURG**Zoning Plan – Table 2****Zoning Districts / Site Development Guidelines**

Zoning District	Minimum Lot Area	Minimum Lot Width	Maximum Building Height	Maximum Lot Coverage	Minimum Yard Setback		
					Front	Side	Rear
Low Density Residential	12,000 sq. ft.	100 ft	35 ft.	30%	30 ft.	20 ft.	25 ft.
Medium Density Residential	8,000 sq. ft.	70 ft	35 ft.	35%	25 ft.	10 ft.	25 ft.
High Density Residential	5,000 sq. ft.	50 ft	35 ft.	40%	20 ft.	5 ft.	25 ft.
Multiple Family Residential	3,000 sq. ft. per dwelling	80 ft.	35 ft.	35%	30 ft.	25 ft.	25 ft.
Manufactured Housing Community	Compliance with Mobile Home Commission Rules.						
Local Commercial	Flexible	Flexible	40 ft.	60%	25 ft.	15 ft.	30 ft.
General Commercial	1 acre	100 ft.	40 ft.	60%	25 ft.	25 ft.	25 ft.
Light Industrial	1 acre	100 ft.	40 ft.	60%	50 ft.	25 ft.	50 ft.

VILLAGE OF VANDALIA

Future Land Use Plan

Downtown Mixed Use Corridor

The Downtown Mixed Use Corridor extends along State Street from the Christiana Creek corridor east to Maple Street. This Area includes the village's former active business area and most of the few businesses that remain in the village. The Downtown Mixed Use Corridor continues to reflect a mixed-use development pattern, with businesses catering to the needs of the local community and highway traveler. The Plan supports the redevelopment and growth of this corridor as a thriving business center and one which continues to reflect a mixed use pattern. It is the intent of the Downtown Mixed Use Corridor to facilitate the revitalization of Vandalia's downtown as a healthy retail and office district along with housing.

Residential uses are to be principally of a single and two-family dwelling character, at maximum densities of approximately four dwellings per acre, in addition to housing above commercial storefronts. Apartments and other higher-density housing arrangements may also be appropriate along limited segments of State Street where in scale and character to reasonably blend with surrounding conditions, be served by

adequate infrastructure and services, and minimize impacts on adjacent land uses.

In recognition of the role the Main St./State St. intersection plays, including the access and visibility provided by these primary thoroughfares, uses within approximately 300' of this intersection are to be of a predominantly commercial or public character. Public uses should be those that serve local residents such as village offices, meeting facilities, community centers, and similar uses that benefit by immediate proximity to area residents.

The State Street Mixed Use Corridor is to continue to cater to the consumer needs of the local community and highway traveler and accommodate commercial development that is of a design and scale that supports the village's small-town character. The conversion of existing dwellings and residential lots to small retail, office or similar commercial uses is appropriate.

Development in this Corridor is to be designed to support the desired "small town" character of the village, encourage a sense of place unique to Vandalia, and facilitate safe and efficient non-motorized travel along State Street including linkages with surrounding neighborhoods and recreation areas.

Important design elements within this corridor are to address shared access to minimize the number of curb cuts, the location of parking areas to the rear and thereby making the street side available to and more comfortable for pedestrians, and uniform sign, lighting and landscaping to create a unified and visually pleasing corridor.

Village Residential Area

The Village Residential Area is established in recognition of the existing residential neighborhoods in the downtown area of Vandalia, to support the stability and upkeep of such residential settings, and to provide additional opportunities for neighborhood growth of similar character in close proximity to the downtown area and its services including emergency and consumer services and parks and recreation facilities.

Residential development should be of a principally single family and two-family character, with densities not to exceed approximately four dwellings per acre. Opportunities for residential lifestyles of a denser character, including apartments, townhouses, and subdivisions with lots less than ¼-acre, may be appropriate on a limited basis provided such developments are of a scale and character so as to reasonably blend with surrounding conditions, be served by adequate infrastructure and services, and minimize impacts on adjacent land uses.

In light of the village's existing and desired small-town character, large high density residential developments, including large multiple-family and large mobile home park developments, are not intended for the Village Residential Area.

Mixed Use Rural Area

The Mixed Use Rural Area is intended to accommodate a variety of land uses but be reserved principally for farming and lower density residential development, including the accommodation of more rural lifestyles than provided elsewhere in the village. Overall development densities in this Area are to be comparatively low, in recognition of the purpose of this Area, and the Village's interest in managing growth and development and minimizing conflicts between farm operations and new residential development.

Principal uses are to be farming and housing of a lower density and more rural character than provided elsewhere in the village. Densities should typically not exceed one dwelling per two to three acres in the more outlying limits of the Mixed Use Rural Area, except that densities of one dwelling per one acre (approximately) are considered reasonable where in close proximity to primary thoroughfares such as State Street and White Temple Road.

Higher density housing options such as apartments and assisted living facilities, may be reasonable in the Mixed Use Rural Area provided such developments, as viewed from nearby roads and surrounding properties, support the intended character of the Area including appropriate building setbacks, the incorporation of substantial open space areas into the development project, and complimentary landscaping and screening.

Light industrial activities may be appropriate under certain conditions, where located adjacent to agricultural operations, set back adequate distances from existing dwellings and neighborhoods, appropriately landscaped and screened to minimize impacts on surrounding uses and support the intended character of the Area, and be served by adequate services and infrastructure including roads. The continuation of farming on a long term basis is encouraged provided there is compliance with the Department of Agriculture's *"generally accepted agricultural management practices."* However, large-scale intensive livestock operations are not intended for this Area.

Christiana Creek Conservation Corridor

The Christiana Creek Conservation Corridor comprises Christiana Creek and the lowlands along the creek. This Corridor is comprised predominantly of woodlands, wetlands, and public outdoor recreation areas. The Corridor is intended to encourage the preservation of the woodland, wetland and wildlife environments of the Corridor, the flood protection value the Corridor provides, and the recreation opportunities embodied in the Corridor. Principal land uses are to be agriculture, conservation-based uses including open space recreation areas, and low density housing. Housing densities should typically not exceed one dwelling per two to three acres. Construction activities are to be appropriately set back from the creek and shoreline areas, and construction within flood prone areas of the Corridor are to be minimized.

State Street Corridor Exceptions

State Street is the primary thoroughfare in the village in regard to infrastructure, capacity, and the access and visibility it affords. The more eastern and western segments of State Street, which are within less developed portions of the village, provide opportunities for more intensive uses that are not considered appropriate for the Downtown Mixed Use Corridor including light industrial uses and commercial uses that draw from a more regional market and frequently produce heightened levels of vehicular traffic and rely on comparatively large bulk buildings. However, it is a fundamental policy of this Future Land Use Plan that State Street does not evolve into an endless pattern of strip commercial development, or disjointed

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development patterns, or otherwise evolve in a manner that is not complimentary to the village as a whole.

The Future Land Use Plan recognizes that one or more proposals may surface that are not directly coordinated with the principal policies of the respective planning areas previously discussed. The Future Land Use Plan supports divergence from such policies upon a finding that the proposal has far greater benefits to the village

as a whole and/or the prospective users of the particular property than the less desirable impacts such a proposal may have, provided such a determination is based on in-depth and comprehensive analysis of the circumstances. Further, prior to the approval of such a proposal, applicable amendments to the Future Land Use Plan should be considered if warranted.

VILLAGE OF VANDALIA Zoning Plan –Table 1

Overview of Recommended Zoning Districts and Relation to Future Land Use Plan

Zoning Districts (example names)	Primary Relationship to Future Land Use Plan / Map	Intended Dominant Uses	Intended Secondary Uses (examples)
Agricultural-Rural Residential	Implements "Mixed Use Rural Area" and "Christiana Creek Conservation Corridor"	agriculture, single family residences, and conservation-based uses.	parks, schools, religious institutions, assisted living facilities, campgrounds, kennels, and bed and breakfasts
Low Density Residential	Implements "Mixed Use Rural Area"	single and two-family residences	parks, schools, religious institutions, and assisted living facilities
Medium Density Residential	Implements "Village Residential Area"	single and two-family residences	Parks and other public facilities, schools, religious institutions, assisted living facilities, and day care centers
High Density Residential	Implements "Village Residential Area"	single and two-family residences	parks, schools, religious institutions, assisted living facilities, and day care centers
Multiple Family Residential	implements "Village Residential Area" and "State Street Mixed Use Corridor"	multiple family developments such as apartments and townhouses	parks, schools, religious institutions, assisted living facilities, and day care centers
Manufactured Housing Community	implements "Village Residential Area"	manufactured housing Communities (mobile home parks)	parks, schools, religious institutions, assisted living facilities, and day care centers
Local Commercial	implements "State Street Mixed Use Corridor"	commercial uses that cater to local needs including retail, offices, personal services, and conventional restaurants	other commercial uses that cater to local needs such as gas stations, car repair, funeral homes, taverns, and drive-through services
General Commercial	implements "State Street Mixed Use Area" (east and west ends principally)	uses that cater to the needs of a more regional population including retail, offices, personal services, trade showrooms, and health clubs	same as above in addition to more regional uses such as funeral homes, hotels, building materials sales, and mini-storage
Light Industrial	implements "State Street Mixed Use Area" (east and west ends principally) and "Mixed Use Rural Area"	industrial uses of a "light" character such as, assembly of electrical appliances and tool and die.	more marginal light industrial uses such plastic molding and warehousing.

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VILLAGE OF VANDALIA Zoning Plan –Table 2

Village of Vandalia Zoning Districts / Site Development Guidelines

Zoning District	Minimum Lot Area	Minimum Lot Width	Maximum Building Height	Maximum Lot Coverage	Minimum Yard Setback		
					Front	Side	Rear
Agricultural-Rural Residential	1 – 3 acres	200 ft.	35 ft.	15%	50 ft.	15 ft.	50 ft.
Low Density Residential	20,000 sq. ft.; 60,000 sq. ft. for TFDs	100 ft.; 165 ft. for TFDs	35 ft.	20%	50 ft.	15 ft.	50 ft.
Medium Density Residential	8,700 sq. ft.; 12,000 sq. ft. for TFDs	70 ft.; 90 ft. for TFDs	35 ft.	35%	30 ft.	10 ft.	25 ft.
High Density Residential	5,000 sq. ft.; 6,000 sq. ft. for TFDs	50 ft.; 70 ft. for TFDs	35 ft.	40%	20 ft.	5 ft.	20 ft.
Multiple Family Residential	4,000 sq. ft. per dwelling	80 ft.	35 ft.	35%	50 ft.	25 ft.	25 ft.
Manufactured Housing Community	Compliance with Mobile Home Commission Rules.						
Local Commercial	Flexible	Flexible	40 ft.	60%	5 ft.	5 ft.	20 ft.
General Commercial	1 acre	200 ft.	40 ft.	60%	40 ft.	20 ft.	20 ft.
Light Industrial	1 acre	200 ft.	40 ft.	70%	50 ft.	20 ft.	20 ft.

TFD = Two family dwelling

POKAGON TOWNSHIP Future Land Use Plan

Agricultural Preservation Area

The Agricultural Preservation Area comprises the vast majority of the township and is nearly entirely farmland along with other open spaces including parks, woodlands and some wetlands, and comparatively limited and dispersed residences. The intent of the Agricultural Preservation Area is to provide opportunities for and encourage long-term farming and the preservation of farmland resources. This Area is established in recognition of the importance of agriculture and the local farming industry, and the presence of numerous factors that support its long-term agricultural value.

Opportunities for new residences are to be very limited to minimize the loss of farmland and conflicts with farm operations, and advance the township's commitment to managing growth, providing cost effective public services, and limiting development to specific and compact portions of the community. Maximum

development densities should be based upon a sliding scale that coordinates a parcel's acreage with the maximum number of residential splits considered appropriate, recognizing the increased economic viability and importance of large acreage farming operations and the corresponding increased importance of limiting residential consumption of such acreage. Under such a program, a parcel of 160 acres would have disproportionately greater limitations on new home sites as compared to existing parcels of less than 40 acres. General guidelines for such a sliding scale should be one dwelling per approximately 5 to 20 acres for lower-end sized parcels, such as parcels of 40 acres or less, and one dwelling per 50 to 100 acres for higher-end sized parcels such as parcels of 160 acres or greater (with middle sized parcels falling between these two ranges). This sliding scale approach is not to suggest that large minimum parcel sizes for home sites should be instituted (such as 20 or 40-acre home sites), as such practices can undermine

the township's rural character and the economic stability of farm operations, heighten the rate at which farmland is converted to alternative uses, encourage the destruction of ecosystems and natural resources, and encourage the inefficient use of the township's land resources.

Residential Settlement Areas

The Residential Settlement Areas are comprised of the township's principal existing settlement areas including areas adjacent to Dowagiac and the Sumnerville and Pokagon settlements. The Residential Settlement Areas are established in recognition of the existing settlement areas of the township, including support for the protection of the desirability and stability of these neighborhoods, and to provide opportunities for additional residential development of a similar character than planned elsewhere in the township. The primary uses of land are to be limited to single family and two-family residences. Secondary uses are to be limited to alternative living arrangements such as townhouses, apartments, assisted living facilities, and similar housing options, and uses that directly support and enhance desirable residential areas such as schools and religious institutions.

Development densities of one dwelling per one acre are considered reasonable in the absence of sanitary sewer service. Development densities of three to four dwellings per acre are considered reasonable in the presence of such service. Greater densities including townhouses and apartments may be reasonable but only after special review to determine if such proposal is appropriate on the particular site, taking into consideration such factors as compatibility with surrounding conditions, likely environmental impacts, adequacy of infrastructure and services to serve the development, and available design measures to minimize impacts upon existing neighborhoods.

M-51 Mixed Use Corridor

The M-51 Mixed Use Corridor extends along M-51 approximately one mile north and one-quarter mile south of Peavine St. This highway segment is characterized by farmland, uses of a commercial and industrial character, and numerous residences including extended segments of strip residential development. The Corridor is located principally along the west side of the highway where non-residential uses are most dominant. The M-51 Mixed Use Corridor is intended to accommodate primarily commercial uses and light industry and is established in recognition of the existing commercial and industrial uses along these highway segments and the excellent access and visibility available, and to provide opportunities for additional commercial services and industry. Commercial/industrial development may extend into the Agricultural Preservation Areas directly behind the Corridor where it is determined that the necessary

acreage is appropriate for desirable Corridor development, but such development should not extend more than approximately 1,000 feet from the highway.

Primary commercial uses are to be limited to uses that address day-to-day needs of the local population, seasonal visitors and highway travelers, including retail sales, offices, personal services, and eateries. Secondary commercial uses include those that provide additional benefits and which may cater to a more regional population and/or are of a size, scale or intensity that increases the potential for negative impacts. Such uses are to be subject to special review proceedings. Industrial uses are to be limited to those of a low intensive character such as assembly of pre-manufactured products and communication and information technologies. Site layout, principal buildings and accessory facilities along the Corridor should be of a character and design that encourages compatibility with adjacent and nearby land uses and the community as a whole, including highway access management; signage; building height, size, and bulk; and landscaping/screening.

In the absence of a market for commercial or industrial uses within this corridor, this corridor may be appropriate for farming and residential growth of a character described under "Residential Settlement Areas." However, prospective residents should be aware that neighboring parcels and other portions of this Corridor may transition into commercial and/or industrial uses.

While the Future Land Use Plan supports the continued presence of the scattered residences along portions of Mixed Use Corridor, to the extent desired by those residing within, the Plan also recognizes the past incremental commercialization of this segment of M-51 and the value of accommodating additional commercial and industrial uses in this Corridor. The Future Land Use Plan supports appropriate landscaping and screening as new non-residential uses are established to minimize negative impacts on existing residences. At the same time, the Plan also finds the incremental conversion of residences to non-residential uses to be reasonable provided measures are taken to minimize impacts upon nearby residences.

Mixed Use Village Areas

The unincorporated villages of Sumnerville and Pokagon exhibit a mixed-use character dominated by comparatively higher density residential patterns along with several commercial and public uses. The villages are the township's original settlement areas. Both have witnessed decline in more recent years in population, care of properties, and loss of businesses. The Future Land Use Plan supports the improvement and redevelopment of these settlement areas. Their role as future growth areas is supported by their historical

significance, the presence of M-51 and county primary roads, proximity to fire protection services, the existing population base and its potential to grow. The Plan recommends that these village areas continue to provide opportunities for a mixture of village uses with an emphasis on residential development and supporting commercial services, and the preservation of their existing small-town character.

Residential development is to be guided by the density policies presented under "Residential Settlement Areas." Commercial uses are to be located in a compact manner in an effort to establish clear business districts with their own identities and ones that encourage walkable and pedestrian-friendly environments. In Summerville, businesses are to be limited to the Pokagon Highway corridor. In Pokagon, businesses are to be limited to the Pokagon Highway corridor and along M-51. Special care is to be exercised to assure businesses do not undermine the essential residential character and quality of life of nearby residences and neighborhoods through appropriate site design and mitigating measures. Businesses are to be oriented toward the local population base and be of such design and scale to support the villages' small-town character.

Dowagiac Commercial Area

The Dowagiac Commercial Area is comprised of approximately 1,500 feet of strip commercial development along the north side of M-51 adjacent to the City of Dowagiac and extending from the M-62 intersection to just west of Lyle Street. This segment of M-51 is a continuation of the commercialized M-51 and M-62 corridors through the city. The Dowagiac Commercial Area is established in recognition of the existing commercial development comprising this segment of M-51 and the greater business district of which it is part. The city has identified this commercial area for general business purposes and this Future Land Use Plan supports the same program for the Dowagiac Commercial Area.

Indian Lake Commercial Area

The Indian Lake Commercial Area covers the immediate M-62/Indian Lake Road intersection area and extends east along both sides of M-62 for a distance of approximately 1,500'. This highway segment currently includes a discount business and a mini-storage facility. The Indian Lake Commercial Area is established in recognition of the partial commercialization of this highway segment, the presence of the Indian Lake population base and highway traffic that support the viability of additional but limited commercial services in the area, the value of the convenience of such services, and the excellent access and visibility afforded by this highway segment. Uses are to address the day-to-day needs of the local population, seasonal visitors and highway travelers,

including retail sales, offices, personal services, and eateries. Larger-scale uses that cater to a more regional population base are discouraged. Site layout, principal buildings and accessory facilities should be of a character and design that recognizes and supports the dominant rural and residential character of the immediate surrounding area including the lakefront development to the north.

Park Place Mixed Use Area

The Park Place Mixed Use Area includes both sides of Park Place between Edwards and Peavine Streets and extends west approximately one-quarter mile. It also extends south of Edwards Street to encompass the Four Winds Casino Dowagiac. This area is characterized principally by industry, the casino, and farmland. A small office complex is present on the east side of Park Place near Peavine Street. The Park Place Mixed Use Area is intended to function as a mixed-use area comprising the township's principal industrial center and the casino including limited secondary commercial uses addressing the needs of casino visitors. Industrial activities should be of a comparatively "light" character. In the absence of a market for industry and as a means to minimize impacts upon residences further east along M-51, the accommodation of additional office and locally oriented commercial services on the east side of Park Place is considered reasonable.

Resource Conservation Area

The Resource Conservation Area is comprised of the township's wetland resources and its river and stream corridors. The Resource Conservation Area provides for the protection of the township's wetlands, in recognition of the vital role these resources play including flood control, wildlife habitats, recreation, ground water recharge, and their contribution to the valued rural character of the community, and the extreme obstacles wetlands present for development. The protection measures are to be principally through limitations on the use of and disturbance to such resources.

Primary uses are to generally be limited to natural and conservation areas, wildlife protection areas, outdoor recreation, agriculture, and very limited residential encroachment. Maximum development densities along river and stream corridors where wetlands are limited or otherwise absent should not exceed those of the most dominant surrounding Planning Area as delineated on the Future Land Use Map. Maximum development densities in wetland areas are to be restricted according to a scale similar to that as described for the Agricultural Preservation Area. All development within the Resource Conservation Area is to be subject to design measures to minimize negative environmental impacts including measures to address

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erosion and sedimentation, clearing, vegetative buffers, and filling.

POKAGON TOWNSHIP Zoning Plan – Table 1

Overview of Recommended Zoning District Structure and Relation to Future Land Use Map

Zoning District (example names)	Primary Relationship to Future Land Use Map	Primary Intended District Uses	Examples of Secondary District Uses
<u>OSP</u>: Open Space Preservation	Resource Conservation Area	Open space, nature areas, wildlife areas, and resource-based recreation such as hunting	Single family dwellings
<u>AG</u>: Agricultural	Agricultural Preservation Area	Agriculture and limited single family dwellings	Veterinary clinics, kennels, and bed and breakfasts
<u>R-1</u>: Low Density Residential	Residential Settlement Areas	Single family dwellings	Golf courses, schools, religious institutions, and parks
<u>R-2</u>: Medium Density Residential	Residential Settlement Areas	Single and two-family dwellings	Golf courses, schools, religious institutions, and parks
<u>R-3</u>: High Density Residential	Residential Settlement Areas	Single and two-family dwellings	Schools, religious institutions, and parks
<u>R-MHC</u>: Manufactured Housing Community	Residential Settlement Areas	Manufactured housing communities	Day care facilities
<u>R-MF</u>: Multiple Family	Residential Settlement Areas	Apartments, townhouses, and similar living arrangements.	Assisted living facilities, golf courses, and parks
<u>C-1</u>: Local Commercial	M-51 Mixed Use Corridor, Indian Lake Commercial Area, Dowagiac Commercial Area, and Mixed Use Village Areas	Retail, office and personal service uses catering to local needs	Kennels, taverns, and fast-food restaurants
<u>C-2</u>: General Commercial	M-51 Mixed Use Corridor, Indian Lake Commercial Area, and Dowagiac Commercial Area	Uses that serve a more regional population or require facilities of greater size/scale, including retail, offices, personal services, trade showrooms, and health clubs	Hotels, vehicle sales, taverns, fast-food restaurants, funeral homes, building materials sales, and mini-storage
<u>I-1</u>: Light Industrial	M-51 Mixed Use Corridor and Park Place Industrial Area	Industrial uses of a “light” character such as small parts assembly, equipment repair, and information technologies	Somewhat higher impact uses such as lumber mills, metal plating, light manufacturing, and commercial warehousing

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POKAGON TOWNSHIP Zoning Plan – Table 2

Site Development Standards Guidelines

Zoning District (example name)	Minimum Lot Area	Minimum Lot Width and Frontage	Maximum ¹ Building Heights	Minimum Yard Setback (each)		
				Front	Side	Rear
OSP: Open Space Preservation	10 acres	330 ft.	35 ft.	50 ft.	30 ft.	30 ft.
AG: Agricultural	40 acres ²	200 ft.	35 ft.	50 ft.	30 ft.	30 ft.
R-1: Low Density Residential	20,000 sq. ft.	100 ft.	35 ft.	30 ft.	10 ft.	30 ft.
R-2: Medium Density Residential	10,000 sq. ft.	70 ft.	35 ft.	35 ft.	10 ft.	30 ft.
R-3: High Density Residential	5,000 sq. ft.	50 ft.	35 ft.	20 ft.	10 ft.	30 ft.
R-MHC: Manufactured Housing Community	Conformance with Rules and Regulations of Manufactured Housing Commission					
R-MF: Multiple Family	1 acre	150 ft.	35 ft.	30 ft.	25 ft.	30 ft.
C-1: Local Commercial	20,000 sq. ft.	150 ft.	35 ft.	50 ft.	20 ft.	20 ft.
C-2: General Commercial	20,000 sq. ft.	150 ft.	35 ft.	50 ft.	20 ft.	20 ft.
I-1: Light Industrial	2 acres	200 ft.	40 ft.	50 ft.	40 ft.	50 ft.

Footnotes:

1. In addition to maximum building height limitations, maximum lot coverage by buildings are to be approximately 20% – 30% in residential districts and 40% – 50% in commercial and industrial districts.
2. While typical minimum lot sizes of approximately 40 acres are recommended for the A-1 District, opportunities should be made available for a limited number of smaller splits of no greater than approximately two acres in size, according to a sliding scale formula based on the acreage of the parcel to be split.

SILVER CREEK TOWNSHIP Future Land Use Plan

Agricultural Preservation Area

The Agricultural Preservation Area comprises the vast majority of the township and is nearly entirely farmland along with other open spaces and dispersed residences. The intent of the Agricultural Preservation Area is to provide opportunities for and encourage long-term farming and the preservation of farmland resources, while also providing opportunities for rural residential lifestyles. This Area is established in recognition of the importance of agriculture and the local farming industry and the presence of numerous factors that support its long-term agricultural value.

The primary use of land in the coming ten years is to be agriculture. Still, the township does not support a policy of restrictive limitations on the pursuit of alternative residential development where personal and/or market conditions interfere with a landowner's

interest in maintaining current farming operations. Residential development in the Agricultural Preservation Area is intended to be substantially lower than as planned for the township's designated growth areas (Suburban/Lakes Residential Areas), at a density of one dwelling per approximately one acre, in recognition of the township's interest in limiting more urban development patterns to specific and compact portions of the community, and also acknowledging the presence of a market for low-density rural home sites.

Cottage Industries: It is recognized that there are some activities that can be generally described as industrial in character yet are somewhat inconspicuous in rural areas. Pole barns and similar accessory buildings are common in the township's landscape. Small-scale and appropriately managed light industry, functioning as home occupations, can exist with

minimal impact on neighboring farm and dispersed residences. The Agricultural Preservation Area supports this entrepreneurship provided measures are in place that ensure such activities do not become a nuisance or undermine the area's intended character.

Lakes Residential Areas

The Lakes Residential Areas are comprised of the township's principal existing lakefront settlement areas including Cable, Dewey, Magician, and Indian Lakes. The Lakes Residential Areas are established in recognition of these settlement areas, including support for the protection of the desirability and stability of the neighborhoods, and to provide opportunities for additional lakefront development of a similar character in the absence of wetlands.

Primary uses are to generally be limited to single family. Development densities of three to four dwellings per acre are considered reasonable in the presence of sanitary sewer service.

There may be opportunities for the establishment of small seasonal commercial uses where they are determined to be of a sufficiently small scale and operational character that negative impacts on nearby residential uses will not occur.

Suburban Residential Areas

The Suburban Residential Areas are comprised of the township's principal existing settlement areas not otherwise included in the Lake Residential Areas. The Areas are established in recognition of these existing settlements and to provide opportunities for additional development of similar character.

The primary uses of land are to generally be limited to single family and two-family residences. Secondary uses are to be limited to alternative living arrangements such as townhouses, apartments, assisted living facilities, and similar housing options, and for uses that directly support and enhance desirable residential areas such as schools and religious institutions. There may be opportunities for the establishment of small seasonal commercial uses where they are determined to be of a sufficiently small scale and operational character that negative impacts on nearby residential uses will not occur.

Development densities of three to four dwellings per acre are considered reasonable in the presence of sanitary sewer service. Greater densities including multiple family housing arrangements such as townhouses and apartments may be reasonable but only after special review to determine if such proposal is appropriate on the particular site, taking into consideration such factors as compatibility with surrounding conditions, likely environmental impacts, adequacy of infrastructure and services to serve the development, and available design measures to minimize impacts upon existing neighborhoods.

M-51 and M-62 Mixed Use Corridors

The M-51 Mixed Use Corridors extend north from Dowagiac for approximately one-half mile and from M-152 south to the Dowagiac River wetlands. The northern M-51 Mixed Use Corridor extends approximately one-half mile west along M-152 as well. The M-62 Mixed Use Corridor extends east from the Dowagiac Creek wetlands for approximately three-quarters of a mile. These highway segments are characterized principally by commercial and light industrial uses along with open spaces, farmland and scattered residences. The Mixed Use Corridors are intended to accommodate primarily commercial uses and light industry. The Mixed Use Corridors are established in recognition of the existing commercial and industrial uses along these highway segments, and the excellent access and visibility afforded these highway segments, and to provide opportunities for additional commercial services and industry.

Primary commercial uses are to be generally limited to uses that address day-to-day needs of the local population, seasonal visitors and highway travelers, including retail sales, offices, personal services, and eateries. Secondary commercial uses should be limited to those that provide additional benefits and which may cater to a more regional population and/or are of a size, scale or intensity (including "big box" developments) that increases the potential for negative impacts. Such uses are to be subject to special review proceedings. Industrial uses should generally be limited to those of a low intensive character such as assembly of pre-manufactured products and communication and information technologies.

In the absence of a market for commercial or industrial uses, and where wetlands are not present, these corridors may be appropriate for residential growth of a character described under "Suburban Residential Areas." Prospective residents should be aware that nearby parcels may transition into commercial and/or industrial uses.

Lakes Commercial Area

The Lakes Commercial Area extends along M-152 from Dewey Lake north for approximately one-quarter mile. This segment of M-152 includes several locally-oriented businesses in addition to several residences and open spaces. The Lakes Commercial Area is established in recognition of the existing commercial uses along this highway segment, and the excellent access and visibility afforded this area, and to provide opportunities for limited commercial expansion.

Uses should be generally limited to those that address day-to-day needs of the local population, seasonal visitors and highway travelers, including retail sales, offices, personal services, and eateries.

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In the absence of a market for commercial uses within this area, and where wetlands are not present, the Lakes Commercial Area may be appropriate for residential growth of a character described under "Suburban Residential Areas." However, prospective residents should be aware that neighboring parcels may transition into commercial uses.

Resource Conservation Area

The Resource Conservation Area is comprised principally of the township's wetlands. The Resource Conservation Area provides for the protection of these resources in recognition of the vital role these resources play including flood control, wildlife habitats, recreation, ground water recharge, and their

contribution to the valued character of the community. Primary uses are to generally be limited to natural and conservation areas, wildlife protection areas, outdoor recreation, agriculture, and single family residences. Maximum development densities in the absence of wetlands should not exceed one dwelling per approximately one acre. Maximum development densities where a parcel is comprise wholly of wetlands should not exceed one dwelling per 10 acres. Development within the Resource Conservation Area is to be subject to design measures to minimize negative environmental impacts including measures to address erosion and sedimentation, clearing, vegetative buffers, and filling.

SILVER CREEK TOWNSHIP Zoning Plan – Table 1

Overview of Recommended Zoning District Structure and Relation to Future Land Use Map

Zoning District (example names)	Primary Relationship to Future Land Use Map	Primary Intended District Uses	Examples of Secondary District Uses
OSP: Open Space Preservation	Resource Conservation Area	Open space, nature areas, wildlife areas, and resource-based recreation such as hunting	Single family dwellings
AR: Agricultural-Residential	Agricultural Preservation Area	Agriculture and single family dwellings	Veterinary clinics, kennels, and golf courses
WR: Waterfront Residential	Lakes Residential Area	Single family dwellings	Campgrounds and marinas
R-1: Low Density Residential	Suburban Residential Area	Single family dwellings	Golf courses, schools, religious institutions, and parks
R-2: Medium Density Residential	Suburban Residential Area	Single and two-family dwellings	Schools, religious institutions, and parks
R-MHC: Manufactured Housing Community	Suburban Residential Area	Manufactured housing communities	Day care facilities
R-MF: Multiple Family	Suburban Residential Area	Apartments, townhouses, and similar living arrangements.	Assisted living facilities, golf courses, and parks
C-1: Local Commercial	Mixed Use Corridors and Lakes Commercial Area	Retail, office and personal service uses catering to local needs	Kennels, taverns, and fast-food restaurants
C-2: General Commercial	Mixed Use Corridors	Uses that serve a more regional population or require facilities of greater size/scale, including retail, offices, personal services, trade showrooms, health clubs	Hotels, vehicle sales, taverns, fast-food restaurants, funeral homes, building materials sales, and mini-storage
I-1: Light Industrial	Mixed Use Corridors	Industrial uses of a "light" character such as small parts assembly, equipment repair, and information technologies	Somewhat higher impact uses such as lumber mills, metal plating, and commercial warehousing

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SILVER CREEK TOWNSHIP

Zoning Plan – Table 2

Site Development Standards Guidelines

Zoning District (example name)	Minimum Lot Area	Minimum Lot Width and Frontage	Maximum ² Building Heights	Minimum Yard Setback (each)		
				Front	Side	Rear
<u>OSP</u>: Open Space Preservation	10 acres ¹	330 ft.	35 ft.	30 ft.	20 ft.	30 ft.
<u>AR</u>: Agricultural-Residential	1 acre	200 ft.	35 ft.	50 ft.	30 ft.	30 ft.
<u>WR</u>: Waterfront Residential	12,000 sq. ft.	60 ft.	35 ft.	30 ft.	5 ft. to 10 ft.	8 ft. to 20 ft.
<u>R-1</u>: Low Density Residential	12,000 sq. ft.	75 ft.	35 ft.	30 ft.	10 ft.	30 ft.
<u>R-2</u>: Medium Density Residential	12,000 sq. ft.	75 ft.	35 ft.	30 ft.	10 ft.	50 ft.
<u>R-MHC</u>: Manufactured Housing Community	Conformance with Rules and Regulations of Manufactured Housing Commission					
<u>R-MF</u>: Multiple Family	1 acre	150 ft.	35 ft.	30 ft.	25 ft.	25 ft.
<u>C-1</u>: Local Commercial	Not Applicable	Not Applicable	35 ft.	30 ft.	15 ft.	25 ft.
<u>C-2</u>: General Commercial	1 acre	150 ft.	35 ft.	75 ft.	30 ft.	30 ft.
<u>I-1</u>: Light Industrial	2 acres	200 ft.	40 ft.	100 ft.	50 ft.	50 ft.

Footnotes:

1. Parcels not comprised entirely of wetlands may be as small as 1 acre provided a minimum of 1 acre of non-wetland building area is available, in which case a minimum width of 150' applies.
2. In addition to maximum building height limitations, maximum lot coverage by buildings are be approximately 20% – 30% in residential districts and 40% – 50% in commercial and industrial districts.

VOLINIA TOWNSHIP Future Land Use Plan

Agricultural Preservation Area

The Agricultural Preservation Area comprises the majority of the township's central region and extends to the northeast and southwest, and is nearly entirely farmland along with other open spaces and very dispersed residences. The intent of the Agricultural Preservation Area is to provide opportunities for and encourage long-term farming and the preservation of farmland resources. This Area is established in recognition of the importance of agriculture and the local farming industry and the presence of numerous factors that support its long-term agricultural value. The primary use of land is to be agriculture including residences associated with farm owners.

Dispersed Commercial and Industrial: It is recognized that there are some activities that can be generally described as commercial or industrial in character yet can be largely inconspicuous in agricultural and other rural areas. Pole barns and similar accessory buildings that may house such operations are common in the Volinia Township landscape. Such entrepreneurship can improve the economic stability of the township and its residents. This Plan supports such small-scale and appropriately managed light industrial and commercial activities in the Agricultural Preservation provided measures are in place that ensure such activities do not become a nuisance, eyesore, or undermine the intended character of the surrounding area or the township as a whole. Such zoning measures are to address limitations on building size, signage, lighting

and parking, significant separation distances between such activities (such as one-half mile or more), building styles of an agricultural or residential architectural theme, substantial building setbacks, and other standards to ensure compatibility with surrounding uses and the community's character as a whole. Such uses are to be comparatively low traffic generators and be compatible with on-site sewage disposal and potable water and available road infrastructure.

Rural Residential Area

The Rural Residential Area comprises the vast majority of the township not otherwise part of the Agricultural Preservation Area, and is most dominant in the township's northwest and southeast quarters. The Rural Residential Area includes extensive farm operations and an increased level of scattered residences. The Rural Residential Area is to provide opportunities for agricultural and rural residential lifestyles in areas where long term farming operations face greater challenges due to soil and topographic conditions. The intended low densities recognize the township's commitment to managing growth and providing cost effective public services, while also acknowledging the presence of a market for low-density rural home sites. The primary uses of land are to be limited to single family residences and agriculture. Secondary uses are to be limited to those that are uniquely compatible with and/or supportive of the character of the Area such as campgrounds and shooting preserves. Maximum development densities should generally not exceed one dwelling per approximately one acre. The Plan's support for appropriately managed light industrial and commercial activities in the Agricultural Preservation Area applies to the Rural Residential Area as well.

Lakes Residential / Settlement Areas

The Lakes Residential / Settlement Areas are comprised of the township's principal existing residential settlement areas including non-wetland areas around Finch, Cowham, Bunker, and Little Fish lakes. These Areas also include the villages of Volinia and Wakelee, and additional areas where new residential development of a similar character is considered most appropriate – particularly the upland areas extending away from Finch Lake in Section 12. The Lakes Residential / Settlement Areas are established in recognition of the existing settlement areas, including support for the protection of the desirability and stability of these neighborhoods, and to provide opportunities for additional residential development of a similar character than planned elsewhere in the township.

Primary uses are to be single family and two-family residences. Secondary uses are to be limited to alternative living arrangements such as townhouses, apartments, assisted living facilities, and similar

housing options, and for uses that directly support and enhance desirable residential areas such as schools, parks and religious institutions. Development densities are not to exceed two dwellings per acre except that greater densities may be reasonable in Section 12 as the planned primary growth area in the township and where public sewer exists. However, such increased densities should be subject to special review to determine if the proposal is appropriate on the particular site, taking into consideration such factors as compatibility with surrounding conditions, likely environmental impacts, adequacy of infrastructure and services to serve the development, and available design measures to minimize impacts upon existing neighborhoods.

Rural Commercial Areas

The Future Land Use Plan provides for the accommodation of limited commercial development in the township, and in a purposefully dispersed and controlled fashion. There are no locations in the township considered to be particularly appropriate as a commercial or "town center." The township's population itself is somewhat scattered and though there exists several "population centers," each of these areas include a comparatively small number of residences and an insufficient number to support a commercial center. Still, the township wants to provide some opportunities for commercial uses to address the needs of the local population in a convenient manner and in a manner sensitive to the surrounding rural character. The Future Land Use Plan establishes two means by which to do this, one of which is described under the Agricultural Preservation Area.

A second is the establishment of several Rural Commercial Areas – locations at important intersections that provide the access and visibility upon which traditional commercial uses are typically dependent, and near existing settlement areas to increase convenience and the viability of the businesses. Rural Commercial Areas are limited to the immediate intersection areas of:

Marcellus Highway/Gards Prairie Road
Marcellus Highway/Lawrence Road
Lawrence/Dutch Settlement Roads

In all locations, commercial uses are to be limited to that area within approximately 500' of the intersection. These Rural Commercial Areas are not intended to incrementally evolve into strip commercial corridors but, rather, be very compact with clear boundaries and identities. Rural Commercial uses are to be limited to those that address the day-to-day needs of the local population and seasonal visitors and tourists, including retail sales, offices, personal services, and eateries.

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Resource Conservation Area

The Resource Conservation Area is comprised principally of the township's wetlands and its river and stream corridors, along with the Fred Russ Forest facility. The Resource Conservation Area provides for the protection of these resources in recognition of the vital role these resources play including flood control, wildlife habitats, recreation, ground water recharge, and their contribution to the valued character of the community, and the extreme obstacles wetlands

present for development. The protection measures are to be principally through limitations on the use of and disturbance to such resources. Primary uses are to generally be limited to natural and conservation areas, wildlife protection areas, outdoor recreation, and agriculture. Uses within the Resource Conservation Area are to be subject to design measures to minimize negative environmental impacts including measures to address erosion and sedimentation, clearing, vegetative buffers, and filling.

VOLINIA TOWNSHIP Zoning Plan – Table 1

Overview of Recommended Zoning District Structure and Relation to Future Land Use Map

Zoning District (example names)	Primary Relationship to Future Land Use Map	Primary Intended District Uses	Examples of Secondary District Uses
RP: Resource Protection	Resource Conservation Area	Undisturbed Open space	Nature areas, wildlife areas, and resource-based recreation such as hunting
AP: Agricultural Production	Agricultural Preservation Area	Agriculture	Parks and resource protection areas, veterinary clinics, farm equipment sales, agricultural service facilities, and limited commercial/light industrial uses
AR: Agricultural Residential	Rural Residential Area	Agriculture and single family residences	Parks and resource protection areas, veterinary clinics, kennels, campgrounds, and agricultural service facilities, and limited commercial/light industrial uses
LR-1: Lake Residential	Lakes Residential Settlement Area	Single and two-family residences.	Camping and resort facilities
R-1: Low Density Residential	Lakes Residential Settlement Area	Single and two-family residences.	Schools, religious institutions, golf courses, and parks
R-2: Medium Density Residential	Lakes Residential Settlement Area	Single and two-family residences.	Schools, religious institutions, golf courses, and parks
R-MHC: Manufactured Housing Comm.	Lakes Residential Settlement Area	Manufactured housing communities.	Day care facilities
R-MF: Multiple Family	Lakes Residential Settlement Area	Apartments, townhouses, and similar living arrangements.	Day care facilities, golf courses, and assisted living
C-1: Local Commercial	Rural Commercial Areas	Retail, office and personal service uses catering to local needs.	service stations, and limited light industrial uses

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VOLINIA TOWNSHIP Zoning Plan – Table 1

Site Development Standards Guidelines

Zoning District (example name)	Minimum Lot Area	Minimum Lot Width and Frontage	Maximum ¹ Building Heights	Minimum Yard Setback (each)		
				Front	Side	Rear
<u>RP</u>: Resource Protection	10 – 20 acres	330 – 660 ft.	35 ft.	50 ft.	30 ft.	75 ft.
<u>AP</u>: Agricultural Production	10 acres	330 ft.	35 ft.	50 ft.	50 ft.	50 ft.
<u>AR</u>: Agricultural Residential	1 acre	160 ft.	35 ft.	75 ft.	20 ft.	75 ft.
<u>R-1</u>: Low Density Residential	20,000 sq. ft.	100 ft.	35 ft.	35 ft.	15 ft.	35 ft.
<u>R-2</u>: Medium Density Residential	10,000 sq. ft.	75 ft.	35 ft.	30 ft.	10 ft.	35 ft.
<u>LR-1</u>: Low Density Lake Residential	10,000 sq. ft.	75 ft.	35 ft.	20 ft.	15 ft.	25 ft.
<u>R-MHC</u>: Manufactured Housing Community	Conformance with Rules and Regulations of Manufactured Housing Commission					
<u>R-MF</u>: Multiple Family	1 acre	160 ft.	40 ft.	30 ft.	25 ft.	25 ft.
<u>C-1</u>: Local Commercial	1 acre	160 ft.	35 ft.	30 ft.	20 ft.	20 ft.

Footnotes:

1. In addition to maximum building height limitations, maximum lot coverage by buildings are be approximately 25% – 35% in residential districts and 40% – 50% in commercial districts.

WAYNE TOWNSHIP Future Land Use Plan

Agricultural Preservation Area

The Agricultural Preservation Area comprises the vast majority of the township and is nearly entirely farmland along with other open spaces and very dispersed residences. The intent of the Area is to provide opportunities for and encourage long-term farming (crop, forestry, dairying, etc.) and the preservation of farmland resources. This Area is established in recognition of the importance of agriculture and the local farming industry and the presence of numerous factors that support its long-term agricultural value. The primary use of land is to be agriculture including residences associated with farm operators and workers. New nonfarm-based residences are to be prohibited to minimize the loss of farmland and resulting conflicts with farm operations, and advance the township's commitment to managing growth, cost

effective public services, and limiting development to specific and compact portions of the community.

Rural Residential Area

The Rural Residential Area is comprised principally of small settlement areas of an overall rural character, including some farm operations. The Rural Residential Area is to provide opportunities for agricultural and rural residential lifestyles in areas where long term farming operations are not anticipated due to soil, land division and/or other conditions. The intended low densities recognize the township's commitment to managing growth, providing cost effective public services, and limiting development to specific and compact portions of the community, while also acknowledging the presence of a market for low-density rural home sites. The primary uses of are to be limited to single family residences and agriculture.

Maximum development densities should generally not exceed one dwelling per approximately two acres.

Lakes Residential / Settlement Areas

The Lakes Residential/Settlement Areas are comprised of the principal existing settlement areas including the Twin Lakes and Glenwood area, and additional areas where new residential development of a similar character is considered most appropriate including along segments of Marcellus Highway, Twin Lakes Road and Hatch Street. Lakes Residential/Settlement Areas are established in recognition of the existing settlement areas of the township, including support for the protection of the desirability and stability of these neighborhoods, and to provide opportunities for additional residential development of a similar character.

Primary uses are to generally be limited to single family and two-family residences. Secondary uses are to be limited to alternative living arrangements such as townhouses, assisted living facilities, and similar housing options, and for uses that directly support and enhance desirable residential areas such as schools and religious institutions. Development densities greater than two dwellings per acre may be reasonable but only after special review to determine if such proposal is appropriate on the particular site, taking into consideration such factors as compatibility with surrounding conditions, likely environmental impacts, adequacy of infrastructure and services to serve the development, and available design measures to minimize impacts upon existing neighborhoods.

M-51 Mixed Use Corridors

The M-51 Mixed Use Corridors extend north from Dowagiac for approximately one-half mile and from Dewey Lake Street south to the Dowagiac River wetlands. Both of these segments are characterized principally by commercial and light industrial along with open spaces, farmland and scattered residences, and are served by sanitary sewer. The M-51 Mixed Use Corridors are intended to accommodate primarily commercial uses and light industry. The M-51 Mixed Use Corridors are established in recognition of the commercial and industrial uses along these segments of M-51, which are afforded excellent access and visibility, and to provide opportunities for additional commercial services and industry.

Primary commercial uses are to generally be limited to uses that address day-to-day needs of the local population, seasonal visitors and highway travelers, including retail sales, offices, personal services, and eateries. Secondary commercial uses should be limited to those that provide additional benefits and which may cater to a more regional population and/or are of a size, scale or intensity (including “big box” developments) that increases the potential for negative impacts. Such uses are to be subject to special review

proceedings, including a public hearing. Industrial uses should generally be limited to those of a low intensive character such as assembly of pre-manufactured products and communication and information technologies.

In the absence of a market for commercial or industrial uses within these corridors, and where wetlands are not present, these corridors may be appropriate for residential growth of a character described under “Suburban/Lakes Residential Areas.” However, prospective residents should be aware that neighboring parcels and other portions of these corridors may transition into commercial and/or industrial uses.

Secondary Commercial Areas

Though not specifically delineated on the Future Land Use Map, there are several small locations in the township that considered appropriate for locally-oriented commercial uses. The Glenwood settlement area has become less populated over the years and the previous businesses in the immediate area have similarly declined. Still, the Plan supports the availability of locally-oriented business in Glenwood where such activities can be accommodated in a manner sensitive to the surrounding neighboring character and where design measures are incorporated to substantively minimize potential impacts upon neighboring residential properties. The northeast corner of the Marcellus Highway/Twin Lakes Road intersection is home to a small convenience sales business that provides close-to-home goods to the highway traveler and the immediate area including Twin Lakes. The Plan supports the continuation of the commercial use of this parcel and any future use on the same parcel should be of a similar local character. The Plan does not support the commercialization of the balance of the intersection.

Resource Conservation Area

The Resource Conservation Area is comprised principally of the township’s wetlands and river and stream corridors. The Resource Conservation Area provides for the protection of the township surface water resources and wetlands, in recognition of the vital role these resources play including flood control, wildlife habitats, recreation, ground water recharge, and their contribution to the valued rural character of the community. Primary uses are to generally be limited to natural and conservation areas, wildlife protection areas, outdoor recreation, agriculture, and single family residences. Maximum development densities in the absence of wetlands should not exceed one dwelling per one-half acre. Maximum densities where a parcel is comprised wholly of wetlands should not exceed one dwelling per 20 acres.

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WAYNE TOWNSHIP Zoning Plan – Table 1

Overview of Recommended Zoning District Structure and Relation to Future Land Use Map

Zoning District (example names)	Primary Relationship to Future Land Use Map	Primary Intended District Uses	Examples of Secondary District Uses
<u>OSR</u> Open Space - Recreation	Resource Conservation Area	Open space, nature areas, wildlife areas, and resource-based recreation such as hunting	Single family dwellings
<u>A-1</u> Prime Agricultural	Agricultural Preservation Area	Agriculture and farm dwellings	Veterinary clinics, kennels, and livestock sales
<u>AR</u> Agricultural Residential	Rural Residential Area	Agriculture and single family residences	Veterinary clinics, kennels, and livestock sales
<u>R-1</u> Low Density Residential	Suburban/Lakes Residential Area	Single family residences.	Duplexes, schools, religious institutions, and parks
<u>R-2</u> Medium Density Residential	Suburban/Lakes Residential Area	Single family residences.	Duplexes, schools, religious institutions, and parks
<u>LR-1</u> Low Density Lake Residential	Suburban/Lakes Residential Area	Single family residences.	Duplexes, schools, religious institutions, and parks
<u>LR-2</u> Medium Density Lake Residential	Suburban/Lakes Residential Area	Single family residences.	Duplexes, schools, religious institutions, and parks
<u>R-MHC</u> Manufactured Housing Comm.	Suburban/Lakes Residential Area	Manufactured housing communities.	Day care facilities
<u>R-MF</u> Multiple Family	Suburban/Lakes Residential Area	Apartments, townhouses, and similar living arrangements.	Day care facilities, golf courses, and assisted living
<u>C-1</u> Local Commercial	Commercial Areas and Mixed Use Corridors	Retail, office and personal service uses catering to local needs.	Taverns, fast-food restaurants, and funeral homes
<u>C-2</u> General Commercial	Secondary Commercial Areas and Mixed Use Corridors	Uses that serve a more regional population or require facilities of greater size/scale, including retail, offices, personal services, trade showrooms, and health clubs	Taverns, fast-food restaurants, funeral homes, hotels, auto sales, building materials sales, and mini-storage
<u>I-1</u> Light Industrial	Secondary Commercial Areas and Mixed Use Corridors	Industrial uses of a "light" character such as small parts assembly, equipment repair, and information technologies	Somewhat higher impact uses such as freight terminals and salvage facilities
<u>I-2</u> Heavy Industrial	Mixed Use Corridors	Industrial uses of a "heavy" character such as food processing and manufacturing with raw materials	Somewhat higher impact uses such as scrap processing

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WAYNE TOWNSHIP Zoning Plan – Table 1

Site Development Standards Guidelines

Zoning District (example name)	Minimum Lot Area	Minimum Lot Width and Frontage	Maximum Building Heights ²	Minimum Yard Setback (each)		
				Front	Side	Rear
<u>OSR</u>: Open Space/Recreation	20 acres ¹	660 ft.	35 ft.	30 ft.	20 ft.	30 ft.
<u>A-1</u>: Prime Agricultural	2 acres	200 ft.	35 ft.	50 ft.	30 ft.	50 ft.
<u>AR</u>: Agricultural Residential	2 acres	165 ft.	35 ft.	40 ft.	30 ft.	50 ft.
<u>R-1</u>: Low Density Residential	12,000 sq. ft.	100 ft.	35 ft.	30 ft.	15 ft.	25 ft.
<u>R-2</u>: Medium Density Residential	9,000 sq. ft.	75 ft.	35 ft.	30 ft.	15 ft.	25 ft.
<u>LR-1</u>: Low Density Lake Residential	10,000 sq. ft.	75 ft.	35 ft.	20 ft.	15 ft.	25 ft.
<u>LR-2</u>: Medium Density Lake Residential	5,000 sq. ft.	50 ft.	35 ft.	20 ft.	10 ft.	20 ft.
<u>R-MHC</u>: Manufactured Housing Community	Conformance with Rules and Regulations of Manufactured Housing Commission					
<u>R-MF</u>: Multiple Family	1 acre	150 ft.	40 ft.	30 ft.	25 ft.	25 ft.
<u>C-1</u>: Local Commercial	Not Applicable	Not Applicable	40 ft.	30 ft.	15 ft.	25 ft.
<u>C-2</u>: General Commercial	1 acre	200 ft.	40 ft.	50 ft.	25 ft.	25 ft.
<u>I-1</u>: Light Industrial	Not Applicable	Not Applicable	35 ft.	50 ft.	25 ft.	25 ft.
<u>I-2</u>: Heavy Industrial	Not Applicable	Not Applicable	40 ft.	50 ft.	40 ft.	50 ft.

Footnotes:

1. Parcels not comprised entirely of wetlands may be as small as 20,000 sq. ft. provided a minimum of 20,000 sq. ft. of non-wetland building area is available, in which case a minimum width of 165' applies.
2. In addition to maximum building height limitations, maximum lot coverage by buildings are be approximately 25% – 35% in residential districts and 40% – 50% in commercial and industrial districts.

Chapter Five

Coordinated Public Services and Facilities

Introduction

Chapter Four described the planned pattern of land use throughout the county and the Local Participating Municipalities. Chapter Five presents initiatives to coordinate public services and facilities with the planned pattern of land use, and focuses specifically on:

- Circulation
- Sewage disposal and potable water
- Emergency services
- Recreation

The character and feasibility of land use and development is influenced by the extent to which public services are available. In addition, the availability of public facilities and services to people and property directly impacts public health, safety and welfare and, as a result, quality of life.

An important principle of this Plan is that growth and development is to be coordinated with public facilities and services.

On the other hand, public service improvements and the increased development that may result from such improvements should not jeopardize interests in managing growth and development. Thus, it is very important that future public service improvements be coordinated with the planned pattern of future land use.

Circulation / Complete Streets

As the county and its local communities grow, demands on the road network will increase, particularly in localized areas. This increased traffic may lessen the level of service along road segments. Conversely, road improvements may well attract new development which, in turn, will create additional demands.

The daily pattern of nearly everyone's lives demand the ability to get from one location to another, preferably in the shortest time possible. Whether it be for employment, recreation, schooling, or shopping, a

comprehensive transportation network for vehicles, pedestrians, and bicyclists has become one of the most fundamental necessities in our society today. In Cass County, where so many residents work elsewhere, the importance of personal mobility is exaggerated.

Safe pedestrian and non-motorized travel has received greater and greater focus within the planning and transportation arenas, on local, regional, state and federal levels. The provision of opportunities for safe and comprehensive pedestrian and other non-motorized travel has been found to encourage health in individuals, provide alternative means of recreation, and lessen congestion, air pollution, consumption of fossil fuels and cost of living. The importance of safe and comprehensive pedestrian and non-motorized travel led the Michigan Legislature to amend the Planning Enabling Act in 2010 to require a "complete streets" element in a master plan.

The most fundamental challenge is maintaining the road network that is already in place and where necessary, expanding the network to improve traffic flow, safety and efficiency for all users.

"Complete streets" generally refers to the design of road corridors that take into account the mobility needs of all potential users including pedestrians, bicyclists, motorists, and public transportation users. The "complete streets" program emphasizes safety along roads for all users including all age groups. While recognizing that there is no single "complete streets" design solution that applies to all roads in all communities, the program emphasizes the need for new roads to be designed, and existing roads be improved, to facilitate their safe and efficient use by all prospective users within the context of the particular community's needs and character.

Implementation of a "complete streets" program in a rural area is different than that of an urban center. While an urban community may pursue sidewalks, bike lanes or paved shoulders, bus lanes, convenient public transportation stops, median islands, frequent and well marked cross-walks, and other measures,

rural communities typically have fewer options. However, even in rural communities, the feasibility and importance of implementing a wider scope of “complete streets” measures increases in the community’s planned residential settlement areas and commercial centers.

The circulation system in Cass County falls under multiple jurisdictions. MDOT has jurisdiction over the county’s state highways. Dowagiac and the county’s four villages have jurisdiction of their public road networks. The Cass County Road Commission has jurisdiction over the balance and vast majority of public road miles in the county.

Initiatives:

- 1) Greatest priority for road maintenance and improvements should be placed on those primary road segments serving planned residential, commercial and industrial growth areas.
- 2) Evaluate all proposed road construction for local and regional impacts on business patterns and activities, traffic flow, congestion, public safety, and land use.
- 3) Coordinate road improvements with other local and regional road improvements to address traffic movement in a unified and comprehensive manner.
- 4) Adopt a context-sensitive “complete streets” policy addressing the inclusion of complete streets measures in association with new road projects and as part of incremental improvements to existing road segments.
- 5) Evaluate development plans within the context of “complete streets” to ensure all users of the developments are afforded opportunities for safe and efficient circulation, including neighborhoods and commercial and industrial areas.
- 6) Continually explore opportunities for public transportation where economically feasible, and in coordination with planned growth areas.
- 7) Continually explore alternative funding opportunities to maximize the money available to address circulation and mobility needs.
- 8) Continually communication and coordinate with regional entities including road commissions, the Southwest Regional Planning Commission, and the Niles-Buchanan-Cass Area Transportation Study, to pursue transportation improvements in a unified and cost-effective manner.

Sewage Disposal and Potable Water

The majority of residents of the county rely on septic systems for sewage disposal and private on-site potable water wells. The exceptions are generally limited to Dowagiac and the four villages and immediately surrounding areas, and around some of the more outlying urbanized lake areas in nearly half of the county’s townships.

A county-wide sewer study was completed in 1999 and this study presented recommendations regarding how sewer service could most appropriately be expanded to address local needs. The county’s population has likely grown by less than 5,000 persons since the study was completed. The majority of local communities in the county have either updated or adopted new Master Plans including the development of this county master plan, and the policies of the plans typically address where planned growth areas are to be located and implications for sewage disposal and potable water services.

Public sewer and water service can contribute to a more compact development pattern or, if poorly planned, to greater sprawl and consumption of natural resources.

Improperly operating septic systems can contaminate potable groundwater resources, lakes and streams. On the other hand, the unnecessary introduction of public sewer and/or water services can lead to unintended consequences. Development pressures frequently coincide with the availability of public sewer and/or water improvements.

Initiatives:

- 1) Update the 1999 Water/Sewer Master Plan to document current public sewer conditions, available capacities and projected demands, and recommendations for improvements where deficiencies may be identified.
- 2) Discourage public sewer or water service improvements that are not necessary to maintain the public health, safety and welfare or facilitate development contrary to designated growth areas.
- 3) Evaluate decisions to introduce or expand public sewer or water service according to all available options, including services provided by cooperative agreements with neighboring municipalities and regional entities.
- 4) Phase public sewer and water service improvements so that an overly large geographic area is not developed at a rate beyond the

community's ability to effectively manage growth and development.

- 5) Establish wellhead protection areas in association with public water systems including measures to prohibit unnecessary threats to groundwater contamination.

Storm Water Management

Storm water management aims to minimize flood conditions, and control the quality and quantity of runoff that is discharged into the watershed system (streams, rivers, wetlands, lakes, etc.) from a development site.

As buildings, parking lots and other impermeable surfaces increase, the quantity of storm water runoff increases. The vegetated landscape that previously absorbed and slowed much of the water associated with rainfall is replaced by impervious surfaces. Unless specific preventive measures are taken, this condition encourages flooding, soil erosion, and sedimentation and pollution of area water resources. The county's abundant water resources, including its wetlands, lakes, rivers and streams, are vulnerable to degradation.

Green infrastructure, the act of accommodating storm water management through minimal disturbances to on-site natural resources and drainage systems, is a critical tool in maintaining environmental integrity and community character.

Initiatives:

- 1) Ensure increased runoff that may occur as a result of development is appropriately managed to avoid placing excess demand on the capacity of the storm water system into which the runoff is discharged.
- 2) Increased runoff that may occur as a result of development will be appropriately managed to ensure that the quality of the runoff discharged does not undermine the environmental integrity of surface and ground waters including wellhead protection areas.
- 3) Storm water management measures should be based upon "green infrastructure" – planned networks of natural lands, functioning landscapes and other open spaces that minimize alterations to the natural landscape and lessen the reliance on storm sewer and similar "grey" infrastructure.
- 4) Ensure site-specific development practices that maintain or enhance the level of service provided by local storm water management systems.

- 5) Review land use and construction practices for compliance with all local, county, state, and federal regulations regarding storm water management and soil erosion, including the regulations of the Cass County Drain Commissioner.

- 6) Review development proposals within the context of their impact on nearby water courses to ensure discharge practices do not undermine the environmental integrity of these resources.

Though flooding, soil erosion, sedimentation and pollution may originate from site-specific circumstances, their impact can extend to adjacent properties and more regional areas including other downstream communities.

Emergency Services

Within the context of this discussion, emergency services refer to police and fire protection services including ambulatory services.

The Michigan State Police provide emergency services along state highways and in other limited circumstances on an as-needed basis. Cass County's participation in the provision of emergency services is comprised primarily of the County Sheriff's Department including road patrols, 911 dispatch, and management of jail facilities. The majority of the townships in the county rely on the department for police protection. Dowagiac and each of the four villages operate their own police and fire departments or are part of joint authorities for the same. The Tribal Police Department of the Pokagon Band of Potawatomi Indians also provides emergency services in the county. Its presence is most visible in the western half of the county and particularly in the Pokagon Township area. As community growth and land development increases, so does the demand for emergency services.

There are no widely accepted standards for police protection levels – what is adequate is largely a function of local public perception. Commonly referenced standards regarding fire protection suggest a maximum service radius from a fire station in low density residential areas of approximately three miles, and an approximately three-quarters to two mile radial service area in commercial, industrial, and high density residential areas.

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Initiatives:

- 1) Encourage the provision of fire protection infrastructure (wells, water lines, etc.) for all new developments that are of a size and density that on-site access to water is considered critical.
- 2) Continually monitor police and fire protection needs and service to minimize service deficiencies and explore options for improved service levels including joint services with neighboring and regional entities.
- 3) Place priority on those emergency service improvements that will impact the greatest number of recipients in the most cost-effective manner – with existing population centers being the principal target areas.
- 4) Encourage the formation and expansion of “neighborhood watch” programs.

Recreation

Like many other public services, demands for recreation facilities and opportunities will likely grow as the county and its local communities grow. Conversely, the availability of potential park sites will diminish as open spaces may be converted to alternative uses.

Cass County operates eight park sites. Some of the local communities maintain recreation facilities as well, while others are without locally-owned and maintained recreation sites.

The importance of locally available recreation opportunities has been widely recognized for its important health benefits, the enhancement of leisure time, and potential economic impacts. The type and accessibility of nearby recreational opportunities can impact the well being of local residents of all ages. “Accessibility” includes the convenience, ease and safety of getting to a park facility and the ease of moving comfortably throughout a park site by all users, including all age groups and persons of all physical abilities.

Cass County recently prepared a MDNR-approved recreation plan which enables the county to compete for state and federal recreation grants to acquire and develop park land for recreation purposes. Some local communities in the county have done the same. These plans typically establish recreation goals and objectives and a five-year action plan in pursuit of the goals.

County Initiatives:

- 1) Maintain a current recreation plan that focuses on providing resource-based recreation opportunities catering to the unmet recreation needs of the county’s population and the enhancement of existing park facilities.
- 2) Aggressively pursue the implementation of the “action program” of the recreation plan.
- 3) Provide assistance to local communities seeking to prepare and/or update local recreation plans.
- 4) Encourage the coordination of recreation plans among neighboring communities, and joint recreation plans that strive to deliver recreation opportunities in a more unified regional effort.

Local Participating Municipality Initiatives:

- 1) Regularly monitor the extent to which area residents are satisfied with the scope and accessibility of recreation opportunities.
- 2) Where there is a demonstrated demand for recreation improvements, and as financial resources may become available, strive to provide recreation facilities in a manner that recognizes the particular needs of local residents.
- 3) In the case where the community does not have an official MDNR-approved five-year recreation plan, and should sufficient public sentiment warrant, explore the development of such a plan. In the case where the community has such a recreation plan, maintain a current action plan and aggressively pursue implementation.
- 4) Encourage the provision of open space and recreation areas within future residential development projects such as platted and condominium subdivisions, to facilitate close-to-home recreation opportunities.
- 5) Explore addressing recreation needs of local residents through cooperative regional efforts.

Chapter Six

IMPLEMENTATION STRATEGIES

Introduction

This Master Plan establishes a strategy for growth, development and preservation for Cass County as a whole and, more specifically, for the Villages of Edwardsburg and Vandalia and the Townships of Pokagon, Silver Creek, Volinia and Wayne. The Plan is comprised of goals and objectives and graphic and narrative policies intended to shape reasonable, realistic decisions. It establishes policies and recommendations for the proper use of land and the provision of public services and facilities. The Plan is intended to be used by regional, county and local officials, by the private sector including those considering private sector developments, and by all residents and entrepreneurs interested in the future.

As a policy document, this Plan's effectiveness is directly tied to the implementation of its policies through specific tools and actions.

The completion of the Plan is one part of the planning process. Realization or implementation of the goals, objectives and policies of the Plan can only be achieved by specific actions, over an extended period of time, and through the cooperative efforts of both the public and private sectors.

The purpose of this Chapter is to present some important strategies to effectuate the goals, objectives and policies of the Master Plan.

Public Support, Communication and Community Involvement

Citizen participation and understanding of the general planning process and the goals, objectives and policies of the Plan are critical to the success of Cass County's planning program and those of the Villages of Edwardsburg and Vandalia and the Townships of Pokagon, Silver Creek, Volinia and Wayne. Understanding and support of the Plan by local citizens can greatly enhance its implementation. This enhancement may be found in citizen support for modifications to the delivery of public services, public facility improvements, bond proposals, special

assessments, zoning decisions, and development proposals.

In order to organize public support most effectively, the county and the six Local Participating Municipalities must emphasize the necessity of, and reasons for long-range planning and the development of the Master Plan, and encourage citizen participation in on-going planning efforts.

Specific actions that can be undertaken to encourage public understanding and support for county and local planning efforts, and the continued communication with and involvement of the citizenry, are:

- 1) Ensure that copies of the Master Plan are readily available at county offices and village and township halls.
- 2) Post the Future Land Use Map of the Master Plan in county offices and village and township halls.
- 3) Establish and/or update county and local municipal web sites and post on the sites the Master Plan and current local and county events and activities pertaining to planning and zoning matters.
- 4) Through public notices, newsletters, postings in public buildings, and other means, apprise residents and the business community of county and local planning efforts and of meetings that will address development and public service improvement proposals as the projects move through each stage of review and deliberation.
- 5) Periodically hold special meetings for the specific purpose of discussing county and local planning efforts and providing residents, business owners and entrepreneurs with the opportunity to share concerns and suggestions.
- 6) Encourage Neighborhood Watch and similar programs to promote cooperation and communication.

Plan-Based Decision Making

This Master plan establishes goals, objectives and policies focusing on land use in addition to public services and facilities. The goals, objectives and policies should be referred to on a regular basis as land use and public services decisions are deliberated. Examples of the bearing of the Master Plan's goals, objectives and policies on decision making include:

- The planning, delivery and improvement of public services by the many county and local municipal officials and agencies dedicated to social and other public services, including within the context of lessening hindrances to and maximizing economic development efforts, social equality, resource protection and cost-effective programming.
- Capital improvements programming (see this page for further discussion on this matter).
- The review by local officials of site plans, special land use applications, and rezoning petitions.
- The Cass County Planning Commission's review of local master plans and zoning ordinances, as required under Sec. 41 of the Planning Enabling Act and Sec. 307 of the Zoning Enabling Act.

Copies of the Master Plan should be provided to all county and local municipal departments in an effort to encourage the blending of the Plan's goals, objectives and policies with the department's mission.

Spearheading the Plan's Objectives

This Plan's objectives present general strategies for implementing the Plan's goals and objectives. Implementation of the goals and objectives will be greatly furthered by officials coming together through workshops or other focused meetings to identify:

- How can each objective can be applied in day-to-day practice?
- Which official(s) or body(s) is most appropriate to explore and apply each objective?
- What are appropriate time frames for addressing each objective, recognizing that certain objectives may be more pressing than others?

Capital Improvements Programming

The use of capital improvements programming can be an effective tool for implementing the Master Plan and ensuring the orderly programming of public improvements. In its basic form, a Capital Improvements Program (CIP) is a complete list of all proposed public improvements planned for a six year period (the time span may vary), including costs, sources of funding, location, and priority. It is a schedule for implementing public capital improvements that acknowledges current and anticipated demands, and recognizes present and potential financial resources available to the community.

The CIP is not intended to encourage the spending of additional public monies, but is simply a means by which an impartial evaluation of needs may be made and a plan of action established.

The CIP outlines the projects that will replace or improve existing facilities, or that will be necessary to serve current and projected development. Advanced planning for public works through the use of a CIP ensures more effective and economical capital expenditures, as well as the provision of public works in a timely manner. Few communities are fortunate enough to have available at any given time sufficient revenues to satisfy all demands for new or improved public facilities and services. Consequently, most are faced with the necessity of determining the relative priority of specific projects and establishing a program schedule for their initiation and completion.

The importance of a CIP is illustrated by the fact that Sec. 65 of the Planning Enabling Act requires that a municipality prepare an annual six-year capital improvements program if the municipality owns or operates a water supply or sewage disposal system.

As the county and its local municipalities grow and increased demands for public services and infrastructure improvements surface, the importance and value of comprehensive capital improvement programs will similarly grow. Even rural communities can greatly benefit by a program of evaluating needs and charting a plan of action based on existing and projected financial resources. The Board of Commissioners is currently the designated preparer of the county's CIP.

Zoning Ordinances

A zoning ordinance is the primary tool for implementing a Master Plan's land use-based goals, objectives and policies. A zoning ordinance regulates the use of land, divides a community into districts, and identifies the land uses permitted in each district. Each district typically prescribes minimum standards regarding lot area, lot width, and building setbacks.

Since 2006, zoning ordinances for Michigan communities are adopted under the authority of the Michigan Zoning Enabling Act (MZEA), P.A. 110 of 2006. The purpose of zoning, according to the Act, is to (in part): *"regulate the use of land and structures; to meet the needs of the state's citizens for food, fiber, energy, and other natural resources, places of residence, recreation, industry, trade, service, and other uses of land; to insure that use of the land shall be situated in appropriate locations and relationships; to limit the overcrowding of land and congestion of population, transportation systems, and other public facilities."*

Cass County does not exercise zoning authority. Each of the county's 20 local municipalities has adopted local zoning ordinances that they are responsible for administering.

Zone Plan: The MZEA requires that a municipality that exercises local zoning authority and adopts a master plan must include in the plan a "zone plan." The zone plan must, in part, present an explanation of how the land use categories on the future land use map relate to the districts of the zoning ordinance. Chapter Four of this Master Plan presents tables for each of the six Local Participating Municipalities addressing Zone Plan matters – particularly in regard to guidelines for the presentation of zoning districts to implement the Future Land Use Plan and Map, and guidelines for basic site development standards for the zoning districts.

In addition to the review of local zoning programs within the context of the tables presented in Chapter Four and making appropriate ordinance updates, each of the Local Participating Municipalities should review their existing zoning programs to ensure their programs address critical zoning ordinance components including:

a) **Procedural Matters/Plan Review:** Zoning provisions should be reviewed to ensure they include clear and comprehensive step-by-step procedures addressing zoning permit application requirements, review procedures and approval standards; application procedures and approval

standards for ordinance amendments including rezonings; application procedures and approval standards for matters before the Zoning Board of Appeals such as variance requests and appeals of administrative decisions; and violation and enforcement procedures. The zoning permit application procedures should include clear requirements for the submittal of a plot plan or site plan illustrating existing site features (including environmental features) and proposed alterations including such matters as clearing, grading, storm water management, buildings, parking, screening, lighting, access management, and vehicular/pedestrian circulation.

- b) **District Provisions/Special Land Uses:** Zoning provisions should include a clear and comprehensive presentation of zoning districts including the purpose, authorized uses, and site development standards for each district. To this end, the districts should differentiate between uses authorized as "by right" versus "special land uses." "By right" uses are those uses that are the primary uses and structures specified for which a particular district has been established, such as a dwelling in a residential district. "Special land uses" are uses that are generally accepted as reasonably compatible with the principal uses in the district but are more marginal in character and more likely to present potential injurious effects upon the principal uses or the community as a whole. Special land uses are typically subject to greater scrutiny and a public hearing.
- c) **Site Development Standards:** In addition to the standards presented in the Zoning Ordinance for each district, such as minimum lot area, width and setbacks, the Ordinance should be reviewed to ensure it presents clear and appropriate standards addressing more general fundamental site development issues such as:
 1. proper access to ensure public safety and welfare including access management along thoroughfares, accessibility to property for general and emergency vehicles, and proper design and maintenance of private roads.
 2. off-street parking and loading to ensure adequate facilities are provided on a development site and are of adequate design to encourage safe and efficient circulation.
 3. landscaping and screening provisions intended to ensure new development (commercial, industrial, institutional, etc.) is compatible with surrounding conditions and supportive of the desired character of the community.
 4. sign regulations to ensure local signage does not contribute to traffic safety hazards, visual

clutter, confusion for vehicle drivers, visual blight, and decreased property values.

5. environmental safeguard provisions to ensure land uses and land development minimizes disturbances to natural resources including standards addressing sewage disposal, grading, impervious surfaces, natural features setbacks and storm water management.
- d) **Nonconformities:** Zoning provisions should address lots, uses and structures that are nonconforming due to changes to the zoning ordinance, and the extent to which such lots, uses and structures can be replaced, expanded, enlarged, or otherwise altered.
- e) **Site Condominium Regulations:** Zoning provisions should address the regulation of site condominiums to ensure such forms of development undergo the same level of review as more traditional subdivision plats.
- f) **Farmland, Open Space and Natural Resources Preservation:** See “Zoning Options for Farmland, Open Space and Natural Resources Preservation.”
- g) **Compliance with Current Law:** A Zoning Ordinance must comply with current law to ensure its validity and the ability of officials to enforce the Ordinance. All Michigan zoning enabling acts were repealed in 2006 and replaced by the Zoning Enabling Act (Public Act 110, as amended). Zoning regulations should be continually updated to address any subsequent changes to the Act or other pertinent laws.
- h) **User Friendly Document:** One of the most critical components of an effective zoning ordinance is that it be as user friendly as reasonably possible. A zoning ordinance can be a complex tool by nature. It must address a very broad scope of activities and specify procedures, standards, definitions, and more. The ability to minimize confusion and frustration among users of the ordinance, including officials, applicants, and the general public, and ensure fair, objective and consistent administration and proper enforcement, can be greatly enhanced as the document’s user friendliness increases. User friendliness can be exhibited on various levels including overall organization and order and division of articles, page formatting, use of tables, cross-referencing, and clear and simple wording of provisions.

The ultimate effectiveness of a zoning ordinance in implementing a master plan is dependent, in part, on the overall quality of ordinance administration and enforcement. If administrative procedures are lax, or if enforcement is handled in an inconsistent, sporadic manner, the result will be unsatisfactory. Local

planning commissions, legislative bodies and staff are responsible for carrying out zoning/development related functions including the review of development plans and site inspections. These functions can require special expertise and a substantial investment of time. Adequate staff and/or outside assistance are necessary to ensure that these essential day-to-day functions are met and appropriate development is facilitated.

Zoning Options for Farmland, Open Space and Natural Resources Preservation:

Farmland and natural resources preservation is an important theme of this Master Plan. Options for the pursuit of these goals are numerous. Some of the most effective zoning tools are summarized below:

Purchase of Development Rights (PDR): Purchase of Development Rights (PDR) is a land protection tool that pays landowners to protect their farmland from development. PDR is a voluntary and non-regulatory program through which a government agency, or private nonprofit organization, buys development rights from landowners in exchange for limiting development on the land in the future. This limitation is typically in the form of a conservation easement. The land cannot be developed for the term of the easement (usually, conservation easements are permanent). The buyer of the development rights typically pays the landowner the difference between the land's value as open space/farmland and its development value (its value without the development restrictions). PDR can be financially advantageous to the agricultural landowner since good farmland, which is typically cleared, well-drained, and relatively flat, is often highly valued for its development potential. Advantages of PDR programs include the opportunity for landowners to realize the development value of their land without having to actually develop it, and such a program enables communities to target areas to be preserved in perpetuity for farming or other open space. A disadvantage may arise if financing the cost of the development rights purchases requires public support and such support is not strong.

Transfer of Development Rights (TDR): Transfer of Development Rights (TDR) programs allow increased development in areas that a community has designated for development in return for preservation of areas a community wants to protect. TDR is often used for agricultural and/or open space protection, although it can be used to protect any important resource. When the development rights are transferred from the "sending" property, the sending property is then restricted to agricultural or conservation use by a conservation easement, and the "receiving" land can be developed at a greater

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density than would typically be allowed under the community's zoning ordinance.

Specialized Agricultural District Provisions: Ensuring the preservation of farmland resources on a long term basis requires, in part, significantly limiting residential encroachment in planned agricultural areas. Agricultural district provisions can be crafted to address this goal. Some of the more traditional and aggressive farmland preservation regulatory concepts include:

Exclusive Agricultural Zoning, which prohibits non-farm dwellings in the district.

Quarter-Quarter Zoning, which permits 1 dwelling per 40 acres (1/4 of 1/4 of a 640-acre section).

Sliding Scale Zoning, which can be generally based on Quarter-Quarter Zoning but places incrementally greater restrictions on the permissible number of dwellings as the farm parcel acreage increases.

Overlay Zones: An overlay zone in a Zoning Ordinance is a separate district that "lies" upon one or more other districts of the Zoning Ordinance, or parts of other districts, and provides an additional layer of regulation. This additional layer of regulation is typically established to address a special condition or situation that may apply to the districts below the overlay zone. For example, overlay zones are sometimes used to regulate development in sensitive environmental areas including floodplains, stream corridors, steep slopes and wooded areas. Overlay zoning can be an effective tool for protecting specific resources from development pressures. However, such regulations increase the complexity of zoning administration, and should be considered primarily in the case where the issue(s) of concern cannot be adequately addressed by the underlying district(s).

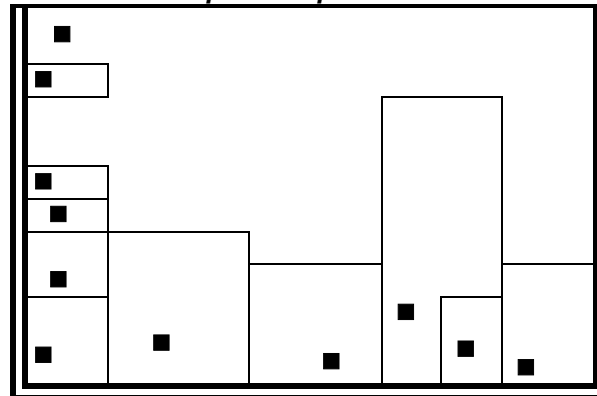
Clustering: As a tool to facilitate the conservation of natural resources, this Plan supports what are commonly referred to as "clustering" in association with platted subdivisions, condominium subdivisions, and similar neighborhood developments. The development option is a beneficial alternative to residential development than that frequently associated with large lot "rural sprawl," which consumes open space and creates lots that are too small for farming or meaningful habitat protection.

This form of development provides for the clustering of smaller lots than what is normally required, on only a portion of the development parcel, so that the balance of the parcel can be retained as open space and for the preservation of important environmental resources. As much as 50% or more of a site, and preferably the most environmentally significant, may

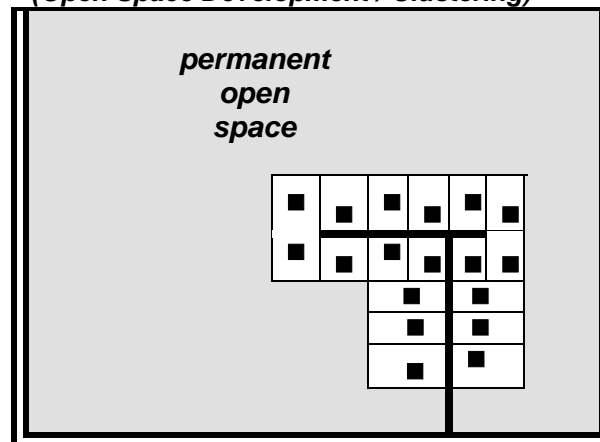
be preserved in its existing natural state, with individual lots occupying the remaining acreage. These "open space" areas can be preserved by the use of conservation easements, deed restrictions, or similar tools. A critical component of clustering should be the inclusion of new interior roads to serve the new lots, rather than stripping new dwellings along existing road frontages.

More traditional strip residential development along the township's major roads is illustrated in Example A below. Example B, illustrating an open space development, improves public safety along the road, and more effectively preserves the existing character of the community including its open spaces and environmental resources and habitats. Clustering can also save infrastructure costs by reducing the length of roads and utility lines.

Example A
Strip Development



Example B
(Open Space Development / Clustering)



Sec. 506 of the MZEA requires that this development option be made available under specific circumstances and conditions. Zoning provisions should be reviewed to ensure compliance with Sec. 506 and whether opportunities may be present to

simplify provisions, make this development option more appealing through incentives and/or user-friendly provisions, and minimize application burdens on the applicant.

Planned Unit Developments (PUDs): “Planned unit development” provisions in a Zoning Ordinance typically permit a more flexible form of development that normally permitted by the district in which the site is located or the other districts established in the Ordinance, and can enhance efforts to preserve important open spaces and natural resources. PUDs are expressly authorized by the Zoning Enabling Act with the intent to facilitate development that, in part, encourages innovation in land use and variety in design, layout, and type of structures constructed; achieves economy and efficiency in the use of land, natural resources, energy, and the provision of public services and utilities; encourages useful open space; and provides better housing, employment, and shopping opportunities. PUDs are sometimes used as a means to facilitate residential cluster development discussed above, and are frequently used to facilitate development that provides a mix of housing units and nonresidential uses in one unified site design. The specific PUD provisions of an ordinance dictate the character and scope of development that may occur under such a development option.

Density Incentives: The provision of density incentives can significantly encourage desirable forms of development. A developer’s profit margin is frequently linked to the number of home sites that can be accommodated on the site. The number of home sites sold affects the extent to which development costs are offset, including the cost of the land, road infrastructure, utilities, and site amenities such as landscaping, trails and other recreational elements. The increased density that a community may offer to individuals pursuing a specific form of development, such a cluster development as described earlier, may well be the deciding factor for some to undertake such projects, particularly if the cluster form of development is more complex or requires a lengthier review and approval process.

Other Land Development Codes and Programs

Subdivision and Land Division Ordinances

When a developer proposes to subdivide land, the developer is, in effect, planning a portion of the community. To ensure that such a development is in harmony with the Master Plan, the subdivision or resubdivision of residential and nonresidential land must be adequately reviewed. A subdivision ordinance establishes requirements and design standards for the development of plats including streets, blocks, lots, curbs, sidewalks, open spaces, easements, public utilities, and other associated subdivision improvements. The Land Division Act, PA 288 of 1967, as amended, provides the authority for municipalities to adopt local ordinances to administer the provisions of the Land Division Act including the platting of subdivisions.

With the implementation of a subdivision ordinance, there is added insurance that development will occur in an orderly manner and the public health, safety and welfare will be maintained. For example, subdivision regulations can help ensure developments are provided with adequate utilities and streets, and appropriately sized and shaped lots. Adopting a local ordinance addressing the creation of subdivisions can encourage a more orderly and comprehensive manner for the review and approval of subdivision plats.

Of equal importance is the reliance on a “land division ordinance.” While a subdivision ordinance addresses unified residential developments of multiple lots (plats), much of the residential development in the county has been on incremental land divisions for individual home sites. A land division ordinance assures that incremental divisions not part of a subdivision meet certain minimum standards such as access and lot area and width. The Land Division Act also provides municipalities with the authority to adopt a land division ordinance. Such an ordinance can ensure consistency in review and approval practices. Land division ordinances should be reviewed and updated as may be necessary.

Other Special Purpose Ordinances

While zoning and subdivision regulations are the most frequently used tools for the regulation of land use and development, the control of land use activities can extend beyond their respective scopes. Special purpose rules and regulations can complement zoning and subdivision regulations and further the implementation of the Master Plan. Such ordinances may address matters pertaining to noise, public nuisances, outdoor assemblies, junk, weeds, and other conditions. County and local officials should evaluate current special purpose ordinances and determine what new ordinances, and/or amendments made to current ordinances, may be beneficial to further implement the Master Plan.

Maintaining a Current Master Plan

Successful planning requires the maintenance of a current Master Plan. The Master Plan should be updated periodically. The Plan must be responsive to community changes if it is to be an effective community tool and relied upon for guidance. Periodic review of the Plan should be undertaken to determine whether the Plan continues to chart a realistic and desirable future. Community changes that may suggest updates to the Plan include, but need not be limited to, changing conditions involving available infrastructure and public services, growth trends, unanticipated and large-scale development, and changing aspirations.

The importance of maintaining a current Master Plan is reflected in the Planning Enabling Act's requirement that a Planning Commission review its Master Plan at intervals not greater than five years to determine whether amendments or a wholly new Plan is necessary.

Important questions that should be asked during a review of the Plan should include, at a minimum:

- 1) Does the Plan present valid and current inventory data (Appendices)?
- 2) Does the discussion of planning issues and specific goals/objectives continue to be appropriate today?
- 3) Do the future land use and public services policies continue to reflect preferred strategies to address development, preservation and public services?
- 4) Have there been any new and/or significant development projects that have raised concerns and which may suggest changes to the Master Plan?
- 5) Have there been any other major changes that were not anticipated under the current Master Plan?
- 6) Have any specific development decisions been made (such as rezonings and site plan approvals) that may have appeared contrary to the Master Plan and, if so, do such decisions suggest the need to revise the Plan to be more responsive to local conditions?
- 7) Have any text amendments been made to local zoning regulations that suggest Master Plan revisions?
- 8) Is the character of growth and development (residentially, commercially and other) since the Plan was adopted in keeping with Plan's vision (goals, objectives, and policies)?
- 9) Are there significant discrepancies between the local Future Land Use Map and Zoning Map?
- 10) Does the Master Plan comply with current law?

Amendments to the Plan, or the preparation of a wholly new Plan, should follow the minimum procedures delineated in the Planning Enabling Act in addition to measures officials believe will enhance the planning process including substantive opportunities for public input.

Appendix A

DEMOGRAPHIC FEATURES

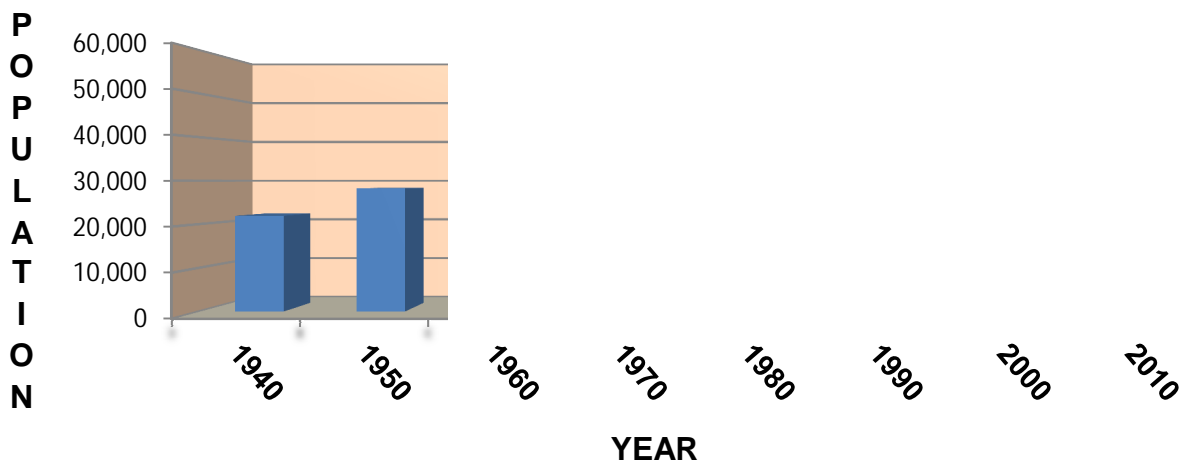
Introduction

Understanding the demographic profile of an area can provide important insights into the development of planning policies and the delivery of public services. Examples of demographic features that can impact the effective provision of public services and facilities include locations of greatest population density, areas of elevated levels of young children and the elderly, low-income areas, decreased education levels, and single-parent families. This part of the Master Plan provides an overview of county-wide demographic features in addition to, in instances, of demographic characteristics of the county's local municipalities.

Cass County Population Growth

The 2010 U.S. Census (Census) recorded a Cass County population of 52,293 persons, a 2.3% increase from its 2000 population of 51,104 persons. The county's population growth since 1940 reflects two distinct phases, comparatively strong growth between 1940 and 1980 and then a near leveling of or very limited growth since 1980 (see Figure A-1 and Table A-1). The years of 1940 to 1960 witnessed the county's strongest growth, 68.6%, before exhibiting a more modest growth rate of 14.3% between 1960 and 1980. Since 1980, the county has grown 5.6% and had a minimal drop in population (22 persons) between 1980 and 1990. Since 1940, the county's population has increased by 138.7%.

FIGURE A-1
Cass County Population Trend, 1940 - 2010
Source: U.S. Census Bureau



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Table A-1
County Population Growth

Source: 2010 U.S. Census

JURISDICTION	1940	1950	1960	1970	1980	1990	2000	2010
CASS COUNTY	21,910	28,185	36,932	43,312	49,499	49,477	51,104	52,293
TOWNSHIPS								
Calvin	899	996	1,172	1,347	1,643	1,813	2,041	2,037
Howard	1,451	2,952	4,622	5,497	6,524	6,378	6,309	6,207
Jefferson	838	987	1,255	1,718	1,963	2,097	2,401	2,541
LaGrange	2,296	2,488	3,321	3,583	3,526	3,421	3,340	3,500
Marcellus	1,599	1,621	1,814	2,006	2,463	2,553	2,712	2,539
Mason	594	590	853	1,519	2,132	2,450	2,514	2,945
Milton	619	1,179	1,541	1,727	2,235	2,284	2,646	3,878
Newburg	883	907	1,023	1,174	1,383	1,627	1,703	1,632
Ontwa	1,145	2,020	3,772	5,224	5,787	5,592	5,865	6,549
Penn	1,115	1,164	1,522	1,775	2,044	1,877	1,902	1,774
Pokagon	1,254	1,518	1,935	2,189	2,394	2,188	2,199	2,029
Porter	1,148	1,492	2,001	2,765	3,857	3,859	3,794	3,798
Silver Creek	1,177	1,773	2,108	2,886	3,361	3,213	3,491	3,218
Volinia	766	774	815	986	1,182	1,048	1,174	1,112
Wayne	1,119	1,272	1,970	2,333	2,699	2,668	2,861	2,654
CITY/VILLAGES								
Cassopolis	1,488	1,527	2,027	2,108	1,933	1,822	1,740	1,774
Dowagiac	5,007	6,542	7,208	6,583	6,307	6,409	6,147	5,879
Edwardsburg	NA	616	902	1,107	1,135	1,142	1,147	1,259
Marcellus	NA	1,014	1,073	1,139	1,134	1,193	1,162	1,198
Vandalia	NA	360	357	427	447	357	429	301

The growth of the county has not been evenly distributed (see Table A-2). While its population increased 138.7% since 1940, positive growth rates among local municipalities ranged from 17.4% to 472.0%, with the Village of Vandalia being the only community to witness a population decrease during this period (-16.4%). The fastest and slowest growing communities since 1940 are:

Fastest Growing 1940 -- 2010

Ontwa Township	(472.0%)
Howard Township	(327.8%)
Milton Township	(327.5%)
Mason Township	(323.2%)
Porter Township	(230.8%)

Slowest Growing 1940 -- 2010

Vandalia Village	(-16.4%)
City of Dowagiac	(17.4%)
Village of Marcellus	(18.1%)
Village of Cassopolis	(19.2%)
Volinia Township	(45.2%)

More recent growth periods reflect a somewhat different growth pattern. While the townships of Mason, Milton and Ontwa continued to be dominant growth areas between 1980 and 2010, their respective positions varied and the townships of Howard and Porter were replaced by Jefferson and Calvin.

Fastest Growing 1980 -- 2010

Milton Township	(73.5%)
Mason Township	(38.1%)
Jefferson Township	(29.4%)
Calvin Township	(24.0%)
Ontwa Township	(13.2%)

Fastest Growing 2000 -- 2010

Milton Township	(46.6%)
Mason Township	(17.1%)
Ontwa Township	(11.7%)
Edwardsburg	(9.8%)
Jefferson Township	(5.8%)

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The growth dynamics dramatically changed between 2000 and 2010 when the national economic downturn hit Michigan and Cass County. Only nine of the county's 20 local municipalities witnessed positive growth during this period. Still, Milton Township continued to reflect the strongest growth rate, 46.6%, while the county as a whole grew by only 2.3%. The second fastest growing community, Mason Township, witnessed a growth rate less than half that of Milton Township. The Village of Edwardsburg became the first city/village to be one of the top five growing communities (9.8%).

Since 1940, the fastest growing region of the county has been the townships along the Indiana state line. In more recent times, the heightened growth rates have extended north to include Edwardsburg and the townships of Calvin, Jefferson and Howard – communities all located in the county's southwest quarter. This is a reflection of, in part, the growth and development spurred by the greater South Bend and Elkhart areas.

Table A-2
County Population Growth Rates
Source: 2010 U.S. Census

JURISDICTION	1940 - 1960	1960 - 1980	1980 - 2000	2000 - 2010	1940 - 2010
CASS COUNTY	68.6%	14.3%	3.2%	2.3%	138.7%
TOWNSHIPS					
Calvin	30.4%	40.2%	24.2%	-0.2%	126.6%
Howard	218.5%	41.2%	-3.3%	-1.6%	327.8%
Jefferson	49.8%	56.4%	22.3%	5.8%	203.2%
LaGrange	49.6%	6.2%	-5.3%	4.8%	54.4%
Marcellus	13.4%	35.8%	10.1%	-6.4%	58.8%
Mason	43.6%	150.0%	17.9%	17.1%	323.2%
Milton	148.9%	45.0%	18.4%	46.6%	327.5%
Newburg	15.9%	35.2%	23.1%	-4.2%	92.9%
Ontwa	229.4%	53.4%	1.3%	11.7%	472.0%
Penn	36.5%	34.3%	-6.9%	-6.7%	59.1%
Pokagon	54.3%	23.7%	-8.1%	-7.7%	61.8%
Porter	74.3%	92.8%	-1.6%	0.1%	230.8%
Silver Creek	79.1%	59.4%	3.9%	-7.8%	173.4%
Volinia	6.4%	45.0%	-0.7%	-5.3%	45.2%
Wayne	13.7%	37.0%	6.0%	-7.2%	137.2%
CITY / VILLAGES					
Cassopolis	36.2%	-4.6%	-10.0%	2.0%	19.2%
Dowagiac	44.0%	-12.5%	-2.5%	-4.4%	17.4%
Edwardsburg	46.4%	25.8%	1.1%	9.8%	104.4%
Marcellus	5.8%	5.7%	2.5%	3.1%	18.1%
Vandalia	-0.8%	25.2%	-4.0%	-29.8%	-16.4%

Perhaps the most striking difference among varying growth rates of the county's local municipalities is the growth of the townships as compared to Dowagiac and the county's four villages. The combined growth rates of the county's 15 townships (131.1%) from 1950 – 2010 was 4.5 times greater than that of the villages (28.9%) and during the same period, Dowagiac's population decreased by 10.1%.

Cass County and Regional Population Growth

Cass County's population growth has been comparatively strong when examined on a regional level. Cass County and the six surrounding counties had an average growth rate from 1940 to 2010 of 107.1%, compared to Cass County's own growth rate of 138.7% for the same period. However, Cass County's comparatively strong growth during this period occurred between 1940 and 1980 when its 125.9% growth rate exceeded all of the six surrounding counties (typically by 25% or more).

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Conversely, Cass County's 3.2% growth rate during the following 20 years was the second slowest of the region, with Berrien County witnessing decline in population of -5.1%. Cass County's growth rate of 2.3% between 2000 and 2010 was just slightly higher than the average growth rate of 2.2% for the seven counties. During this period, three of the surrounding counties experienced no growth or population declines and Elkhart County (Indiana) witnessed the highest growth at 8.1%.

Table A-3
Regional Population Growth Rates

Source: 2010 U.S. Census

JURISDICTION	1940 - 1980	1980 - 2000	2000 - 2010	1940 - 2010
Berrien Co.	92.9%	-5.1%	-3.5%	76.0%
Cass Co.	125.9%	3.2%	2.3%	138.7%
Elkhart Co. (IN)	89.1%	33.1%	8.1%	172.0%
Kalamazoo Co.	112.2%	12.3%	4.9%	150.1%
St. Joseph Co.	76.6%	11.3%	-1.8%	93.1%
St. Joseph Co. (IN)	49.3%	9.9%	5.1%	65.0%
Van Buren Co.	90.3%	14.1%	0.0%	117.2%
7-County Region	82.5%	11.1%	2.2%	107.1%
Michigan	76.2%	7.3%	-0.6%	88.0%

Cass County's growth since 1940 has outpaced the state's as a whole by 57.6%. Though Cass County's 2.3% growth between 2000 and 2010 was slight, Michigan witnessed a population decline of -0.6%, the only state to witness a drop in population during this period.

Cass County Population Distribution

As a result of the varying growth rates among the county's local municipalities, the distribution of the county's population is very uneven (see Table A-4). 50% of the county's population in 2010 was contained within only 25% of the local municipalities –Dowagiac and the townships of Ontwa, Howard, Milton and Porter. All of these townships are located in the southwest corner of the county except for Porter's location at the southeast corner. Perhaps more significantly is their location along or close to Indiana where growth has been similarly strong.

The uneven distribution of the county's population growth is illustrated in the county's urban centers as well. The City of Dowagiac and the county's four villages of Cassopolis, Edwardsburg, Marcellus and Vandalia have not witnessed the growth that their counterpart townships have. While the township growth rates between 1940 and 2010 averaged 179.6%, Dowagiac witnessed a growth rate of 17.4% and the four villages had an average growth rate of 31.3%. Dowagiac and Cassopolis have witnessed declining populations since 1960 and 1970 respectively, and the population of Marcellus has fluctuated up and down since 1960. Though Vandalia's population grew to 447 in 1980, its 2010 population of 301 was less than its 1950 population of 360. Edwardsburg was the only one of the five communities that witnessed positive growth during each ten-year period since 1950 (though very minimal in the 1980s and 1990s).

As a result of the disparity of growth among the townships versus Dowagiac and the four villages, the proportional share of the urban population comprising the county has dropped markedly. Dowagiac and the four villages comprised 37.7% of the county's population in 1950 and only 19.9% in 2010. See Table A-4.

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**Table A-4
Population Distribution**

Municipality	2010 Population	Proportion of County Population	Municipality	2010 Population	Proportion of County Population
Ontwa Twp.	6,549	12.5%	Marcellus Twp.	2,539	4.9%
Howard Twp.	6,207	11.9%	Calvin Twp.	2,037	3.9%
Dowagiac	5,879	11.2%	Pokagon Twp.	2,029	3.9%
Milton Twp.	3,878	7.4%	Cassopolis	1,774	3.4%
Porter Twp.	3,798	7.3%	Penn Twp.	1,774	3.4%
LaGrange Twp.	3,500	6.7%	Newburg Twp.	1,632	3.1%
Silver Crk. Twp.	3,218	6.2%	Edwardsburg	1,259	2.4%
Mason Twp.	2,945	5.6%	Marcellus	1,198	2.3%
Wayne Twp.	2,654	5.1%	Volinia Twp.	1,112	2.1%
Jefferson Twp.	2,541	4.9%	Vandalia	301	0.6%

Source: 2010 U.S. Census

Population Projections

Estimating future population growth can provide important insights into identifying land use and public services needs. Projecting the growth of a county's population over a prescribed period of time is not an exact science. The many unpredictable factors that affect growth make population projections somewhat speculative. The collapse of the housing market and severe downturn in the economy beginning in 2007 are extreme examples of this condition. Because of the severity of the housing and financial market that surfaced in 2007, both in Michigan and nationally, projecting population growth at this particular time is uniquely challenging. By using several projection techniques, a range of growth estimates can be generated. These shed light on potential growth scenarios provided planning policies and land development regulations do not limit growth any more than in the past.

Table A-5 presents four growth scenarios based on past growth trends. The 1980 – 2000 trend projects the slowest rate of growth (1.6% every ten years), as experienced following the county's strong growth during the previous 40 years. The 2000 – 2010 trend projects a somewhat higher rate (2.3%) of growth according to the county's growth during the past decade. The 1960 – 2010 trend assumes county growth will occur at 4.0% every ten years, as it has (on average) since 1960. The 1960 – 1980 trend projects the county to grow at the same rate it did during the second half of the its strongest growth period (7.1%). This last projection is least likely to be realized in light of the economic challenges currently facing Cass County and the state.

**Table A-5
Cass County Population Projections**

Projection Trend (10-Year Growth Rates)	2010 Population	Projection 2020	Projection 2030	Projection 2040
1980 -- 2000 Trend (1.6%)	52,293	53,129	53,979	54,843
2000 -- 2010 Trend (2.3%)	52,293	53,495	54,726	55,985
1960 -- 2010 Trend (4.0%)	52,293	54,385	56,560	58,823
1960 -- 1980 Trend (7.1%)	52,293	56,006	59,982	64,241

If local zoning programs do not undergo substantive changes regarding permitted development densities, it is reasonable to expect the vast majority of this growth will continue to be absorbed by the county's rural and urbanizing townships.

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Cass County Racial Profile

The 2010 Census showed Cass County to have a comparatively homogeneous racial composition, with nearly 88.9% of its residents identifying themselves as being of one race – White. The vast majority of the balance of the county's residents also described themselves as being of a single race, Black or African American, and comprised 5.4% of the population. This limited diversity is not uncommon in Michigan's predominantly rural areas like Cass County. Two-thirds of the townships were comprised of 92% or more of white residents while, in contrast, three of the five urban centers (Dowagiac and the villages of Cassopolis and Vandalia) exhibited white populations under 74% and black populations ranging from 14.3% (Dowagiac) to 42.2% (Vandalia). LaGrange and Calvin Townships were unique among the county's townships, with more than 17% of their populations being Black/African American. See Table A-6.

**Table A-6
Race Profile**

Source: 2010 U.S. Census

JURISDICTION	2010 Population	Single Race				Native Hawaiian and other Pacific Islander (%)	All Other Races, Alone and in Combination (%)	Hispanic of any Race (%)
		White (%)	Black or African American (%)	American Indian And Alaska Native (%)	Asian (%)			
MICHIGAN	9,883,640	78.9	14.2	0.6	2.4	0.0	3.8	4.4
CASS COUNTY	52,293	88.9	5.4	1.0	0.6	0.0	4.1	3.0
TOWNSHIPS								
Calvin	2,037	73.7	18.7	0.6	0.6	0.0	6.3	1.4
Howard	6,207	92.2	3.8	0.5	0.6	0.0	3.3	2.5
Jefferson	2,541	91.7	4.7	0.3	1.1	0.0	2.3	1.1
LaGrange	3,500	72.5	17.5	2.6	1.6	0.0	5.8	3.5
Marcellus	2,539	96.4	1.2	0.5	0.3	0.0	1.6	1.9
Mason	2,945	95.6	0.3	0.1	0.8	0.0	3.1	2.3
Milton	3,878	94.8	1.8	0.2	0.8	0.0	2.8	1.9
Newburg	1,632	93.9	3.1	0.7	0.4	0.0	2.0	1.2
Ontwa	6,549	96.0	0.9	0.3	0.3	0.1	2.4	1.8
Penn	1,774	83.0	10.0	0.4	2.3	0.0	4.4	2.5
Pokagon	2,029	88.8	5.6	0.8	0.6	0.0	4.0	2.8
Porter	3,798	96.8	0.4	0.3	0.2	0.0	2.1	1.8
Silver Creek.	3,218	90.0	1.2	1.8	0.1	0.0	6.8	9.7
Volinia	1,112	95.8	2.0	0.0	0.7	0.0	1.6	1.8
Wayne	2,654	92.0	1.7	1.5	0.4	0.0	4.3	3.1
CITY/VILLAGES								
Cassopolis	1,774	60.0	29.3	1.1	2.4	0.1	7.1	4.5
Dowagiac	5,879	73.5	14.3	3.0	0.8	0.0	8.5	5.4
Edwardsburg	1,259	93.6	1.5	0.8	0.2	0.3	3.5	3.2
Marcellus	1,198	96.5	1.6	0.3	0.3	0.0	1.4	1.5
Vandalia	301	41.5	42.2	0.3	7.6	0.0	8.3	1.7

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Cass County's racial profile reflects less diversity as compared to Michigan as a whole. However, the presence of the Pokagon Band of Pottawatomi Indian Tribe in the county is very evident in the county's racial profile. Not only did the 1.0% American Indian/Alaska Native population in the county in 2010 approach twice that of Michigan as a whole (0.6%), eight of the county's local municipalities had American Indian/Alaska Native populations proportionally greater than the state. Dowagiac and the townships of LaGrange, Silver Creek and Wayne reflect the greatest proportions of the American Indian/Alaska Native population.

Cass County Age Profile

The median age of Cass County residents in 2010 was 42.6 years – that age at which half of the population was younger and the other half was older. Since 1980 when the county median age was 30.5 years, the median age has increased approximately four years every 10 years. There is considerable variation among the county's local municipalities contributing to the median age. In fact, median age among the county's 20 local municipalities ranged from 32.0 to 47.7 years. This wide range is associated with the contrast between the county's townships and their urban counterparts. While the median age among townships ranged from 38.9 years (LaGrange) to 47.7 years (Penn), the median age among Dowagiac and the four villages ranged from 32.0 years (Dowagiac) to 39.3 years (Vandalia). The median age of the youngest community, Dowagiac, was nearly 22% less than the youngest township and 49% less than the most mature township.

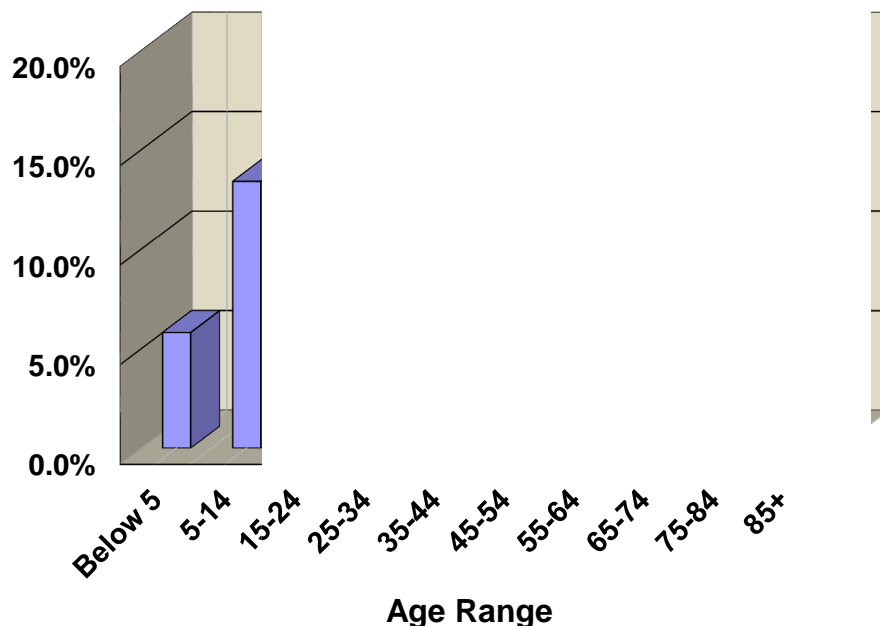
Based on median age in 2010, the youngest and most mature townships are:

Youngest: LaGrange, Marcellus, Mason, and Ontwa

Most Mature: Penn, Porter, Silver Creek, and Wayne

The county's median age of 42.6 years was 9.5% greater than that of Michigan (38.9 years). The county's elevated median age is due in part to the fact that the proportion of the county's population that was 65 years of age and older (16%) was nearly 16% greater than that of the state (13.8%).

Figure A-2
Cass County Age Profile
Source: 2010 U.S. Census



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**Table A-7
Age Profile**

Source: 2010 U.S. Census

JURISDICTION	2010 Population	Median Age (years)	Age Under 18 (%)	Age 18 – 64 (%)	Age 65 and Over (%)
MICHIGAN	9,883,640	38.9 yrs.	23.7%	62.5%	13.8%
CASS COUNTY	52,293	42.6 yrs.	23.4%	60.6%	16.0%
TOWNSHIPS					
Calvin	2,037	44.3 yrs.	23.6%	60.9%	15.5%
Howard	6,207	44.9 yrs.	21.2%	61.6%	17.2%
Jefferson	2,541	44.6 yrs.	23.8%	60.3%	15.9%
LaGrange	3,500	38.9 yrs.	22.7%	62.4%	14.9%
Marcellus	2,539	39.4 yrs.	24.9%	59.4%	15.7%
Mason	2,945	40.1 yrs.	25.5%	61.5%	13.0%
Milton	3,878	43.9 yrs.	24.4%	61.7%	13.9%
Newburg	1,632	45.0 yrs.	20.8%	63.7%	15.5%
Ontwa	6,549	41.6 yrs.	25.3%	58.9%	15.8%
Penn	1,774	47.7 yrs.	20.4%	58.9%	20.7%
Pokagon	2,029	45.0 yrs.	21.2%	61.0%	17.8%
Porter	3,798	47.6 yrs.	19.2%	63.7%	17.1%
Silver Creek	3,218	46.6 yrs.	21.3%	56.5%	22.2%
Volinia	1,112	44.2 yrs.	24.3%	60.1%	15.6%
Wayne	2,654	45.5 yrs.	20.6%	63.2%	16.2%
CITY/VILLAGES					
Cassopolis	1,774	35.4 yrs.	25.5%	61.1%	13.4%
Dowagiac	5,879	32.0 yrs.	29.1%	58.3%	12.6%
Edwardsburg	1,259	36.1 yrs.	29.4%	57.4%	13.2%
Marcellus	1,198	34.9 yrs.	29.6%	57.3%	13.1%
Vandalia	301	39.3 yrs.	25.6%	57.5%	16.9%

Cass County Households

The 2010 Census recorded 20,604 households and 14,543 families in Cass County. These numbers represent an increase of 4.7% households since the 2000 Census and an increase of 1.7% families. The county's average household size of 2.5 persons in 2010 was slightly lower than that of the state (2.6), and slightly lower than its average household size in 2000 (2.6). Similarly, the county's average family size of 3.0 persons in 2010 was slightly lower than that of the state (3.1) and equal to the county's average family size in 2000.

Of all the households in Cass County in 2010, 54.6% included a married-couple (see Figure A-3 and Table A-8). This percentage is nearly 14% greater than that of the state (48.0%). Of the 16.0% of families not consisting of a married couple, two-thirds were headed by a female householder. 29.4% of all households were comprised of non-family households, 13.5% less than that of the state (34.0%). 10.0% of all households were comprised of a householder of age 65 years or greater and living alone. See Figure A-3 and Table A-8. Compared to the state as a whole, Cass County has noticeably less households with persons under 18 years of age, and more households with persons over 65 years of age. This condition contributes to the county's comparatively high median age.

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Figure A-3
Cass County Household Type
Source: 2010 U.S. Census

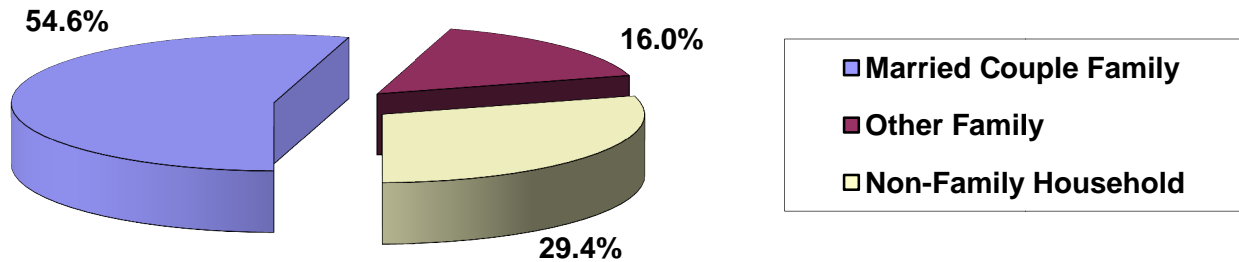


Table A-8
Household Profile

	CASS COUNTY	STATE OF MICHIGAN
HOUSEHOLD TYPE		
Married-couple family	54.6%	48.0%
Other family:	16.0%	18.0%
(Male householder)	5.3%	4.8%
(Female householder)	10.7%	13.2%
Non-family household	29.4%	34.0%
AGE CHARACTERISTICS		
Households with person(s) under 18	30.5%	35.6%
Households with person(s) over 65	29.1%	22.8%
Householder is 65 or older, living alone	10.0%	9.4%
PERSONS Per HOUSEHOLD	2.5 persons	2.6 persons
PERSONS Per FAMILY	3.0 persons	3.1 persons

Source: 2010 U.S. Census

Appendix B

TRANSPORTATION and CIRCULATION

Regional Access

Regional access to the Cass County area is provided by Interstate 94, approximately eight miles to the north, I-80, approximately two miles to the south in Indiana; U.S. 131, approximately eight miles to the east; and US-31, approximately five miles to the west. Regional access is also available from several regional airports including the Dowagiac Municipal Airport, the Kalamazoo/Battle Creek International Airport, the Elkhart City Airport and the South Bend Regional Airport. Passenger rail service is available from the Northern Indiana Commuter Transportation District, which runs the South Shore Line Passenger Service from Chicago to South Bend, Indiana.

Road Network

Overview and Jurisdiction: Regional access to and within the county is further facilitated by a number of other federal and state highways. US-12 travels across the southern limits of the county and M-40 travels north and south through the county's eastern limits, linking US-12 with I-94 to the north. M-60 travels east and west through the county's southwest and central parts and intersects with M-40. M-51 travels through the northwest quarter of the county, joining I-94 with US-31 to the west. M-62 also travels across the northwest quarter of the county and travels south connecting Dowagiac, Cassopolis, and Edwardsburg. The local road network generally reflects a grid-like pattern according to township section lines – the same overall pattern that dominates much of the Lower Michigan rural landscape (See General Circulation Map, Appendix H). However, there are substantial voids in the network due to various factors including the presence of wetlands, lakes and other water courses. The road network of Dowagiac and the county's four villages also reflects a traditional grid-like pattern customary in urban communities.

The public roads of Cass County fall under the responsibility of three principal parties. The state highways fall under the jurisdiction of the Michigan Department of Transportation (MDOT). Those public roads within the municipal borders of Dowagiac and the county's four villages fall under the jurisdiction of each of the respective municipalities. The balance of the county's public road network, and vast majority of road miles (in excess of 1,000 miles) is under the jurisdiction of the Cass County Road Commission (CCRC).

Primary, Secondary and Class A Roads: In compliance with the requirements of Michigan Public Act 51 of 1951 (Act 51), the CCRC classifies all roads under its jurisdiction as either “*primary*” or “*local*” roads. Primary roads are considered the most critical in providing regional circulation throughout the county and between counties (See General Circulation Map, Appendix H).

The CCRC further divides its primary roads into two classes – Class A and Class B. Class A roads are constructed in such a manner that no vehicle weight restrictions apply throughout the year. The design and construction of Class B roads requires the CCRC to institute weight restrictions during late winter and early spring. These seasonal weight restrictions impact the transportation of goods. Class A roads in Cass County are limited to the following:

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Barron Lake Road between M-60 and Pokagon Highway
Brownsville Road between M-62 and Calvin Center Road
Calvin Center Road between US-12 and M-60
Cassopolis Road between Old M-205 and Calvin Hill Street
Conrad Road between May Street and US-12
Dailey Road between Pine Lake St and M-60
Dailey Road between Pokagon Highway and Mathews Street
Decatur Road between M-60 and Crane Street
Dutch Settlement Street between Lawrence Road and Moorlag Road
Marcellus Highway between Dowagiac City Limits to M-40
May Street between Conrad Rd and M-62
Old M-205 between Indiana State Line and US-12
Pine Lake Street between M-60 and Conrad Road
Pokagon Highway between M-51 and Cassopolis Village Limits
Pokagon Street between M-51 and Dowagiac City limits
Reum Street between Berrien County Line and M-60

All state highways in the county are also considered all-season roads except M-216 and M-62 between Dowagiac and Cassopolis

National Functional Classification and Funding: Also of importance is the functional classification of roads as established by the Federal Highway Administration (FHA). The FHA classifies road segments according to the extent to which the road is intended to facilitate traffic movement over long and short distances versus access to abutting property. This classification is referred to as the National Functional Classification (NFC). The relative hierarchy of the classification can be summarized as follows:

Interstates and Other Freeways are at the top of the NFC hierarchical system and frequently include freeways and state highways between major cities. Interstates and freeways function to primarily facilitate long distance travel including access to important traffic generators such as major airports and regional shopping centers.

Arterials function similarly to interstates and freeways except that they facilitate shorter travel distances and access to lesser traffic generators. Arterials are further divided into major and minor arterials.

Collectors function with a much greater focus on providing access to property rather than long distance travel, and frequently funnel traffic from residential or rural areas to arterials. Like arterials, collectors are further divided into major and minor collectors.

Local Roads serve primarily to provide access to adjacent properties and minor collectors and typically include roads serving subdivisions and similar neighborhood settlement areas.

While there is a strong correlation between those roads classified by the CCRC as “primary” and the NFC’s classification of arterials and collectors, this correlation does not apply in all cases. There are some road segments classified as primary roads according to the CCRC but classified as local roads according to the NFC. See National Functional Classification Circulation Map, Appendix H.

Road Improvements: The CCRC maintains a tentative schedule of annual road improvements. The improvement schedule looks approximately five years into the future. However, due to funding and other considerations, road improvements to be implemented in any specific year are not fully known until the construction season approaches. There are no major road improvements planned in the county at this time. Scheduled improvements are principally limited to repairs and resurfacing. In

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some cases, the CCRC is examining the removal of the asphalt surface material along some road segments in an effort to minimize long-term maintenance costs along some of the less-traveled paved segments. All of the repair efforts by the CCRC are in addition to its regular road maintenance activities including grading, dust control, and snow removal. The last major road improvement in Cass County was the construction of M-217, connecting I-80 in Indiana to U.S. 12 just west of Union along the Mason and Porter Township borders.

State Funding: Undertaking road improvements, and even day-to-day road maintenance, has been challenging across the state and this condition has been exacerbated with the recent economic downturn and shrinking municipal revenues. The funding of road improvements in Michigan, by the state, has a history of comparatively low priority and the state's road network today reflects this history. The state funding of roads in Michigan occurs through two primary sources – vehicle registration fees and state-collected gas tax. These two sources account for approximately 90% of state funding. State-collected revenues for roads are distributed according to the Act 51 formula. Certain funds are dedicated to state highway bridge work, railroad crossings, economic development initiatives, and public transportation, and the balance is divided as follows:

- 39.1% to MDOT (principally for state highways)
- 39.1% to the state's 83 county road commissions, or similar bodies, which in turn utilize the funds to address the transportation needs of the state's 1,224 townships
- 21.8% to the state's 533 cities and villages

The classification of roads by the CCRC has important financial implications with regard to maintenance and improvements. Under Michigan law, townships have no responsibility for funding road improvements and maintenance. The CCRC is responsible for local road maintenance and must maintain and improve primary roads at its own expense. However, state law limits the participation of Road Commissions to no more than 50% of the cost for improvements to local roads. Requests by local townships for local road maintenance levels beyond those considered adequate or feasible by the CCRC, and requests for improvements to local roads, frequently require local funding. In reality, there are very few counties in Michigan where local townships are not actively involved in funding road maintenance and improvements.

Federal Funding: The federal government applies an 18.4% gas tax. The revenue is available for major road improvements, with MDOT receiving 75% of the state's funds and the balance being divided among the county road commissions, cities and villages. The classification of roads according to the NFC has financial implications as well. Federal aid for road projects is limited to roads classified as major collectors or higher. Roads classified as minor collectors have only limited eligibility and roads classified as local roads are not eligible for federal funding.

Federal funding for a portion of Cass County is administered through the Niles-Buchanan-Cass Area Transportation Study (NATS). NATS is a metropolitan planning organization (MPO) – an entity comprised of representatives from local government and transportation organizations and tasked with undertaking transportation planning in a comprehensive and cooperative manner for regional urbanized areas with populations in excess of 50,000 (according to the U.S. Census). Federal funds must be channeled through an MPO for these urbanized areas. NATS is part of the South Bend/Elkart Urbanized Area and serves the Cass County communities of Howard Township, Milton Township, Ontwa Township, and the Village of Edwardsburg.

Federal funding for Cass County is also channeled through the Cass County Rural Task Force and administered through MDOT. The Rural Task Force program provides funding for road and transit improvements. The Task Force includes representatives from the CCRC, transit providers, and cities and villages with a population less than 5,000.

Public Transportation

Public transportation generally refers to modes of transportation whereby members of the public share occupancy of the vehicle providing the transportation. The mode of transportation is typically by bus or train and may include high speed transit lines.

Today, public transportation in Cass County is somewhat limited as might be expected with the county's dispersed population and comparatively small settlement areas. Dowagiac Dial-a-Ride and Cass County Transit Authority are the only transit service providers. Both provide a curb-to-curb bus service available by reservation, with Cass County Transit being county-wide. Cass County Transit is managed by the Cass County Transportation Authority. The Authority contracts with Transportation Management Inc. to operate the system. Consolidation of Dowagiac Dial-a-Ride and Cass County Transit Authority is currently under consideration.

Efforts have been underway to bring high-speed rail to Cass County. The Midwest Regional Rail Initiative is a nine-state initiative to improve commuter rail service including both access to the service and enhanced train speeds (some sections to have speeds in excess of 100 mph). The service is to rely on the construction of new tracks and upgrading existing rail corridors and crossings. High-speed rail service is currently available from Chicago to Port Huron and Detroit. However, upon completion of the expanded high-speed rail system, there may be no opportunities to access the service within Cass County and residents may need to travel to St. Joseph, Benton Harbor, Niles or Kalamazoo for the high speed rail service.

For more information regarding county-wide transportation, please see the Tribal Transit Feasibility Plan prepared by the Southwest Michigan Regional Planning Commission.

Non-Motorized Travel

Residents of and visitors to Cass County have an extensive road network available to them for biking. Most of the road miles pass through rural landscapes including farmland and wooded areas. However, very few of the road miles include a paved shoulder to facilitate safer non-motorized travel. MDOT maintains a record of its primary roads for biking purposes, and classifies the road segments according to their level of traffic and the type of road surface (paved/unpaved), and the presence of paved shoulders. Roads that currently have paved shoulders are principally limited to portions of the county's state highways and U.S.-12, as follows:

M-60 from Cassopolis east to Three Rivers (St. Joseph Co.).

M-62 from Edwardsburg south to Indiana, and from Dowagiac west to Eau Claire (Berrien Co.).

M-62 from Edwardsburg south to Indiana state line.

M-217 from Union south to Indiana state line.

U.S.-12 from Edwardsburg west to Niles (Berrien Co.) and beyond.

U.S.-12 from Union west to Redfield Road in Mason Township.

Lake Street in Howard Township, from Bailey Road west to Niles (Berrien Co.).

Yankee Street in Howard Township, from M-60 west to Niles (Berrien Co.).

There are several communities in the county that have established designated bike paths and are pursuing improvements to accommodate safe and comfortable bike travel. Examples include a designated bike path in Silver Creek Township from Russom Park to the township hall, and a bike path around Diamond Lake in the townships of LaGrange, Jefferson, Calvin and Penn.

Appendix C

LAND USE

Introduction

Existing land use and development patterns in Cass County are important considerations in the development of policies addressing future growth and land use. Existing land use patterns help to define opportunities for the accommodation of new development within a “smart growth” context, and areas more appropriate for preservation policies. This portion of the Master Plan provides an overview of county-wide land use patterns.

General

The vast majority of the Cass County landscape is very open and rural in character, comprised of woodlands, wetlands, farm operations, and scattered residences. Within this predominantly rural fabric is the presence of comparatively small suburban and urban centers. Certainly the most prominent is the City of Dowagiac and the four villages of Cassopolis, Edwardsburg, Marcellus and Vandalia. The four villages are dominated by residential and commercial uses along with public and semi-public uses that support the respective community and the more regional area in some cases. Dowagiac includes a greater presence of industry. The county also includes several small unincorporated urban pockets such as Union, Jones, Pokagon, and Sumnerville,

While the landscape surrounding Dowagiac, the four villages and other small urban pockets is predominantly of an open space character, there are many instances of moderate to high density residential lakefront development. It is the county’s lakes that reflect much of the more intensively developed areas not otherwise part of Dowagiac and the four villages.

Table C-1 presents the approximate proportions of the county according to property tax classifications. As the data is based on the manner in which each individual parcel is classified, the data does not distinguish between varying conditions on an individual parcel. For example, a parcel classified as agricultural may include substantial areas of woodlands and wetlands. A parcel classified as commercial may have only a portion of its acreage in commercial use while the balance (and perhaps majority) is vacant or may be under cultivation. Similarly, a parcel classified as residential may also include acreage devoted to commercial farming. It is reasonable to assume that the Table C-1 data for the residential, commercial and industrial classifications is greater than the developed acreage for such uses. The residual acreage is most commonly farmland or other open space including woodlands and wetlands.

See Existing Land Use Maps in Appendix H.

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The Table C-1 classifications can be summarized as follows:

Agriculture / Forestry: This classification includes parcels used partially or wholly for agriculture, with or without buildings, and including adjacent parcels under the same ownership that may be vacant or wooded and may include one or more agricultural buildings.

Residential: This classification includes platted and unplatted parcels, and condominiums used for or most apt to be used for residential purposes.

Commercial: This classification includes platted and unplatted parcels used for commercial purposes including wholesale, retail and service-oriented businesses, with or without buildings, and also includes parcels used as golf courses, boat clubs, ski areas, and apartment buildings or an apartment complex with more than four units. "Home occupations" do not generally have a commercial classification.

Industrial: This classification includes platted and unplatted parcels used for manufacturing and processing purposes, with or without buildings, and includes parcels used for utility sites for generating plants, pumping stations, substations, compressing stations, warehouses, rights-of-way, and the removal or processing of sand, gravel, stone or mineral ores.

Tax Exempt: This classification includes platted and unplatted parcels not under private ownership such as municipally-owned land, public schools and religious institutions.

Other: This classification includes property subject to a land division application or one which has yet to be recorded, and property classified as "developmental." "Developmental" property includes parcels of more than five acres without buildings, or more than 15 acres with a market value in excess of its value in use. The developmental classification is normally used in areas of changing use near significant population centers. The majority of the acreage included in this classification is farmland.

Pokagon Band of Potawatomi Indians: This classification of land is not tax-based and includes all land under the ownership of the Pokagon Band of Potawatomi Indians and that which is held in federal trust for the Pokagon Band. The vast majority of this land is located in Pokagon Township and approximately one-third is tax exempt (that which is held in federal trust) and the balance is taxed as described above.

Table C-1
Cass County Existing Land Use, 2012

Land Use- Land Cover	Approximate Acreage	Approximate Portion of County
Agriculture / Forestry	186,435.8	61.0%
Residential	91,915.9	30.1%
Commercial	4,880.8	1.6%
Industrial	1,986.5	0.7%
Public / Tax Exempt	11,716.5	3.8%
Pokagon Band of Potawatomi Indians	1,897.1	0.6%
Other	6,996.3	2.3%

A review of some of the more significant characteristics of land use and development in Cass County follows.

Agriculture

According to the 2007 Census of Agriculture, 58.5% of the Cass County landscape was comprised of land within a farm, totaling just over 190,000 acres and just over 1,000 additional acres since the 2002 Census. The average size farm was 235 acres and generated an average market value of products sold of \$125,214. County wide, the market value of all farm products sold in 2007 was \$101,549,000 (20th in state ranking), of which 55% was due to crop sales and the balance being livestock sales. Cass County ranked first among the state's 83 counties for acreage devoted to snap beans and second for the number and sales (\$) of hogs and pigs. The growing of corn accounted for 41% of the county's farm acreage in 2007, followed by 20% for soybeans. Farming operations are present in all areas of the county including all townships.

In an effort to better protect Michigan's farming interests, Public Act 116 of 1974 was adopted by the state and has since been amended and incorporated into the Michigan Natural Resources and Environmental Protection Act. The Act establishes a program whereby farmers can enroll their properties to gain property tax relief, provided the farmland is maintained in an agricultural/open space status. The minimum enrollment period in the program is seven years and many landowners opt to enroll for a much longer period. Many of the existing Cass County enrollments extend to year 2050 and beyond. PA 116 lands in Cass County in 2012 comprised approximately 76,000 acres, or nearly one-quarter of the entire county.

Commercial Development

Commercial development in Cass County is most evident in the business districts of Dowagiac, and the villages of Edwardsburg, Cassopolis, and Marcellus. Outside of these urban centers, commercial development is of a more scattered character, most of which is along the county's state highways and at some of the major intersections within the local townships. The vast majority of commercial development in the county addresses the consumer needs and services of the local population and individual businesses are of a comparatively small scale. County residents rely on more regional urban centers for "big box" retail centers (Meijer, Wal-Mart, Home Depot, Target and similar businesses) including Niles, South Bend, Three Rivers and St. Joseph. Approximately 1.6% of the county's acreage is classified as commercial for tax purposes, although a far lesser amount is actually used for commercial purposes as considerable portions of larger commercial parcels are not actively used for commercial purposes.

Industrial Development

Industrial development is comparatively limited in Cass County. The comparatively limited industry that is present is scattered across the county including sand and gravel extraction sites. There are several locations where small industrial centers are present, the most expansive being to the west of M-62 in Ontwa Township, just southwest of Edwardsburg. There are also concentrations of industry in Dowagiac and Cassopolis. Approximately 0.7% of the county's land area can be classified as industrial according to county assessment records. The actual acreage developed for industrial purposes, although a far lesser amount is actually used for commercial purposes as considerable portions of larger industrial parcels are not actively used for commercial purposes.

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Residential Development

Number and Growth of Dwellings. The 2010 Census recorded 25,887 dwelling units in Cass County, an 8.4% increase over the number of units in 2000 and a 14.3% increase since 1990. Somewhat similar to the population distribution in the county, just over half of the county's dwelling units are located in just one-quarter of the local municipalities – Dowagiac and the townships of Howard, Ontwa, Silver Creek and Porter. See Table C-2

Table C-2
Cass County Housing Units, 1990 – 2010
(by Number and Growth Rate)

JURISDICTION	TOTAL HOUSING UNITS			HOUSING UNIT GROWTH RATE	
	1990	2000	2010	1990 - 2010	2000 - 2010
CASS COUNTY	22,644	23,884	25,887	14.3%	8.4%
TOWNSHIPS					
Calvin	874	999	1,059	21.2%	6.0%
Howard	2,476	2,663	2,772	12.0%	4.1%
Jefferson	841	957	1,072	27.5%	12.0%
LaGrange	1,548	1,607	1,686	8.9%	4.9%
Marcellus	1,133	1,186	1,244	9.8%	4.9%
Mason	934	1,021	1,248	33.6%	22.2%
Milton	793	971	1,471	85.5%	51.5%
Newburg	765	781	869	13.6%	11.3%
Ontwa	2,404	2,653	2,984	24.1%	12.5%
Penn	1,285	1,280	1,312	2.1%	2.5%
Pokagon	896	912	931	3.9%	2.1%
Porter	2,020	2,040	2,215	9.7%	8.6%
Silver Creek	2,304	2,362	2,424	5.2%	2.6%
Volinia	557	588	614	10.2%	4.4%
Wayne	1,190	1,231	1,311	10.2%	6.5%
CITY / VILLAGES					
Cassopolis	797	780	833	4.5%	6.8%
Dowagiac	2,624	2,631	2,674	1.9%	1.6%
Edwardsburg	488	531	569	16.6%	7.2%
Marcellus	457	462	493	7.9%	6.7%
Vandalia	DNA	157	141	DNA	-10.2%

Source: U.S. Census Bureau
DNA = Data Not Available

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Housing Density: As the number of housing units in Cass County has increased, so has its housing density. The county's housing density of 52.8 units per square mile in 2010 reflected a 14.6% increase since 1990. In steep contrast, the Village of Marcellus had the greatest housing density in 2010 with 830.0 units per square mile. Also of contrast is Volina Township, the least dense area of the county with a housing density of 17.9 units in 2010. Ontwa Township reflected a housing density in 2010 of 153.7 units per square mile, a density nearly twice that of any other township. See Table C-3

Table C-3
Cass County Housing Density, 1990 – 2010
(by Number and Growth Rate)

JURISDICTION	HOUSING DENSITY (Dwellings Per Square Mile)		
	1990	2000	2010
CASS COUNTY	46.1	48.6	52.8
TOWNSHIPS			
Calvin Twp.	25.4	29.0	30.9
Howard Twp.	71.1	76.5	80.3
Jefferson Twp.	24.0	27.3	30.9
LaGrange Twp.	46.2	47.9	50.8
Marcellus Twp.	34.0	35.6	37.5
Mason Twp.	46.1	50.4	61.7
Milton Twp.	37.3	45.7	69.7
Newburg Twp.	22.1	22.6	25.2
Ontwa Twp.	123.1	135.8	153.7
Penn Twp.	38.2	38.0	39.1
Pokagon Twp.	25.9	26.4	27.4
Porter Twp.	39.0	39.4	43.0
Silver Creek Twp.	71.6	73.4	75.8
Volinia Twp.	16.2	17.1	17.9
Wayne Twp.	34.7	35.9	38.3
CITY / VILLAGES			
Cassopolis (vlg.)	NA	445.7	416.5
Dowagiac (city)	652.7	654.5	599.6
Edwardsburg (vlg.)	DNA	577.2	625.3
Marcellus (vlg.)	DNA	679.4	830.0
Vandalia (vlg.)	DNA	158.6	142.4

Source: U.S. Census Bureau

DNA = Data Not Available

Housing Vacancy: Of the 25,887 housing units in Cass County in 2010, about one in every five was unoccupied. The principal reason for the 20.4% vacancy rate was the use of the unit for only seasonal, recreational or some other occasional purpose. This factor alone accounted for 62.5% of the vacancy rate. An additional 21.0% of the vacant units were either for sale or recently sold but not occupied, or for rent or being rented but not occupied. Of those housing units occupied, 80.1% were occupied by the owner. See Table C-4.

When compared to the 7-county region as a whole and Michigan, Cass County reflected a substantially higher vacancy rate and owner-occupancy rate. The higher vacancy rate was a result of the unusually high number of dwellings in Cass County that are used for seasonal/recreational purposes only.

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TABLE C-4
Housing Occupancy Comparison, 2010
(by percent and number)

	CASS COUNTY	7-COUNTY REGION	STATE OF MICHIGAN
TOTAL HOUSING UNITS	25,887 100%	469,995 100%	4,532,233 100%
OCCUPIED	26,604 79.6%	409,753 87.2%	3,872,508 85.4%
VACANT	5,283 20.4%	60,242 12.8%	659,725 14.6%
REASON FOR VACANCY			
For seasonal, recreational or occasional use only	3,303 62.5%	19,608 32.5%	263,071 5.8%
For sale or sold but not occupied	623 11.8%	9,788 16.2%	95,058 2.1%
For rent or rented but not occupied	486 9.2%	16,578 27.5%	148,371 3.2%
Other	573 2.3%	14,268 23.8%	153,275 3.4%
OWNER-OCCUPIED UNITS	16,508 80.1%	286,528 69.9%	2,793,342 72.1%
RENTER-OCCUPIED UNITS	4,096 19.9%	123,225 30.1%	1,079,166 27.9%

Source: 2010 U.S. Census

Housing Types: Nearly all dwellings in Cass County are single family detached units and in 2010, this principal housing option accounted for 93.4% of the housing. 84.8% of these dwellings were constructed on-site and the balance was comprised of mobile homes (8.6%). Buildings containing two dwellings, with either separate or shared entrances, accounted for an additional 2.1% of the housing market and the balance (4.5%) were comprised of units within buildings containing three or more units. See Table C-5.

As compared to the 7-county region and Michigan as a whole, Cass County reflects an approximately 17% higher proportion of single family detached dwellings built on site and an approximately 59% higher proportion of mobile homes. This is due in large part to the lack of major urban centers in Cass County that most easily accommodate multiple family housing densities.

Regional Share: Cass County's housing in 2010 represented 5.5% of the 7-county region of which it is part. Cass County comprised the smallest portion of the region's housing units while St. Joseph County (IN) had the greatest number of units – approaching five times that of Cass County. Just as Cass County's population growth has lagged during the past twenty years, its 14.6% increase in units between 1990 and 2010 was the second lowest in the region, to Berrien County's 10.6%. In contrast, Elkhart County (IN) has witnessed the highest proportional increase in the number of units during this same period – 29.2%. See Table C-6

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TABLE C-5
Household Type Comparison
(by number and percent)

	CASS COUNTY	7-COUNTY REGION	STATE OF MICHIGAN
1-UNIT DETACHED	21,828 84.8%	341,595 72.7%	3,247,891 71.7%
1-UNIT ATTACHED	253 1.0%	11,748 2.5%	206,923 4.6%
2 UNITS	272 1.1%	13,477 2.9%	127,125 2.8%
3 OR 4 UNITS	268 1.0%	15,920 3.4%	118,966 2.6%
5 TO 9 UNITS	409 1.6%	20,900 4.4%	190,086 4.2%
10 TO 19 UNITS	224 0.9%	18,704 4.0%	165,199 3.6%
20 OR MORE UNITS	276 1.1%	21,127 4.5%	217,847 4.8%
MOBILE HOME	2,222 8.6%	24,384 5.2%	254,755 5.6%
BOAT, RV, VAN, ETC.	3 0.0%	49 0.0%	868 0.0%

Source: U.S. Census Bureau

Table C-6
Regional Housing Units, 1990 – 2010
(by Number and Growth Rate)

JURISDICTION	TOTAL HOUSING UNITS			HOUSING UNIT GROWTH RATE	
	1990	2000	2010	1990 - 2010	2000 - 2010
BERRIEN CO.	69,532	73,445	76,903	10.6%	4.7%
CASS CO.	22,644	23,884	25,887	14.3%	8.4%
ELKHART CO. (IN)	60,182	69,791	77,767	29.2%	11.4%
KALAMAZOO CO.	88,955	99,250	110,007	23.7%	10.8%
ST. JOSEPH CO.	24,242	26,503	27,778	14.6%	4.8%
ST. JOSEPH CO. (IN)	97,956	107,013	114,849	17.2%	7.3%
VAN BUREN CO.	31,530	33,975	36,785	16.7%	8.3%
7-COUNTY REGION	395,041	433,861	469,976	19.0%	8.3%
MICHIGAN	3,847,926	4,234,279	4,532,233	17.8%	7.0%

Source: U.S. Census Bureau

LAND DIVISION PATTERNS

Land division patterns in Cass County can be divided into three principal forms. The oldest form is that of farm homesteads. During the early half of the 1900s, large parcels of 40 to 320 acres and more characterized the predominant land division pattern in the county. The original homes were occupied, in part, by farming families including those in the timber industry. It was rare to come upon a parcel less than 40 acres in size except in the immediate proximity of the county's early settlement areas. Many of these original homesteads are still evident today.

The second principal form of land division is the one to ten-acre parcels fronting on the townships' section-line and similar roads not otherwise part of platted subdivisions. This land division pattern evolved as many of the original large tracts in the county were incrementally split. This land division pattern began to principally appear during the 1950s and 1960s and is now very visible throughout the county. This trend of parcel splitting along a township's section-line roads is commonly referred to as *strip development*, and need not be limited to large parcels. This development pattern has been of increasing concern in the transportation and land use planning arena due to its impacts on traffic safety, congestion, and farmland and rural character preservation efforts.

The third principal form of land division in Cass County is that of platted subdivisions and site condominiums. Platted subdivisions and site condominium subdivisions consist of multiple home sites (though may be for non-residential use) established as a unified development project. Platted subdivisions are established under the Land Division Act (Public Act 288 of 1967, as amended) and site condominium subdivisions are established under the Condominium Act (Public Act 59 of 1978, as amended). Platted subdivisions and site condominiums dedicated to single family dwellings are visibly similar to one another – the principal difference being the form of ownership of the development sites within each.

Platted subdivisions and/or site condominiums are present in all of the county's local municipalities, though at varying degrees. Nearly all of the residential areas of Dowagiac and the four villages, and the residential development present along so many of the county's lakes, is comprised of platted subdivisions and site condominiums. As would be expected, these forms of development are also most evident in those townships that have witnessed increased suburbanization such as the townships of Howard, Milton and Ontwa. Lot sizes in most of the county's subdivisions and site condominiums are typically one acre or less and some, developed prior to comprehensive health regulations including those addressing potable wells and on-site sewage disposal, are comprised of lots that are less than 7,000 sq. ft. (particularly around the lakes).

Appendix D

ENVIRONMENTAL FEATURES

Introduction

The environmental features of an area can have an important impact on shaping growth, development and preservation policies. The presence of wetland can present severe challenges for certain land uses and provide important wildlife habitats. Soil conditions can impact the agricultural value of property and on-site construction practices. The presence of rivers, streams, lakes and other water resources can be magnets for recreation and development while, at the same time, are vulnerable to environmental degradation. This part of the Master Plan provides an overview of county-wide environmental features.

Geology & Topography

During the Paleozoic era of geological history, Cass County and the state as a whole was inundated by successive warm, shallow seas during which large amounts of sediment were deposited. These deposits subsequently lithified to form bedrock. Cass County exhibits two types of bedrock which generally interface with each other along an irregular line extending from its northwest corner to its southeast corner. The northeastern half of the county is characterized principally by Coldwater Shale and the southwester half is characterized principally by Ellsworth Shale. Both bedrocks have shale as their primary component with interbedded siltstone and sandstone. Coldwater Shale also includes occurrences of dolomite and limestone.

The Ice Age brought four successive continental glaciers across the Great Lakes area. As these ice sheets moved southward from Canada, they scoured and abraded the surface of the land leaving behind deeper valleys and more rounded hilltops. The advancing glaciers carried large quantities of rock materials scraped and gouged from the land's surface. These materials were then deposited during the melting of the ice to form drift materials covering the bedrock below. While the depth to bedrock exceeds 800 feet in some parts of Michigan, bedrock depth in Cass County ranges from approximately 100 to 600 feet although the majority of the county exhibits depths of 200 to 400 feet. The shallower depths to the bedrock are located in the county's northwest corner (northwest half of Silver Creek Township) and in the county's south central region including portions of Mason, Ontwa and Calvin Townships. The greatest depths are found along a diagonal line along portions of Howard and LaGrange Townships and nearly all of Volinia Township.

The township's topography can be described as level to generally rolling. Approximately one-third of the county reflects grades of less than 3% and three-quarters of the county reflects grades of 0% to 6%. Approximately 20% of the county reflects grades of greater than 6%, of which approximately half is characterized by grades of 12% and greater.

The character of an area's geology and topography can have bearing on development and land use planning. It is generally recommended that development be restricted in intensity where grades exceed approximately 12%, and be strongly discouraged where grades exceed 18%. As grades increase in severity, significant challenges arise for septic systems and there is an increased potential for soil erosion and sedimentation of water courses and wetlands. Construction costs frequently increase as well. Geology can also impact development within the context of the availability of adequate potable water (where public water service is not available). This issue is discussed under "Groundwater."

Drainage & Water Resources

Cass County abounds with lakes. The county is home to approximately 165 lakes which occupy 3.6% of the county's area, or 18.3 square miles. The lakes are scattered throughout nearly all areas of the county and while they vary considerably in size, approximately 60 approach 40 acres or more in size and nearly 20 approach 200 acres or more in size. See Water Resources Maps, Appendix H.

The largest of the county's lakes is Diamond Lake, centrally located just east of Dowagiac in Penn Township and extending into Calvin and Jefferson Townships. Diamond Lake covers 1,020 acres with depths approaching 65 feet. The next largest lakes are substantially smaller than Diamond lake. Juno Lake occupies approximately 560 acres and is located at the convergence of the townships of Jefferson, Calvin, Ontwa and Mason. Indian Lake in Silver Creek Township occupies approximately 485 acres. The county's many lakes play a critical role in collecting and storing runoff and facilitating drainage in the county.

County-wide drainage is also facilitated by a network of rivers, streams, creeks and intermittent water courses, the most significant of which are identified below:

The Dowagiac River enters Cass County in Wayne Township and flows southwest through Silver Creek and Pokagon Townships before exiting the county in the northwest tip of Howard Township. The Dowagiac River is the county's longest drainage course, flowing through the northwest portion of the county for approximately 18 miles,

Dowagiac Creek flows southwest from Bunker Lake in Volinia Township into Lake LaGrange in LaGrange Township before heading northwest through Dowagiac and emptying into the Dowagiac River several miles further west. The Dowagiac Creek flows through the northwest portion of the county for approximately 18 miles.

Christiana Creek begins near Wildcat Lake in the northeast corner of Penn Township and flows south through Vandalia and southwest through Calvin Township before emptying into Painter Lake in the southeast tip of Jefferson Township. The creek flows approximately 17 miles through the central and south-central region of the county.

Pokagon Creek begins in northwest LaGrange Township near Southwestern Community College and flows southwest through LaGrange Township and into the southeast tip of Pokagon Township and the northeast quarter of Howard Township, where it then flows northwest through Pokagon Township before emptying into the Dowagiac River several miles further west. The creek flows approximately 13 miles through the west central region of the county.

The St. Joseph River comprises approximately 3.5 miles of the county's southeast border. Though its presence in the county is limited, it is perhaps the most significant of the county's water courses due to its regional presence. The St. Joseph River begins in Hillsdale County and flows through the counties of Calhoun, Branch and St. Joseph before exiting Michigan at the southeast tip of Cass County, and reappears in Michigan in Berrien County where it empties into Lake Michigan. All of Cass County's lakes, rivers, creeks and streams ultimately flow into the St. Joseph River.

Wetlands also comprise a critical part of Cass County's drainage and water resources, and are discussed later in this section.

Lands abutting or in close proximity to drainage courses, such as streams, ponds, and lakes, are subject to flood conditions where the drainage courses do not have the capacity to accommodate the rate of runoff from a single heavy rainfall or numerous lighter rainfalls over a relatively short period of time. Floods and long periods of high water have not been serious conditions in Cass County. This is due in part to the comparatively high percolation rates of the county's soils and its network of drainage courses and wetlands that carry and store runoff. The National Flood Insurance Program identifies areas designated as potential flood prone areas and property that is located within a 100-year or 500-year flood plain. Those areas most vulnerable to flooding are typically within the comparatively narrow corridors of the principal water courses, such as the Dowagiac River and Dowagiac Creek, and the more wetland areas adjacent to the water courses. See Floodplains Map, Appendix H.

Improperly managed land development practices can impact flood conditions both locally and in the communities downstream. Development within flood plains is nearly always discouraged. The threat to property and life is heightened as are typically construction costs associated with elevating buildings and flood proofing. Floodplains are often comprised of sensitive environmental resources including woodlands and wetlands, and are typically reserved for open space uses such as parks, conservation areas, and farming.

Ground Water

As runoff flows across land surfaces and travels through drainage courses, a portion of the runoff seeps into the ground and collects in great quantities in the underlying soils and deeper bedrock. These reservoirs of water are referred to as "aquifers" and serve as the sources of drinking water for most of the residents of Cass County. Nearly all potable wells in Cass County draw water from the drift material above the deeper bedrock below due to the limited water-bearing potential of the bedrock shale. The overall quality of Cass County groundwater is considered to be good. Instances of high iron and calcium are common but these conditions are not typically considered to be health concerns but, rather, aesthetic or secondary concerns due to potential staining of appliances and clothes (iron) and deposits in plumbing systems (calcium). There are sporadic instances of contaminated sites in the county due to leaking underground storage tanks or other contamination sources, and pose varying levels of threat to ground water resources. The Michigan Department of Environmental Quality keeps a record of all known contamination sites and is available to the public.

Aquifers can be "*confined*" or "*unconfined*" systems. Confined systems have an impermeable soil layer (typically clay) above them which acts to confine the aquifer and protect it from contaminants seeping into the subsurface above the confining soil layer. These contaminants may be a result of petroleum products, improperly disposed household liquids, poorly operating septic drain fields, floor drains that discharge to the outdoors, storage of hazardous and toxic substances without the necessary safeguards, improper disposal of fuels and oils, excessive use of fertilizers, and improper disposal of wastes by industrial, commercial and residential activities. Unconfined systems do not have this protective clay layer and are much more prone to contamination. Even confined systems can be contaminated due to hazardous material entering the groundwater due to groundwater flows from nearby non-confined aquifers. While there are confining layers of clay in portions of the county, many areas are void of such confining layers. Shallow wells in the absence of a confining layer are particularly vulnerable to groundwater contamination. The protection of groundwater quality requires appropriate land use management.

Woodlands and Wetlands

Cass County is comprised of approximately 40,000 acres of wetlands, making up nearly 15% of the county's area. Approximately half of the wetlands are of a wooded character including species such as oak, red maple, and willow. Approximately one-quarter of the wetlands are of an emergent character dominated by herbaceous plants with submerged roots including cattails and various grasses. The balance of the wetlands are of a scrub/shrub character except for limited instances of aquatic beds comprised principally of plants that grow on or below the surface of the water including algae and mosses.

Wetlands are present throughout the county but are far more prevalent in the county's northwest quarter and, in particular, along the Dowagiac River corridor in Wayne, Silver Creek and Pokagon Townships. Like the Dowagiac River corridor, the majority of the county's wetlands are closely associated with its open waters including segments along streams, creeks, and lakes. As a result, many of the wetland areas are part of extensive elongated systems stretching for miles. See Water Resources Maps, Appendix H.

The fabric of watercourses and wooded and non-wooded wetlands, and upland forested areas, is important because of the vital role these mixed resources play in flood control, runoff purification, groundwater recharge, wildlife habitats, recreational opportunities, and supporting the rural character of the county. Wetlands are environmentally sensitive resources and can experience degradation and destruction due to changes in water levels, erosion and sedimentation, filling, dredging, and draining. The degradation or pollution of a wetland area can have a destructive impact upon wetlands and related woodland resources distances away due to the frequent physical linkages between these resources. In addition to the environmental constraints wetlands pose for development, they present severe physical constraints for land development due to flooding and instability of soils.

Because of the important environmental role of wetlands, they are protected by the Michigan Environmental and Natural Resources Protection Act, Part 303. Wetlands are regulated by the state if they meet any of the established criteria including, but not limited to, wetlands connected to one of the Great Lakes or located within 1,000 feet of one of the Great Lakes, wetlands located within 500 feet of an inland lake, pond, river or stream, and other wetlands of five acres or more in area. The law requires a permit be obtained from the state for depositing fill in a wetland, dredging or removing soil from a wetland, constructing or operating a use in a wetland, or draining surface water from a wetland. The Michigan Department of Environmental Quality will not issue a permit unless it finds, in part, that there would be no unacceptable disruption to aquatic resources, and that the proposed activity is wetland dependent or no feasible and prudent alternatives exist.

Soils

The U.S. Department of Agriculture, Natural Resources Conservation Service, has prepared a soil survey for Cass County. The survey reveals that nearly the entire county is comprised of soils of a loam or sand character. Approximately one-third of the county is characterized by loamy soils and an additional third is character by sandy loam soils. Another one-fifth of the county exhibits loamy sand soils. The remainder is comprised of muck soils – soils consisting of well decomposed organic material to the point that plant structures cannot be readily identified. Muck soils are frequently evident in wetland areas.

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The character of soils can have a profound impact on the suitability of development with regard to groundwater contamination, buckling and shifting of foundations and roads, erosion, on-site sewage disposal, and agricultural productivity. The Natural Resources Conservation Service has identified specific individual soil units throughout the county based upon the characteristics of the upper soil layers (approximately five feet in depth).

According to the Natural Resources Conservation Service, nearly three-quarters of the county is characterized by soils that present “severe” conditions to on-site sewage disposal (septic systems). A primary concern in this regard is the soil’s ability to absorb and break down the leachate from the septic drain fields before it reaches underground water supplies. The soils are rated as “severe” due to such conditions as surface ponding, soil wetness, and the poor filtering characteristics. Many of the county’s soils permit percolation of the leachate from the drain field but do not provide adequate filtering features as the leachate seeps into the soil. This results in increased vulnerability for surface and ground water contamination. Limitations on septic systems due to soil conditions can often be overcome by special construction measures that may increase normal construction costs, including the use of mounded systems where the drain field is raised to allow the depositing of more effective soils.

The Van Buren County and Cass County District Health Department is responsible for issuing permits for on-site sewage disposal. A permit will not be issued unless all Department requirements have been met including a back-up area should the initial drain field fail. According to current standards, home sites as small as one-half acre, with beneficial soils, frequently begin to present challenges for meeting department standards.

The provision of sanitary sewer to those areas designated for growth and development greatly reduces the risk of contamination of the county’s water resources by ensuring the safe disposal of human waste.

It should be noted that while a site may be classified by the Natural Resources Conservation Service as presenting a limitation to septic systems and building construction, on-site investigation may show the classification to be less than fully accurate and/or show that the deeper soils (more than five feet deep) present different characteristics than the upper layer soils and thus, varying limitations. On-site investigations should be carried out before specific land development projects are initiated.

Much of Cass County is characterized by soils that are very supportive of farming. Approximately 51% of the county’s soils are classified as “prime farmland.” See Prime Farmland Maps, Appendix H. The Natural Resources Conservation Service generally defines *prime farmland* as land that is, under proper management, particularly well suited to food, feed, forage, fiber, and oilseed crops and is capable of producing sustained high yields. In some cases, this classification is based on the condition that measures are taken to ensure adequate drainage. All townships in the county include prime farmland soils that occupy approximately one-third or more of the community’s area. Those townships where prime farmland soils occupy approximately 60% or more of the community’s area are Calvin, Jefferson, LaGrange, Mason, Ontwa, Penn, Pokagon, Porter and Volinia.

Appendix E

COMMUNITY FACILITIES and SERVICES

Introduction

This Chapter provides an overview of the principal community facilities and services in Cass County. An awareness of the general scope of community facilities and services is important. The type and extent of community facilities and services can shape perceptions about the desirability of the county and its local municipalities as a place of residence and business, and shape policies for the proper accommodation of growth, development and preservation interests. See County Public Facilities Map, Appendix H, for the location of many of the county's public facilities.

Administrative Buildings and Services

City, Village and Township Halls

Each of the fifteen townships, along with Dowagiac and the county's four villages, maintains an administrative hall at which government administration is performed. These facilities typically include the offices of various elected officials and support staff and departments, in addition to public meeting rooms.

Cass County Building

Located at 120 N. Broadway Street in the Village of Cassopolis, the Cass County Building provides office space for a variety of governmental functions including the following:

- **Administrator / Controller:** Executes the policies and directives of the County Board of Commissioners, oversees the day-to-day operations of county government activities, and manages fiscal matters for the county.
- **Adult Probation:** Administration of probation services through the Michigan Department of Corrections.
- **C.A.S.A. / Court Appointed Special Advocate:** Provides factual, independent and objective information about the status of children involved in child protective proceedings (appointed by the Family Court Judge), complimenting the duties of other professionals involved in neglect and abuse cases.
- **Clerk Register:** Serves as the clerk for numerous entities such as the Circuit Court, Board of Commissioners, Election Commission, Jury Board, Gun Board, Plat Board, Transportation Authority, and Building Authority, and serves as Chief Election Officer; maintains vital records; and issues marriage licenses, birth and death certificates, assumed business names and partnership certificates, concealed gun permits, veteran discharge records, notary commissions, genealogy records and voter registration records.
- **Drain Commissioner:** See discussion on Environmental Services in this Appendix.
- **Equalization Department:** Equalizes the real and personal property assessments of all assessing units in both Cass and St. Joseph County, and assists local units of government concerning assessment and taxation administration.

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- **Information Systems Department:** Provides information services to county and local governmental units and departments including mapping services.
- **MSU Extension Service:** Provides informational resources to individuals, communities and businesses to improve quality of life including in such areas as agriculture, health, safety, natural resources, sustainability, and community planning.
- **Treasurer:** Serves as the custodian of all monies with responsibility for investing and maintaining an adequate cash flow, collects delinquent real property taxes, maintains debt service accounts for bonded indebtedness of the county, certifies warranty deeds, and administers the sale of dog licenses.
- **Veteran Affairs / Counselor:** Assists *veterans* and their families in obtaining county, state, and federal benefits to which they are entitled.

Cass County Complex

In recent years, Cass County has consolidated many of its services and facilities in the northwest corner of the Village of Cassopolis along the south side of M-62.

The Law and Courts Building houses the following:

- **43rd Judicial Circuit/Family Court**
- **4th Judicial District Court**
- **Friend of the Court**
- **Probate Court**
- **Prosecuting Attorney**

Four other facilities comprise the complex and include:

- **Cass County Health Department.** See discussion on Environmental Services in this Appendix.
- **Cass County Department of Human Services.** See discussion on Human Services in this Appendix.
- **Cass District Library.** Cass District Library serves the Cass County townships of Calvin, Howard, Jefferson, LaGrange, Mason, Milton, Newberg, Ontwa, Penn, Pokagon, Porter, and Volinia. Aside from the main branch/office in Cassopolis, branches are also located in Edwardsburg, Howard Township, and Mason Township. The District also operates an affiliated computer learning center at the Cass County Council on Aging in Cassopolis.
- **Cass County Sheriff's Department.** See discussion on Emergency Services in this Appendix.
- **Cass County Animal Control Department.** The Cass County Animal Control Department provides for the enforcement of the Cass County Dog Ordinance and State statutes relating to dogs and other animals including the rescue and care of dogs and cats, educational services, protection of the public, prevention of animal cruelty, and the sheltering of homeless and owner-released dogs and cats while attempting to locate owners or find homes for unwanted animals.

Environmental Services

Cass County Drain Commissioner

Housed in the Cass County Building in Cassopolis, the Drain Commissioner is responsible for the administration of the Drain Code including the construction and maintenance of drains, determining drainage districts, apportioning costs of drains among property owners, receiving bids and awarding contracts for drain construction, and approving drainage plans in association with development projects including the administration of the Cass County Soil Erosion and Sedimentation Control Program.

Cass County Conservation District

The Conservation District's mission is to protect and enhance Cass County's natural resources by providing educational and technical services to all land users through sound land use management practices. The County Conservation District is devoted to protecting the County's water quality, forestry and wildlife resources. The offices of the County Conservation District are located at 1127 East State Street in Cassopolis.

HEALTH and HUMAN SERVICES

Cass County Health Department

Housed at the Cass County Complex at 201 M-62 in Cassopolis, the Cass County Health Department is part of the Van Buren and Cass County District Health Department. The Department provides a wide range of health and environmental promotion and assessment services including clinical services, dental services, substance abuse, and environment health including the issuance of well and sewage disposal permits. Within Cass County, the Department maintains the Cassopolis office in addition to a Dowagiac office at 520 Main St.

Cass County Department of Human Services

Operated under the Michigan Department of Human Services at the Cass County Complex at 325 M-62 in Cassopolis, the Department offers assistance to persons and families on a temporary basis during times of need, including food assistance, financial assistance, child care, medical assistance, rehabilitation services, and children and adult services.

Cass County Council on Aging / Senior Center

The Cass County Council on Aging is a County supported agency providing various activities, programs and assistance to senior residents of Cass County. The agency is located in the Lowe Center at 60525 Decatur Road in Cassopolis and also operates a facility (Front Street Crossing) at 227 S. Front St. in Dowagiac. The agency strives to provide support for seniors in their effort to remain in their own home and maintain independence, health, and dignity. Services include adult day services including fitness facilities, food services including home delivered meals, home care, transportation and other support services.

Borgess-Lee Memorial Hospital

Located in the City of Dowagiac (420 W. High St.), the Borgess-Lee Memorial Hospital is a 25-bed care facility licensed by the State of Michigan and accredited by the Joint Commission on Accreditation of Healthcare Organizations. The facility offers a wide range of services including emergency services, surgical services, cardio-pulmonary services, orthopedic services, laboratory support, radiology, rehabilitative services, and education and health promotion services.

The Pokagon Band Department of Health Services

The Pokagon Band Department of Health Services is operated by the Pokagon Band of Potawatomi Indians, with a medical clinic located at 57392 M-51 south of Dowagiac. The Department serves as a primary care provider for the Native American population in Allegan, Van Buren, Berrien and Cass counties as well as a number of counties in Indiana. Services include behavioral health, community health, diet and nutrition, and medical services.

Cass County Medical Care Facility

The Cass County Medical Care Facility is located on a 140-acre farm southwest of Cassopolis at 23770 Hospital Street. Within a rural backdrop, the facility provides physical, occupational, speech and restorative therapy services on a short and long term basis. The facility offers counseling to residents and their families and residents may participate in classes, day trips, and social events.

TRANSPORTATION**Cass County Road Commission**

The Cass County Road Commission (CCRC) is responsible for maintaining the public county road system not otherwise part of the state highway system or within Dowagiac and the county's four villages. The CCRC operates an office and service facility at 340 N. O'Keefe Street in Cassopolis. The CCRC is responsible for the construction and maintenance of approximately 1,000 miles of county primary and local roads. At the direction of the townships, the CCRC also constructs and improves local roads (as financial resources permit). The work of the CCRC includes not only snow removal and road repair, but also the upgrading and building of new and existing roads to current standards. The CCRC is one of the few road commissions in Michigan to have its own asphalt operations including its own sand/gravel extraction facility. See Appendix B for a review of the Cass County road network and other county transportation features.

UTILITIES**Public Water and Sewer**

Limited areas of Cass County are served by public sewer and water service. These areas are principally limited to Dowagiac and the county's four villages. Public sewer and/or water in each of the county's townships are non-existent or otherwise very limited. Where sanitary services has been extended to township areas, it is typically limited to specific lake areas such as, but not limited to, Barron Lake in Howard Township, Indian Lake and the Sister Lakes area in Silver Creek Township, the Finch Lake area in Volinia Township, the lakes of Pine, Hemlock, Saddlebag and Fish in Marcellus Township, Diamond and Donnell Lakes in Penn Township, and the Christiana/Juno lakes area in Mason and Ontwa townships. Sewer and water services are provided by local municipalities through agreements with sewer/water authorities operating within the county. Ontwa Township has recently initiated efforts to establish sewer service.

Electricity and Natural Gas Service

All of Cass County receives electrical power from the Indian-Michigan Power Company and Midwest Energy Company. Nearly all of Cass County receives natural gas service from the SEMCO Energy Gas Company. Marcellus Township receives gas service from Consumers Energy Company. Even in those communities where natural gas service is present, service may not extend to many if not the majority of households within the community. Volinia Township does not have access to natural gas service.

PUBLIC SAFETY

Police Protection

Cass County Sheriff's Department: The Cass County Sheriff's Department provides emergency services county-wide. These services include road patrols; the investigation and enforcement of state and local laws in association with crimes against persons and property and violations of the Motor Vehicle Code; operation of the county's 911 dispatch system; and the support of emergency responders and the local citizenry in association with efforts to prepare for, respond to and recover from emergencies and disasters.

Cass County Central Dispatch (Emergency 911) System: Operated by the Cass County Sheriff's Department, the Cass County central dispatch system is located on M-62 north of Cassopolis. The system is operated by a full-time director and staff, providing central dispatching of all law enforcement, fire, and medical services within the county.

Michigan State Police Department (MSPD): The MSPD does not operate a post in Cass County, but the county receives state police services through the Niles Post in Berrien County. There are two other State Police posts in adjacent counties -- the White Pigeon post in St. Joseph County and the Paw Paw Post in Van Buren County.

The MSPD is generally responsible for enforcing the criminal and traffic statutes of the state. The typical citizen is most aware of its presence in association with traffic enforcement along the county's state highways but the Department's efforts extend far beyond state highway monitoring. The MSPD maintain numerous divisions as part of its enforcement efforts including, but not limited to, a Traffic Safety Division; Special Operations Division including an Aviation Unit, Canine Unit, Underwater Recovery Unit, and the Emergency Support Team; a Forensic Science Division including laboratories for crime scene and 'post-blast' investigations, drug analysis, document examination, polygraph testing, finger print examination, toxicology and blood/alcohol analysis, firearms examination, and arson evidence analysis; and a Training Division. The MSPD is responsible for providing protection services to the state governor and the state capitol complex.

Local Police Departments: As previously noted, the Cass County Sheriff's Department provides emergency services county wide and nearly all local municipalities rely on the department for police services (in addition to state police as may be needed). There are only *four* local municipal police departments operating in Cass County – the Cassopolis, Dowagiac, *Silver Creek Township*, and Ontwa Township-Edwardsburg police departments. The Pokagon Band provides support police services throughout the county as well. Some of the other municipalities have hired off-duty police officers on a part-time basis.

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Fire Protection

There are eleven local fire departments in Cass County. These fire departments, collectively, provide fire protection services across the county. Most of the departments provide service to multiple municipalities and/or portions of multiple municipalities. The table below identifies the fire departments along with the approximate area and population served by each. Not included in the table is the fire authority currently being formed by Cassopolis and the townships of Jefferson and LaGrange.

Fire Department (FD)	Approximate Area Served (Square Miles)	Approximate Population Served	Approximate Number of Fire Fighters (Volunteer/Paid)
Cassopolis FD	24	4,260	21
Dowagiac FD	13	7,900	16
Edwardsburg FD	63	8,000	31
Howard Township FD	36	7,500	23
Indian Lake FD	25	4,000	30
Marcellus FD	81	5,160	55
Newberg Township FD	81	1,900	23
Pokagon FD	25	2,500	16
Southeast Public Safety Authority (Mason/Porter Townships area)	65	5,210	30
Penn Township FD	72	5,000	14
Wayne Township FD	71	3,800	18

Source: State of Michigan, Dept. of Licensing and Regulatory Affairs

EDUCATION

School Districts

Cass County is served by nine different public school districts. The table below identifies the school districts serving Cass County in addition to the principal areas served by each and their approximate total enrollment.

School District	Principal Cass County Areas Served	Approximate Enrollment
Brandywine Community Schools	Western portions of Milton Twp.	1,500
Cassopolis Public Schools	Cassopolis and the townships of Penn, Calvin, Jefferson, and LaGrange.	1,300
Constantine Public Schools	Porter Township	1,500
Decatur Public Schools	Wayne and Volinia Twps.	1,100
Dowagiac Union School District	Dowagiac and townships of LaGrange, Pokagon, Silver Creek and Wayne.	2,600
Edwardsburg Public Schools	Edwardsburg and townships of Howard, Jefferson, Ontwa, Mason, and Milton.	2,700
Marcellus Community Schools	Marcellus and townships of Volinia, Marcellus and Newberg.	1,000
Niles Community School District	Majority of Howard Twp. and parts of SW quarter of Pokagon Twp.	4,100
White Pigeon Community Schools	Porter Township	900

Southwestern Michigan College (SMC)

Founded in 1964 by a number of Cass County residents, SMC has developed two modern campuses – a 240 acre campus outside the Dowagiac and approximately 5 acres in the Niles area. Originally established to provide courses and curricula for students who wish to pursue their first two years of a four-year degree at the school before transferring to a four-year college or university, SMC now also offers a limited number of Baccalaureate degree programs in conjunction with some of the state's four-year institutions. SMC also offers occupational skills training in numerous technical, business and health care fields and offers more than 30 Associates Degrees. SMC is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools and is also a member of the American Association of Community Colleges. There are approximately 3,300 undergraduate students at the college's two campuses.

RECREATION and OPEN SPACE FACILITIES

Cass County

The Cass County Parks Commission operates seven parks within the county, offering a variety of natural resource-based recreational opportunities for residents and visitors.

Dr. T K Lawless Park: Comprised of a 720-acre nature preservation area, Dr. T. K. Lawless Park is located on Monkey Run Road along M-60, nine miles east of Cassopolis, on M-60 and Lewis Lake Road. The park provides a variety of outdoor activities including hiking and biking trails, group campsites, fishing and sports fields.

Fred Russ Forest Park: Located within the 580-acre Fred Russ research forest (operated by Michigan State University) on Marcellus Highway, eight miles east of Dowagiac in Volinia, this 13-acre natural resource area is adjacent to Dowagiac Creek and includes picnic facilities, play equipment, fishing, horseshoe pits, canoe landing, rustic restrooms, and over four miles of hiking, equestrian, and cross-country trails.

Arthur Dodd Memorial Park: Located on Creek Road, five miles northeast of the City of Niles, this 51-acre park is located along the Dowagiac River and includes facilities devoted to picnicking, play equipment, canoe landing, fishing, horseshoes, hiking trails, and fishing.

Veteran's Memorial Park: This special-use park is located on M-62 just west of Cassopolis and four miles southeast of the City of Dowagiac. This small park is well shaded with benches.

Stevens Lakeside Memorial Park: This two-acre park provides picnic facilities and a beach along the north side of Little Fish Lake in Volinia Township, in addition to public access to the lake for swimming and fishing.

Henry Sears Boat Launch: This mini- park serves as a boat launch along the south side of Birch Lake in Porter Township.

Harmon Park East: This mini- park provides public swimming access along the Shavehead Lake peninsula in Porter Township.

Persons interested in a more detailed accounting of county park facilities, and other recreation opportunities in the county, and proposed improvements to the county park system, are encouraged to review the 2013 – 2017 Cass County Recreation Plan prepared by the Cass County Parks and Recreation Department.

Michigan Department of Natural Resources (DNR)

Crane Pond State Game Area: The State of Michigan maintains the Crane Pond State Game Area (SGA). The SGA occupies approximately 4,100 acres in Newberg Township, comprised of approximately eight land holdings throughout the township including along several lakes. The facility is available for hunting, hiking, boat launching and other interpretive activities.

Boat Launches: The DNR maintains 21 public boat launch sites throughout Cass County:

- | | |
|---|------------------------------|
| • Big Fish Lake | • Paradise Lake |
| • Chain Lake | • Stone Lake |
| • Corey Lake | • Belas Lake |
| • Dewey Lake | (Crane Pond State Game Area) |
| • Diamond Lake | • Bogart Lake |
| (access requires boaters to purchase an | (Crane Pond State Game Area) |
| annual \$24 launch access permit or a \$6 | • Forked Lake - no fish |
| daily permit, available at the site). | (Crane Pond State Game Area) |
| • Donnell Lake | • Fox Lake - no fish (|
| • Dowagiac Creek | (Crane Pond State Game Area) |
| (at the Arthur Dodd Memorial Park) | • Kirk Lake |
| • Driskels Lake | (Crane Pond State Game Area) |
| • Harwood Lake | |
| • Hemlock Lake | |
| • Juno Lake | |
| • Long Lake | |
| • Magician Lake | |
| • Mill Pond | |
| (at the Dowagiac Heddon Memorial) | |

The three launch facilities that comply with the accessibility requirements of the Americans with Disabilities Act are Diamond Lake, Juno Lake, and Magician Lake.

Appendix F

ECONOMIC PROFILE

Introduction

This Appendix provides an overview of several economic aspects of Cass County. An awareness of these elements has implications on efforts and strategies to improve the economic stability of the county and the economic well-being of its residents including services for populations in need.

Labor Force

According to the U.S. Census (American Community Survey, 2007 – 2011), there were approximately 25,624 county residents of sixteen years of age or older in the labor force. This was 61.7% of all persons 16 years of age and over. Approximately 9.7% of those in the labor force were unemployed. Nearly all employed persons were part of the civilian labor force, with less than 0.1% in the armed forces. Approximately 3.5% of those working worked at home, though there was considerable variation across the county. While only 0.2% of workers in Howard Township worked out of their home, 8.1% of the workers in Penn Township worked from their home. It is generally anticipated that the proportion of persons working from their place of residence will increase as technology continues to make advances that accommodate the home as an effective work place.

For the many that commuted to work, the average travel time was 25.2 minutes – 1.3 minutes longer than the average commute for the state as a whole. Again, there was considerable variation across the county in this regard. While Dowagiac workers commuted an average of 20.2 minutes to work, Calvin Township workers commuted an average of 32.0 minutes to work. This is a reflection of the increased local employment opportunities in Dowagiac – the county's principal employment center.

Employment by Industry

The Census Bureau divides employment into 13 industries. Three of those industries accounted for nearly 58% of the employment of the county's civilian work force (See Figure F-1):

25.9%	Manufacturing:
22.0%	Education Services, Health Care and Social Services:
9.9%	Retail Trade

These same three industries accounted for 52% of the civilian labor force's employment state-wide, with the principal difference being that Cass County had 50% greater employment in manufacturing. Cass County employment in the agriculture, forestry, fishing, hunting and mining industry (3.0%) was more than twice that of the state as a whole (1.4%).

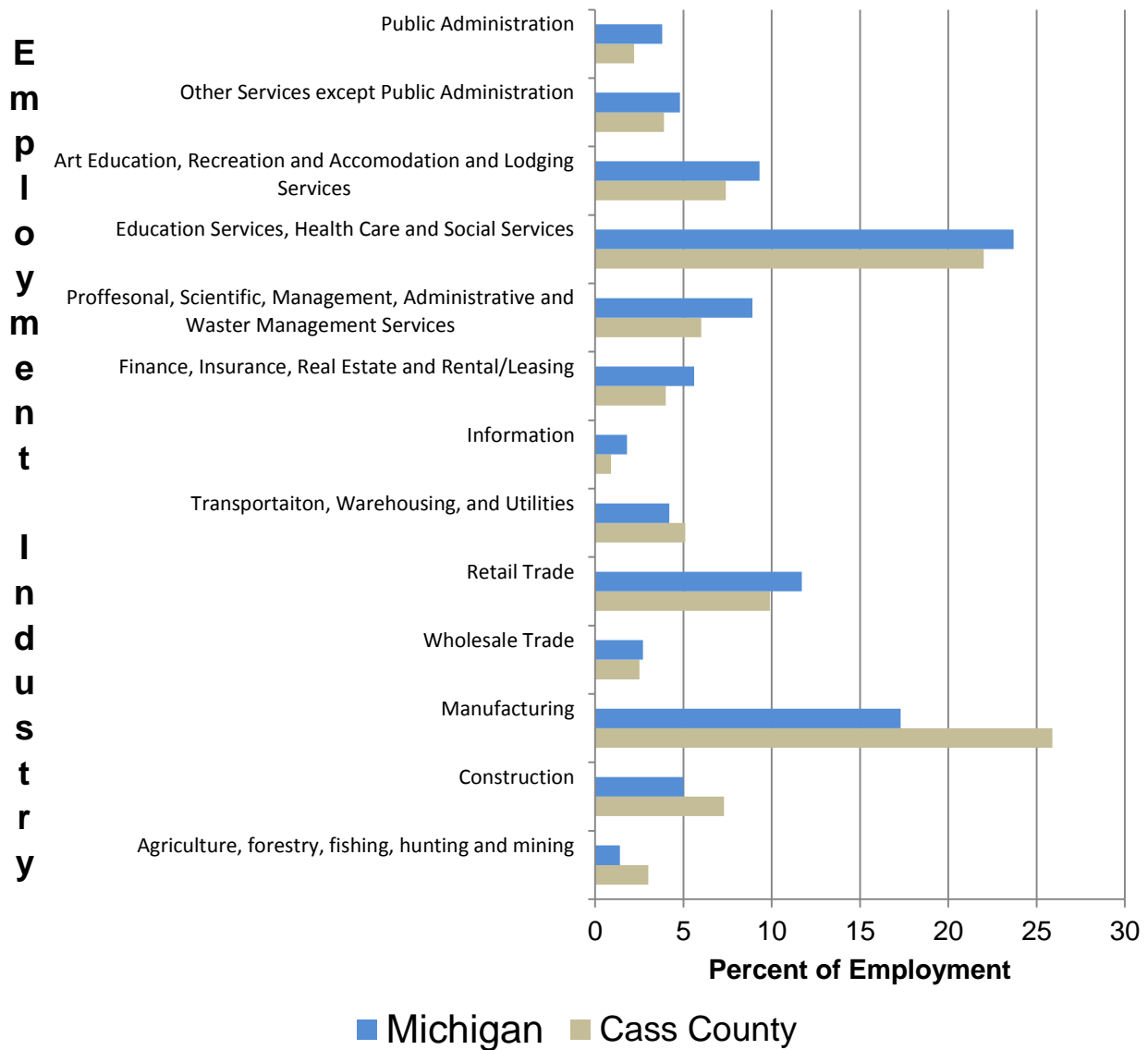
Manufacturing is clearly the primary source of employment in Cass County. While the employment rate in this industry for county residents was 25.9%, significantly higher than that of the state, nine of the 20 county municipalities reflected manufacturing employment rates approaching 20% or higher than that of the county. Those communities most heavily employed in manufacturing were Ontwa Township (43.2%), Calvin Township (37.5%), Porter Township (36.4%) and Mason Township (36.2%). See Table F-1.

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In contrast, the county reflected significantly lower employment in several industries as compared to the state as a whole including information (50% lower employment), professional, scientific, management, administrative and waste management services (33% lower employment), and retail trade (15% lower employment). With the “new economy” placing a greater emphasis on information and services versus manufacturing, these industries reflecting comparatively low employment rates may prove to be important sources of future employment and income enhancement, and may serve as opportunities for economic development efforts.

**Figure F-1
County and State Employment by Industry**



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**Table F-1
Employment by Industry**

Source: U.S. Census Bureau (American Community Survey, 2007 – 2011)

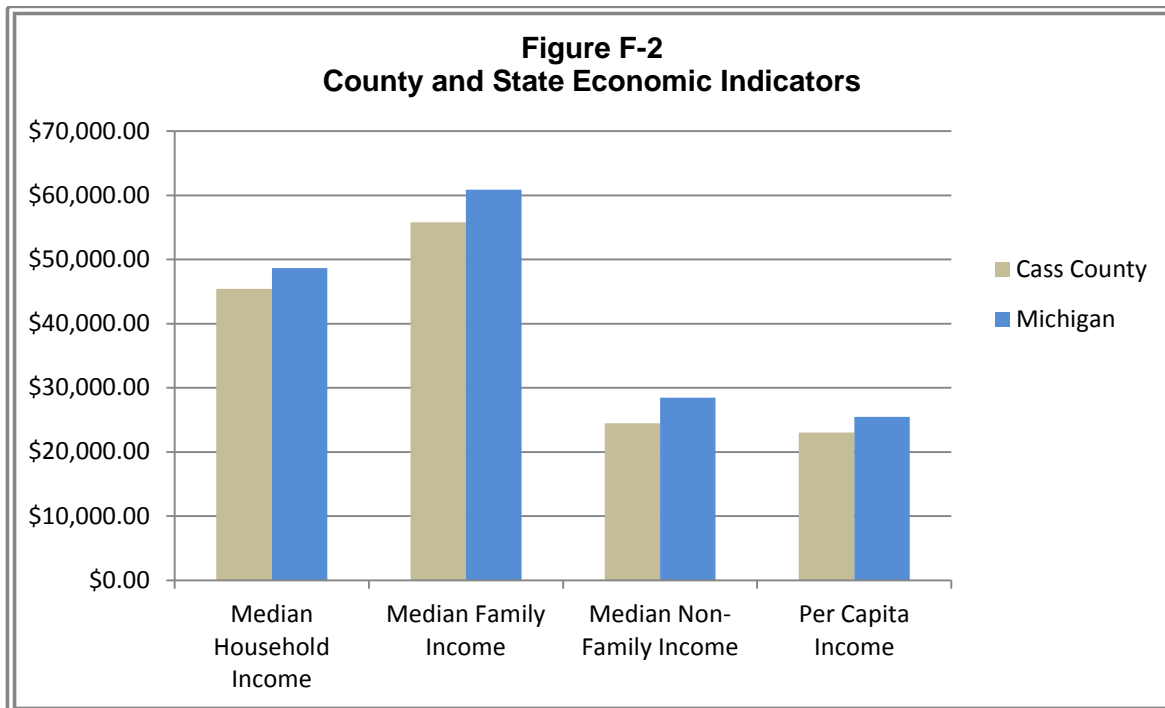
Municipality	Agriculture, forestry, fishing and hunting, and mining	Construction	Manufacturing	Wholesale Trade	Retail Trade	Transportation, Warehousing and utilities	Information	Finance, Insurance, Real Estate and Rental/Leasing	Professional, Scientific, Management, Administrative, Waste Management Services	Education Services, Health Care and Social Services	Art, Entertainment, Recreation, Accommodation and Lodging Services	Other Services except Public Administration	Public Administration
MICHIGAN	1.4	5.0	17.3	2.7	11.7	4.2	1.8	5.6	8.9	23.7	9.3	4.8	3.8
CASS COUNTY	3.0	7.3	25.9	2.5	9.9	5.1	0.9	4.0	6.0	22.0	7.4	3.9	2.2
TOWNSHIPS													
Calvin	0.7	12.2	37.5	1.1	3.1	2.5	0.0	1.8	6.0	23.7	7.7	2.2	1.3
Howard	0.4	8.3	25.7	1.6	16.0	5.8	2.1	4.3	3.5	17.9	4.9	5.7	3.7
Jefferson	0.4	7.3	26.3	2.6	8.1	8.7	0.0	4.3	3.9	29.7	3.7	4.4	0.6
LaGrange	1.4	3.6	24.2	3.5	14.1	6.1	1.6	4.4	8.3	14.8	11.8	4.2	2.2
Marcellus	2.3	5.8	35.8	0.3	10.5	6.0	0.5	5.5	5.2	17.4	7.0	1.5	2.1
Mason	2.9	7.7	36.2	2.7	9.8	4.7	0.6	4.1	4.3	14.8	9.0	0.8	2.5
Milton	0.4	5.6	17.1	3.2	7.7	4.8	0.6	1.8	9.8	34.9	7.0	5.5	1.5
Newberg	4.6	6.5	43.2	2.8	7.9	4.8	0.3	5.5	3.0	13.4	3.9	3.0	1.2
Ontwa	0.0	10.2	29.1	4.6	8.3	4.0	0.6	4.2	5.6	22.4	7.1	3.1	1.0
Penn	3.7	15.0	21.7	0.0	7.5	5.2	1.2	3.2	3.6	27.6	1.8	8.5	1.2
Pokagon	8.8	6.2	21.3	2.3	9.7	6.9	3.2	2.8	3.6	18.0	7.8	5.5	3.8
Porter	1.1	8.1	36.4	4.8	9.0	3.4	0.5	8.2	3.1	15.0	6.3	2.5	1.5
Silver Creek	21.6	8.3	16.0	1.2	5.9	3.2	0.1	2.7	6.4	22.7	7.2	2.3	2.5
Volinia	5.0	7.0	29.8	0.0	11.6	5.8	0.8	0.8	11.8	14.7	7.2	1.9	3.5
Wayne	3.8	3.9	23.3	2.3	13.2	5.1	1.3	3.1	8.8	21.0	7.7	5.1	1.4
CITY/VILLAGES													
Cassopolis	1.5	5.9	21.9	2.1	10.7	5.9	0.9	3.8	9.1	16.4	15.8	3.3	2.9
Dowagiac	0.7	3.0	12.9	2.2	8.3	5.3	0.2	4.1	9.7	32.4	13.5	4.1	3.6
Edwardsburg	0.0	10.0	25.4	3.6	12.2	5.1	3.6	5.6	4.2	12.0	10.7	6.5	1.1
Marcellus	2.1	10.2	29.9	0.8	9.4	3.7	1.2	10.2	3.1	20.6	4.4	3.3	1.2
Vandalia	0.8	2.5	29.2	0.0	7.5	20.0	1.7	3.3	4.2	25.8	5.0	0.0	0.0

PROSPERITY

The most recent information from the Census Bureau (American Community Survey, 2007 – 2011) on economic indicators for Cass County includes the following:

Median Household Income:	\$45,432
Median Family Income:	\$55,818
Median Non-Family Income:	\$24,468
Per Capita Income:	\$23,045

The Cass County community was in a somewhat less prosperous position when compared to the state as a whole. The county's median household income of \$45,432 was 6.7% less than that of the state and its median family income of \$55,818 was 8.3% less than the state. The county's median non-family income (\$24,468) and per capita income (\$23,045) were 14.1% and 9.6% less than that of the state respectively. However, the county's proportion (9.8%) of families below the federally established poverty level and the proportion of individual persons below the poverty level (13.3%) were approximately 12% and 15% less than that of the state respectively.



Differences in the level of prosperity across the county are considerable:

Median Household Income ranges from:	\$26,424 to \$62,904
Median Family Income ranges from:	\$31,944 to \$62,904
Median Non-Family Income ranges from:	\$15,398 to \$37,500
Per Capita Income ranges from:	\$13,802 to \$31,040

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Table F-2
Income Characteristics

Source: U.S. Census Bureau (American Community Survey, 2007 – 2011)

JURISDICTION	Median House- hold Income (\$)	Median Family Income (\$)	Median Non- Family Income (\$)	Per Capita Income (\$)	Families Below Poverty Level (%)	Persons Below Poverty Level (%)	Persons Working At Home (%)	Average Travel Time To Work (minutes)
MICHIGAN	48,669	60,895	28,472	25,482	11.1	15.7	3.5	23.9
CASS COUNTY	45,432	55,818	24,468	23,045	9.8	13.3	3.2	25.2
TOWNSHIPS								
Calvin	47,250	64,250	26,964	23,293	15.2	22.0	3.4	32.0
Howard	51,881	61,604	24,648	24,481	2.6	4.3	0.2	23.1
Jefferson	47,205	54,934	28,333	23,530	9.6	11.5	1.9	25.9
LaGrange	33,903	46,667	17,837	19,150	16.1	16.9	2.2	22.9
Marcellus	43,469	50,938	37,500	21,568	16.1	16.9	3.7	26.3
Mason	44,718	50,203	27,105	20,070	10.1	12.9	4.7	24.4
Milton	62,904	75,500	20,905	27,473	6.8	11.0	1.5	21.9
Newberg	47,569	53,958	32,500	21,725	9.1	11.9	5.8	25.6
Ontwa	51,923	61,972	27,533	23,748	8.2	10.7	2.9	29.9
Penn	59,063	61,404	27,083	28,649	5.4	8.5	8.1	28.8
Pokagon	45,481	55,500	21,471	19,683	5.0	10.0	5.9	22.1
Porter	48,923	61,875	23,583	31,040	6.7	7.7	3.5	29.2
Silver Creek	49,571	64,712	27,054	23,521	10.6	22.7	6.6	24.9
Volinia	44,063	50,313	20,096	23,289	10.7	10.0	2.1	27.6
Wayne	43,750	51,019	21,316	20,088	9.7	16.8	3.6	24.1
CITY/VILLAGES								
Cassopolis	26,424	36,500	15,398	14,871	27.2	29.5	1.2	22.8
Dowagiac	31,329	38,602	23,118	17,739	17.1	19.7	2.7	20.2
Edwardsburg	33,516	35,139	28,333	15,361	21.2	29.4	0.9	24.3
Marcellus	43,125	49,500	34,688	20,995	15.2	16.7	1.6	28.4
Vandalia	26,953	31,944	22,917	13,802	17.0	20.6	1.7	27.9

Appendix G

OVERVIEW of LOCAL PARTICIPATING MUNICIPALITIES

Introduction

This Chapter provides a further overview of the following six Local Participating Municipalities:

Village of Edwardsburg: page 1
 Pokagon Township: page 3
 Silver Creek Township: page 6

Village of Vandalia: page 8
 Volinia Township: page 10
 Wayne Township: page 13

See other Appendices for additional information pertaining to each of these communities and Cass County as a whole, regarding information on demographics, land use, community facilities, natural resources, and additional features.

Edwardsburg (Village)

CULTURAL FEATURES

Regional Context and Circulation

The Village of Edwardsburg is approximately one square mile in area and located in the northwest quarter of Ontwa Township in the southwest quarter of Cass County, two miles from the Indiana state line. U.S.-12 (Main Street) travels east-west through the village and M-62 travels in a diagonally north-south direction through its eastern half. The village is approximately eight miles north of Interstates 80/90 across the northern edge of Indiana, and M-62 leads to an interchange along the highway. Within the village, there are several major thoroughfares that funnel traffic to U.S.-12 and M-62 including Cass, Elkhart and Section streets. The Grand Trunk Western Railroad also crosses the village, generally parallel to and immediately to the west of M-62.

The road network within the village does not reflect the tight street grid system to the same extent that is evident in Dowagiac and the county's other villages. This is due to, in part, the presence of U.S.-12, M-62 and the railroad, and Pleasant Lake.

Predominant Land Use Pattern

Edwardsburg reflects a strong mixed use character, common in the evolution of village settlements. Commercial development is substantial and generally follows the U.S.-12 and M-62 corridors. M-62 is nearly entirely commercial in character along its east side while its west side is bounded by the railroad and primarily residential neighborhoods beyond. This business corridor extends to the east along U.S.-12 to the village's east edge. Examples of the businesses along the east side of M-62 and along U.S.-12 to the east include insurance and real estate offices, financial institutions, auto body repair, restaurants including standard and drive-through, furniture restoration, video rentals, service station, and veterinary and taxidermy services.

The balance of the village's businesses is principally located along a compact segment of U.S.-12 in the center of the village, from Cass/Elkhart Streets to First Street. Commercial uses within this area are typically of a smaller scale and opportunities for pedestrian movement are enhanced. Examples of the commercial uses in this area include antique sales, law offices, gift shops, fabrics and quilting, auto sales, and a funeral home. The village's library and post office are also located in this area.

The majority of the balance of the village is residential in character, with the majority of the village's residential acreage devoted to single family lots typically ranging between 8,000 sq. feet and 40,000 sq. ft. Many of the individual smaller platted

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lots are used in conjunction with neighboring lots to form larger home sites. The village includes a single manufactured housing community, located on the east side of M-62 near the village's southern edge. There are two multiple family developments in the village – a comparatively small development on the east side of Section Street (approximately two acres) in the southwest quarter of the village and a larger and more recent development (approximately 10 acres) behind the M-62 business corridor and north of Elkhart Street.

The approximate portions of the village devoted to principal tax classifications are:

Land Use- (Tax Classification)	Approx. Acreage	Approx. Portion of Village
Agriculture / Forestry	8.6	1.7%
Residential	270.9	52.7%
Commercial	124.4	24.2%
Industrial.	0.1	0.0
Public / Tax Exempt	109.8	21.4%
Pokagon Band of Potawatomi Indians	0.0	0.0
Other	0.0	0.0

A defining feature of the Edwardsburg community, and its largest landowner, is the Edwardsburg Public Schools campus in the village's southwest corner. The campus covers approximately 80 acres and houses the district's administrative, maintenance, and educational facilities including athletic fields and courts.

Dwellings

The 2010 Census recorded 569 dwellings in the village, approximately 79.1% of which were single family dwellings including mobile homes. Mobile homes alone accounted for 32.7% of the village's single family dwellings. Approximately 19.8% of the village's housing units are contained within multiple family developments. 90.9% of all housing units were occupied in 2010. Of the occupied units, 59.0% were occupied by the owner and the balance was renter-occupied. The median value of the owner-occupied housing units in 2010 was \$85,000.

Community Facilities

Public Sewer:

Village of Edwardsburg serves the entire village, the system being operated by Ontwa Township Wastewater and discharging to Elkhart, Indiana.

Public Water:

Edwardsburg Municipal Water Department serves the entire village.

Police Protection:

Village of Edwardsburg/Ontwa Township Police Department, located at 26296 U.S.-12.
State Police

Fire Protection:

Edwardsburg Fire Department, at 69910 M-62.

Ambulance Service:

Edwardsburg Ambulance Service, located at 26273 E. Shore Dr.

Cemeteries: Edwardsburg Cemetery, Hamilton Street and Cemetery Drive.

Outdoor Recreation Facilities:

Gunn Park (5-acre village park), including band stand, playground equipment, basketball court, and picnic tables and grills, along Pleasant Lake.

Lindbergh Park (1/4-acre village park) including public beach and picnic tables, along Pleasant Lake.

Edwardsburg Public Schools campus facilities.

Natural Features

Topography: Edwardsburg can be described as generally level to mildly rolling. Nearly the entire village reflects grades of 6% or less, and less than 5% of the village reflects grades greater than 6%.

Soils: According to the U.S. Soil Conservation Service, approximately two-thirds of the village's land area is characterized by loamy sand soils, with the balance being nearly entirely of a sandy loam character. The village's soils are generally supportive of construction activity, with approximately two-thirds of the village presenting comparatively slight limitations. The balance of the village presents more severe limitations and these are largely a result of wetness. These obstacles can typically be overcome through special construction measures though at additional cost. Though public sewer is available throughout the village, it is interesting to note that the village's soils present comparatively limited challenges for septic fields.

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Principal Water Courses and Wetlands: The primary water feature in Edwardsburg is the presence of Pleasant Lake in its northwest quarter. The lake covers approximately 80 acres, three-quarters of which is in the village and the balance is in Ontwa Township. The village also includes several small ponds. Wetlands are present and situated principally in its southwest quarter and to the east of Pleasant Lake. Wetlands are not present in the village except for a number of very small and scattered pockets, most apparent on the east side of Cass Street in the area of Pleasant Lake. Without a principal river or stream within its border, drainage is accommodated through a combination of Pleasant Lake and its other small ponds, its wetlands, and sheet drainage to adjacent land outside of the village and drainage courses further beyond.

Demographic Features

Population and Growth

2010 Population:	1,259
2000-2010 Growth:	9.8%
1940-2010 Growth:	104.4%
1940-2010 Average 10-Year Growth:	14.9%

Age Profile

Under 18 years:	29.4%
18 – 64 years of age:	57.4%
Age 65 and over:	13.2%

Median Age: 36.1 years

Racial Profile

White:	93.6%
Black/African American:	1.5%
American Indian/Alaska Native:	0.8%
Asian:	0.2%
All Other:	4.9%

Household Profile: The 2010 Census recorded 517 households in the village, 64.2% of which comprised a family. 60.6% of the family households were comprised of a husband-wife family. The average household size was 2.4 persons and the average family size was 3.0 persons.

Education Profile: The highest level of education attained by village residents of 25 years of age or greater is as follows:

High School Graduate:	38.0%
Associate's Degree:	7.1%
Bachelor's Degree:	7.1%
Graduate/Professional Degree:	3.3%

Income/Employment Profile:

The top five industries that accounted for the employment of village residents were:

Manufacturing:	25.4%
Retail Trade:	12.2%
Education services, health care, social assistance:	12.0%
Arts, entertainment, recreation, accommodations, food service:	10.7%
Construction:	10.0%

Income characteristics include:

Mean Household Income:	\$33,516
Mean Family Income:	\$35,139
Mean Non-Family Income:	\$28,333
Per Capita Income:	\$15,361
Persons below Poverty Level:	29.4%
Families Below Poverty Level:	21.2%

See other Appendices for additional information pertaining to Edwardsburg and Cass County as a whole including demographics, land use, community facilities, natural resources, and additional features.

Pokagon Township

CULTURAL FEATURES

Regional Context and Circulation

Pokagon Township is located along the west border of Cass County in the county's northwest quarter. The township is immediately southwest of Dowagiac and the city occupies a portion of the township's northeast corner. M-51 is the primary thoroughfare, travelling southwesterly from Dowagiac through the community. Circulation is further supported by a number of county "primary" road segments, the most significant being Indian Lake Rd., Pokagon Highway, and Wilbur Hill Rd. Most all other road segments are paved "local" roads.

Predominant Land Use Pattern

Pokagon Township is comprised nearly entirely of farmland and farm-related operations and other open spaces such as wetlands. Together, these areas account for approximately 90% of the township's land area. Farming operations alone account for approximately 62% of the township's land area. Residential development is of an overall scattered pattern except for the two small settlement areas of Sumnerville and Pokagon, both in the township's

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southwest quarter along M-51. Each of these settlement areas includes approximately 75 residences.

The approximate portions of the township devoted to principal tax classifications are:

Land Use- (Tax Classification)	Approx. Acreage	Approx. Portion of Township
Agriculture / Forestry	14,246.2	61.5%
Residential	4,553.0	19.7%
Commercial	484.6	2.1%
Industrial.	66.5	0.3%
Public / Tax Exempt	1,705.0	7.4%
Pokagon Band of Potawatomi Indians	1,597.0	6.9%
Other	496.9	2.1%

The township's principal commercial area is along M-51, extending approximately two miles from Dowagiac. Examples of the range of commercial uses in the township include landscape supply sales and services; lumber sales; auto body sales and repair including large truck service; hair, nails and spa services; health services; lodging; well drilling; hardware sales; and appliance repair. Several businesses are also located in Sumnerville and Pokagon including a hair salon, convenience store and the Old Tavern Inn – the oldest continued business in the Michigan (1835). A small portion of Pokagon Township functions as an island within Dowagiac's business district along M-51, and these properties are also under commercial use including auto parts sales, car sales, video rental, and hardware sales.

A new casino established by the Pokagon Band of Potawatomi Indians recently opened on the west side of M-51 near Edwards Street, and the Pokagon Band recently completed the construction of a gas station and convenience store in front of the casino. The Pokagon Band maintains several additional facilities along M-51 including a health clinic and police station. The township is also home to administration and retreat facilities of the Pokagon Band, located to the west of the Sink Rd./Edwards St. intersection near Rogers Lake. A medical center is under construction at the administration facility.

The M-51 corridor also includes several industrial uses in addition to several in the area of Edwards St. just west of M-51. Examples of industrial activity include trucking, steel recycling, and truss and panel construction.

Pokagon Township includes a number of public and semipublic uses such as the Pokagon Band facilities, the township hall on Peavine St. and several religious institutions. Most notably is the recently restored Old Rugged Cross Church in Pokagon. The church grounds include gardens and a large wooden cross. The site is on the state registry of historic landmarks.

Dwellings

The 2010 Census recorded 931 dwellings in the township, approximately 95% of which were single family dwellings including mobile homes. Mobile homes alone accounted for 7% of the township's dwelling units. 87% of all housing units were occupied in 2010. Of the occupied units, 88% were occupied by the owner and the balance was renter-occupied. The median value of the owner-occupied housing units in 2010 was \$132,800.

Community Facilities

Public Water: None

Public Sewer:

Indian Lake Sewer System, operated by Silver Creek Township, serves limited northern portions of Sec. 6 of Pokagon Township. The system discharges to the Dowagiac Utilities Treatment Plant.

Police Protection:

County Sheriff's Dept.
State Police
Pokagon Band of Potawatomi Tribal Police

Fire Protection:

Dowagiac VFD (Sec. 1 and 2)
Pokagon VFD (northern portions of twp.)
Indian Lake VFD (southern portions of twp.)

Ambulance Service:

SMCAS (Sec. 25 – 36)
CEMS (Sec. 1 – 24)

Cemeteries:

Dewey Cemetery on Dillman Rd.
Evergreen Cemetery east of Pokagon.
Sumnerville Cemetery at Pokagon Hwy./Wood Rd.

Outdoor Recreation Facilities:

Arthur Dodd Memorial Park (Cass Co. Park)
Dowagiac Woods (Michigan Nature Association)
Hampshire Country Club

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Natural Features

Topography: Pokagon Township can be described as generally level to mildly rolling. Topographic relief is most apparent along its east and west peripheries. The vast majority of the township reflects grades of 0% to 6%. Less than 2% of the township's land area exceeds grades of 18%.

Soils: According to the U.S. Soil Conservation Service, nearly all of Pokagon Township is characterized by loam, sandy loam and loamy sand soils. The principal exceptions are muck soils typically in association with wetland areas. The township's soils present varying degrees of limitations for building construction due to such factors as ponding, flooding, low strength, and shrink-swell potential. These obstacles can typically be overcome through special construction measures though at additional cost.

The soils present more consistent severe limitations for septic tank absorption fields due to such factors as flooding, soil wetness, and poor filter qualities. Approximately three-quarters of the township presents severe limitations for septic fields. These obstacles can also typically be overcome through special engineered fields, excluding wetland areas. Those areas that are more naturally supportive of septic fields are most concentrated along the township's east periphery and in its central region.

Approximately two-thirds of the township is characterized by "prime farmland," a condition defined primarily by soil conditions. The Natural Resources Conservation Service generally defines *prime farmland* as land that is, under proper management, particularly well suited to food, feed, forage, fiber, and oilseed crops and is capable of producing sustained high yields. The township's prime farmland is present throughout the township but less dominant in its northeast quarter and extending into its central region.

Principal Water Courses and Wetlands: The Dowagiac River flows through Pokagon Township, entering several miles west of Dowagiac from Silver Creek Township and flowing southerly to Sumnerville and then the Niles area in Berrien County. Peavine Creek in the township's central region, and Pokagon Creek in its southwest quarter, are the principal tributaries feeding the river in the township. In addition to these water courses playing a critical role in facilitating drainage and the removal of storm water, the township's abundant wetlands similarly have an important drainage role in addition to providing important wildlife habitat. Wetlands account for approximately 5% of the township's area and are comprised largely of lowland hardwood vegetation.

Wetlands are most apparent adjacent to and in close proximity to the Dowagiac River, Dowagiac Creek, and Peavine Creek.

The township has several comparatively small lakes and ponds, the largest being Rodgers Lake along its west border south of Peavine Street and covering approximately 20 acres.

Demographic Features

Population and Growth

2010 Population:	2,029
2000-2010 Growth:	-7.7%
1940-2010 Growth:	61.8%
1940-2010 Average 10-Year Growth:	8.8%

Age Profile

Under 18 years:	21.2%
18 – 64 years of age:	61.0%
Age 65 and over:	17.8%

Median Age: 45.0 years

Racial Profile

White:	88.8%
Black/African American:	5.6%
American Indian/Alaska Native:	0.8%
Asian:	0.6%
All Other:	4.2%

Household Profile: The 2010 Census recorded 813 households in Pokagon Township, 71.3% of which comprised a family. 79.5% of the family households were comprised of a husband-wife family. The average household size was 2.5 persons and the average family size was 2.9 persons.

Education Profile: The highest level of education attained by township residents of 25 years of age or greater is as follows:

High School Graduate:	35.3%
Associate's Degree:	10.9%
Bachelor's Degree:	7.8%
Graduate/Professional Degree:	7.6%

Income/Employment Profile:

The top five industries that accounted for the employment of township residents were:

Manufacturing:	21.3%
Retail Trade:	9.7%
Agriculture, forestry, fishing, mining, and hunting:	8.8%
Education services, health care, and social assistance	8.0%
Arts, entertainment, recreation, accommodations, food service:	7.8%

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Income characteristics include:

Mean Household Income:	\$45,481
Mean Family Income:	\$55,500
Mean Non-Family Income:	\$21,471
Per Capita Income:	\$19,683
Persons below Poverty Level:	10.0%
Families Below Poverty Level:	5.0%

See other Appendices for additional information pertaining to Pokagon Township and Cass County as a whole including demographics, land use, community facilities, natural resources, and additional features.

Silver Creek Township

CULTURAL FEATURES

Regional Context and Circulation

Silver Creek Township comprises the northwest corner of Cass County, bordering Berrien County to the west and Van Buren County to the north. The township is directly northwest of Dowagiac and the city occupies a small portion of the township's southeast corner. Regional access to Silver Creek Township is afforded by M-51, which serves as the township's east boundary. M-152 extends west from M-51 across the township's northern region and meanders through the Sister Lakes area. The principal county designated "primary" roads are Indian Lake and Sister Lakes Roads travelling north-south through the township's western region, and Crossing Street, which extends from Dowagiac northwesterly into the township's central area. The balance of the township's public road network is comprised of primarily paved county-designated local roads in a loose grid-like pattern.

Predominant Land Use Pattern

Most of the Silver Creek Township landscape is dominated by farming operations, woodlands, wetlands and other open spaces, and scattered residences. Farmland accounts for approximately half of the township's land area. The principal exception to the dominant agricultural and other rural landscapes that define the township's character is the extensive lake area neighborhoods along the township's five principal lakes – Indian Lake in its southwest corner and the Sister Lakes area in its north central region (Cable, Dewey, Little Crooked and Magician Lakes). These lake residential areas are comprised largely of platted subdivisions with lots

frequently less than 10,000 sq. ft. and, in many cases, lots are less than 5,000 sq. ft. and 50' in width.

The lake residential areas comprise the population centers of the township, accounting for approximately one-third of the township's dwellings. However, approximately half of the residences are occupied on a seasonal basis only. The township's abundant water resources and proximity to regional urban centers, including Chicago, make the township's lake areas a very attractive getaway during the warmer months.

The other principal exception to the township's more rural landscape is the mixed-use character of the M-51 corridor, consisting of agriculture and residential, commercial, and industrial development. There are also several commercial enterprises scattered elsewhere in the township, most particularly along M-152 in the Sister Lakes area and along M-62 just west of Dowagiac and near Indian Lake. Commercial uses and services include, by example, auto sales and repair, marinas, boat sales and repair, lodging, restaurants, taverns, bait and fishing supplies, and landscape and construction services. Industrial activities include plastic molding, warehousing and distribution, and tool and die. The township is also home to several sand/gravel mining operations.

The approximate portions of the township devoted to principal tax classifications are:

Land Use- (Tax Classification)	Approx. Acreage	Approx. Portion of Township
Agriculture / Forestry	13,802.1	68.1%
Residential	5,322.5	26.3%
Commercial	611.2	3.0%
Industrial.	9.5	0.0%
Public / Tax Exempt	183.7	0.9%
Pokagon Band of Potawatomi Indians	0.7	0.0%
Other	339.2	1.7%

Dwellings

The 2010 Census recorded 2,424 dwellings in the township, approximately 98.6% of which were single family dwellings including mobile homes. Mobile homes alone accounted for 9.7% of the single family dwelling units. Approximately one-third of the mobile homes are within two manufactured housing communities, one on the north shore of Indian Lake and a second along the north side of M-152 east of Magician Lake Rd.

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The 2010 Census classified only 53% of all housing units as being occupied, a reflection of a strong seasonal decline in township population during the cooler months. Of the occupied units, 86.3% were occupied by the owner and the balance was renter-occupied. The median value of the owner-occupied housing units in 2010 was \$163,000.

Community Facilities

Public Water: None

Public Sewer:

Sister Lakes Sewer Authority serves Cable, Dewey, Little Crooked, and Magician Lakes and discharges to the Dowagiac Utilities Treatment Plant on M-62 on the west side of the city.

Indian Lake Sewer System, operated by Silver Creek Township, serves Indian Lake in addition to Sec. 19 and 30 to the north and portions of Sec. 6 of Pokagon Township to the south. The system also discharges to the Dowagiac Utilities Treatment Plant.

Police Protection:

County Sheriff's Dept.

Silver Creek Township Police Dept.

Fire Protection:

Sister Lakes Volunteer Fire Dept. (northern half)

Indian Lake Volunteer Fire Dept. (southern half)

Ambulance Service:

Coloma EMS (northern half)

Cass-Van Buren Emergency Service Authority
(southern half)

Cemeteries:

Dewey Lake Cemetery

(Dixon St. near Indian Lake Rd.)

Elm Road Cemetery

(Elm Rd. near Red Mill Rd.)

Indian Lake Cemetery

(School St. near Sink Rd.)

All of the above cemeteries were deeded over to a cemetery association by the township.

Principal Outdoor Recreation Facilities:

Indian Lake Golf Club

DNR boat launches on Dewey and Magician Lakes.

Snowmobile staging access and parking (Indian and Magician Lakes)

Natural Features

Topography: The township can be described a generally level, with limited areas of a more rolling character. The vast majority of the township reflects grades of 0% to 2%. Less than 1% of the township's land area exceeds grades of 12%.

Soils: According to the U.S. Soil Conservation Service, nearly all of Silver Creek Township is characterized by loam, sandy loam and loamy sand soils. The principal exceptions are muck soils typically in association with wetlands. The township's soils present varying degrees of limitations for building construction due to such factors as ponding, flooding, low strength, and shrink-swell potential. These obstacles can typically be overcome through special construction measures at additional cost. The soils present more consistent moderate and severe limitations for septic tank absorption fields due to seasonal flooding, soil wetness, and poor filter qualities, and these obstacles can also typically be overcome through special engineered fields.

Approximately one-third of the township is characterized by "prime farmland," a condition defined primarily by soil conditions. The Natural Resources Conservation Service generally defines *prime farmland* as land that is, under proper management, particularly well suited to food, feed, forage, fiber, and oilseed crops and is capable of producing sustained high yields. The township's prime farmland is most dominant in its western half excluding the Sister Lakes area.

Water Resources and Wetlands: A defining feature of Silver Creek Township is its lakes, including Indian Lake in its southwest corner and four lakes clustered together in its north central region (Cable, Dewey, Little Crooked and Magician Lakes). These lakes range from approximately 100 acres (Little Crooked and Cable Lakes) to just under 500 acres (Indian and Magician Lakes) and the northern lakes comprise a portion of the more than six lakes that are commonly referred to as the "Sister Lakes." Approximately one-half of Little Crooked Lake, and a small portion of Magician Lake is located in Van Buren County. The smallest of the township's lakes, Priest Lake, is approximately 25 acres in area and is located in the township's east central portion. As noted previously, these lakes serve as the population centers of the township and are important drainage features in addition to providing opportunities for recreation, wildlife habitats, and lakefront living. The township includes several ponds of less than ten acres.

Magician Lake and much of this portion of the township flows into Silver Creek which, in turn, flows south into the Dowagiac River. The Dowagiac River cuts across the southeast quarter of the township, from Wayne Township to the east, and in conjunction with the township's lakes, facilitates the collection of the majority of the storm water in the community.

Also playing a fundamental role in the drainage of the township, and the creation of important wildlife habitats, is the township's extensive wetlands. The

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wetlands are typically in close proximity to lake and stream areas. The vast majority of the township's wetlands are part of the Dowagiac River corridor and occupy approximately one-third of the southeast quarter of the township. These wetland areas are characterized principally by wooded wetlands.

Wooded areas comprise approximately one-quarter of the township's land area, the majority of which are in association with wetland areas in the vicinity of the Sister Lakes and along Silver Creek and the Dowagiac River.

Demographic Features

Population and Growth

2010 Population:	3,218
2000-2010 Growth:	-7.8%
1940-2010 Growth:	173.4%
1940-2010 Avg. 10-Year Growth:	24.8%

Age Profile

Under 18 years:	21.3%
18 – 64 years of age:	56.5%
Age 65 and over:	22.2%
Median Age: 46.6 years	

Racial Profile

White:	90.0%
Black/African American:	1.2%
American Indian/Alaska Native:	1.8%
Asian:	0.1%
All Other:	6.8%

Household Profile: The 2010 Census recorded 1,285 households in Silver Creek Township, 70.7% of which comprised a family. 83.0% of the family households were comprised of a husband-wife family. The average household size was 2.5 persons and the average family size was 2.9 persons.

Education Profile: The highest level of education attained by township residents of 25 years of age or greater is as follows:

High School Graduate:	28.6%
Associate's Degree:	7.1%
Bachelor's Degree:	10.9%
Graduate/Professional Degree:	10.3%

Income/Employment Profile:

The top five industries that accounted for the employment of township residents were:

Education services, health care, and social assistance:	22.7%
Manufacturing:	16.0%
Agriculture, forestry, fishing, mining, and hunting:	21.6%
Construction:	8.3%
Arts, entertainment, recreation, accommodations, food service:	7.2%

Income characteristics include:

Median Household Income:	\$49,571
Median Family Income:	\$64,712
Median Non-Family Income:	\$27,054
Per Capita Income:	\$23,521
Persons below Poverty Level:	22.7%
Families Below Poverty Level:	10.6%

See other Appendices for additional information pertaining to Silver Creek Township and Cass County including demographics, land use, community facilities, natural resources, and additional features.

Vandalia (Village)

CULTURAL FEATURES

Regional Context and Circulation

The Village of Vandalia is located in the south central region of Penn Township and is approximately three miles northeast of the center of Cass County. The village is centered around M-60, which travels east-west through the village and connects U.S. 131 near Three Rivers to the east with the Niles area to the west in Berrien County. The village is a small settlement area surrounded by the agricultural and rural landscape that dominates the majority of Cass County. While M-60 serves as the backbone for circulation through the village, there are several roads that are important in collecting and funneling traffic including Bogue Street, Mill Street, and Main Street. All of these roads are situated in the village's central business and residential area, and Bogue and Mill Streets intersect with M-60. The balance of the village's road network serving principal residential and commercial areas generally reflects a tight grid network characteristic of traditional village development patterns. However, as it is primarily the southeast quarter of the village that has undergone development and the balance of the village is of a prevailing open space/agricultural character, roads in these more outlying areas are limited.

Predominant Land Use Pattern

Though the village is a square mile, it is the southeast region only that reflects a traditional development pattern, with the majority of the village devoted to farmland and wetlands. M-60 (State St.) travels through the southeast quarter and development along the corridor is of a mixed character.

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The approximate portions of the village devoted to principal tax classifications are:

Land Use- (Tax Classification)	Approx. Acreage	Approx. Portion of Village
Agriculture / Forestry	341.5	59.8%
Residential	193.2	33.8%
Commercial	5.8	1.0%
Industrial.	0.0	0.0%
Public / Tax Exempt	29.9	5.2%
Pokagon Band of Potawatomi Indians	0.0	0.0%
Other	0.2	0.0%

The majority of the corridor is devoted to residences. Also along the corridor are several businesses including a gas station, convenience store, restaurant and sports equipment sales. Along with these active businesses are vacant storefronts. The village's administrative offices and community center are located on M-60 at the Main Street intersection, and the village's water tower is situated at its east end on the south side of the highway. There is no industry along the highway or elsewhere in the village.

As one moves to the north and south of M-60 in the village's core, the areas are of a traditional village residential character. Residences are situated on lots typically one-quarter acre (approximately) in area within the traditional village street grid. This development pattern is particularly apparent on the south side, and the neighborhood also includes several public uses including the Penn Township hall and fire station, churches, and a post office. The north side of M-60 is not developed to the same extent and depth as the south side and is of a more open character.

Dwellings

The 2010 Census recorded 141 dwellings in the village, approximately 98.9% of which were single family dwellings including mobile homes. Mobile homes alone accounted for 6.6% of the township's dwelling units. 75.9% of all housing units were occupied in 2010. Of the occupied units, 76.6% were occupied by the owner and the balance was renter-occupied. The median value of the owner-occupied housing units in 2010 was \$57,500.

Community Facilities

Public Sewer:

Cass County Area Utility Authority serves the entire developed portion of the village, discharging to the Dowagiac Utilities Treatment Plant on M-62 on the west side of the city.

Public Water:

Cass County Board of Public Works serves the entire developed portion of the village, receiving water from Cassopolis (operated by City of Dowagiac).

Police Protection:

County Sheriff's Dept.
State Police

Fire Protection:

Penn Township Fire Department (entire village)

Ambulance Service:

LifeCare (entire village)

Cemeteries:

Oakdale Cemetery at Main and Fox Streets.
Bogue St. Memorial Gardens on Bogue St. near
Marble St.

Outdoor Recreation Facilities:

Milo Barnes Park (village park), including playground equipment, basketball courts, pavilion and picnic tables, along Christiana Creek.

Napolean Fields Park (village park) including softball fields, pavilion, picnic tables, and grills, along Christiana Creek.

Natural Features

Topography: Vandalia can be described as generally level to mildly rolling. Approximately 10% of the village reflects grades of 6% or greater and the village is void of grades in excess of 12%.

Soils: According to the U.S. Soil Conservation Service, nearly the entire village is characterized by loam soils, with the balance being nearly entirely of a muck character – typically associated with wetland environments. The village's soils generally present moderate limitations to construction due to the potential for shrink-swell conditions. This obstacle can typically be overcome through special construction measures though at additional cost, excluding wetland conditions. The village's soils generally present severe conditions for septic drain fields due to the movement of water through the soil. Though public sewer is available throughout the developed portion of the village, this soil condition impacts the balance and majority of the village which is principally under agricultural use. However, soil limitations can be overcome through special engineered systems.

Approximately half of the village is characterized by "prime farmland," a condition defined primarily by soil conditions. The Natural Resources Conservation Service generally defines *prime farmland* as land that is, under proper management, particularly well suited

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to food, feed, forage, fiber, and oilseed crops and is capable of producing sustained high yields. Nearly all of the undeveloped portions of the village are classified as prime farmland excluding wetland areas.

Principal Water Courses and Wetlands: Christiana Creek flows through the central portions of Vandalia in a north to south direction, ultimately emptying into Painter Lake in the southeast corner of Jefferson Township. The creek is the only significant water feature in the village. However, approximately 10% of the village is characterized by wetlands, and these wetlands are concentrated along Christiana Creek and along the village's southern periphery. In addition to the creek and wetlands playing a critical role in facilitating drainage and the removal of storm water, these resources provide important wildlife habitats and recreation opportunities.

Demographic Features

Population and Growth

2010 Population:	301
2000-2010 Growth:	-29.8%
1940-2010 Growth:	-16.4%
1940-2010 Average 10-Year Growth:	-2.3%

Age Profile

Under 18 years:	25.6%
18 – 64 years of age:	57.5%
Age 65 and over:	16.9%

Median Age: 39.3 years

Racial Profile

White:	41.5%
Black/African American:	42.2%
American Indian/Alaska Native:	0.3%
Asian:	7.6%
All Other:	8.4%

Household Profile: The 2010 Census recorded 107 households in Vandalia, 72.0% of which comprised a family. 61.0% of the family households were comprised of a husband-wife family. The average household size was 2.8 persons and the average family size was 3.3 persons.

Education Profile: The highest level of education attained by township residents of 25 years of age or greater is as follows:

High School Graduate:	44.1%
Associate's Degree:	5.9%
Bachelor's Degree:	3.1%
Graduate/Professional Degree:	0.4%

Income/Employment Profile:

The top five industries that accounted for the employment of village residents in 2010 were:

Manufacturing:	29.2%
Education services, health care, social assistance	25.8%
Transportation, warehousing, utilities:	8.8%
Retail Trade:	7.5%
Arts, entertainment, recreation, accommodations, food service:	5.0%

Income characteristics include:

Mean Household Income:	\$26,953
Mean Family Income:	\$31,944
Mean Non-Family Income:	\$22,917
Per Capita Income:	\$13,802
Persons below Poverty Level:	20.6%
Families Below Poverty Level:	17.0%

See other Appendices for additional information pertaining to Vandalia and Cass County as a whole including demographics, land use, community facilities, natural resources, and additional features.

Volinia Township

CULTURAL FEATURES

Regional Context and Circulation

Volinia Township is in the north central region of Cass County, along the south Van Buren County line. The township is approximately six miles east of Dowagiac. Regional access to Volinia Township is afforded by I-94 nine miles to the north and three state highways that travel within six miles of the township's borders – M-40 to the east, M-51 to the west, and M-60 to the south. Both M-40 and M-51 are accessible from I-94 interchanges. Within the township, east-west travel is principally facilitated by Marcellus Highway through the central portions of the township. North-south travel is principally facilitated by Lawrence Road in the township's eastern half and Decatur Road in its western portion. These three roads are classified as "primary" thoroughfares. While the balance of the road network is comprised primarily of paved "local" roads, Volinia Township's road network reflects a greater presence of gravel roads as compared to most of the other county's townships.

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Predominant Land Use Pattern

Volinia Township is one of the least urbanized townships in Cass County. Approximately 25% of the township is devoted to residential, commercial or industrial development, with the balance of the township devoted to farm operations or otherwise of an open space character including woodlands and wetlands.

The approximate portions of the township devoted to principal tax classifications are:

Land Use- (Tax Classification)	Approx. Acreage	Approx. Portion of Township
Agriculture / Forestry	15,226.6	70.0%
Residential	5,330.4	24.5%
Commercial	28.1	0.1%
Industrial.	2.6	0.0%
Public / Tax Exempt	826.8	3.8%
Pokagon Band of Potawatomi Indians	0.0	0.0%
Other	338.1	1.6%

The majority of residences are scattered throughout the township, with only several small settlement areas – the unincorporated hamlets of Volinia along Marcellus Highway and Nicholville in its northeast quarter including the lakefront residential areas along Bunker and Finch Lakes, and the lakefront residential development along Little Fish Lake in the township's southeast corner. These settlement areas account for approximately one-third of the township's dwellings.

Traditional commercial development is limited to just several businesses scattered across the township including, but not limited to, a convenience store at the Lawrence Road/Marcellus Highway intersection, a general store at the Gards Prairie Road/Marcellus Highway intersection, and an auto repair service at the Decatur Road/Marcellus Highway intersection. There are various other businesses in association with farm operations including the sale of farm products and trees and nursery stock, and various businesses of a "home occupation" character. Industry is not present in the township.

Dwellings

The 2010 Census recorded 614 dwellings in the township, 99.7% of which were single family dwellings including mobile homes. Mobile homes alone accounted for 8.7% of the township's single family dwellings. The 2010 Census classified only 69.5% of all housing units as being occupied, a reflection of strong seasonal decline in township population during the cooler months. Of the occupied

units, 86.4% were occupied by the owner and the balance was renter-occupied. The median value of the owner-occupied housing units in 2010 was \$139,600.

Community Facilities

Public Water: None.

Public Sewer:

Lakes Area Sewer Authority serves the immediate Finch Lake area in Volinia Township in addition to other regional lakes outside of the township. The system discharges to a treatment plan east of the Village of Marcellus in Marcellus Township.

Police Protection:

County Sheriff's Dept.

Fire Protection:

Wayne Township Fire Department

Ambulance Service:

PRIDE (entire township)

Cemeteries:

Charleston Cemetery on Dewey Lake St.

Crane Cemetery on Crane St. near Decatur Rd.

Little Fish Lake Cemetery on Dutch Settlement Road.

Rosehill Cemetery on Lawrence Rd.

Outdoor Recreation Facilities:

Fred Russ State Forest

Natural Features

Topography: Volinia Township can be described as nearly level to mildly rolling, and reflects greater topographic relief than many of the townships in the county. Approximately one-quarter of the township reflects grades of 6% or more and 10% of the township reflects grades in excess of 12%. Those areas of the township reflecting increased topographic relief are primarily situated in the northwest and southeast quarters of the community.

Soils: According to the U.S. Soil Conservation Service, nearly all of Volinia Township is characterized by loam, sandy loam and loamy sand soils. The principal exceptions are muck soils typically in association with wetland areas, most particularly along the Dowagiac Creek corridor. The township's soils present varying degrees of limitations for building construction due to such factors as ponding, flooding, low strength, and shrink-swell potential. These obstacles can typically be overcome through special construction measures though at additional cost. The soils present more consistent moderate and severe limitations for septic tank absorption fields due to such factors as flooding,

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soil wetness, and poor filter qualities, and these obstacles can also typically be overcome through special engineered fields.

Approximately half of the township is characterized by "prime farmland," a condition defined primarily by soil conditions. The Natural Resources Conservation Service generally defines *prime farmland* as land that is, under proper management, particularly well suited to food, feed, forage, fiber, and oilseed crops and is capable of producing sustained high yields. The township's prime farmland is most concentrated in its northeast quarter and within one mile of the Dowagiac Reek corridor in its southwest quarter, and is least apparent in the township's southeast region.

Principal Water Resources and Wetlands: Volinia Township includes numerous small lakes and ponds of 20 acres or less in addition to five lakes ranging from approximately 30 acres to 140 acres in size. These include the lakes of Bunker, Copley, Cowham, Finch, and Little Fish. The largest of these lakes, Little Fish Lake, is along the southeast edge of the township. All of these lakes are located in the eastern third of the township and two of them, Little Fish Lake and Finch Lake, extend into Penn and Marcellus townships respectively.

Dowagiac Creek is the primary drainage course in the township, flowing diagonally from Finch Lake in the northeast corner to the southwest corner and ultimately emptying into Lake LaGrange in La Grange Township. Wetlands in Volinia Township are comparatively limited, the vast majority of which are within the immediate proximity of Dowagiac Creek and a wetland expanse (approximately 140 acres) just south of Finch Road near Nicholasville.

Demographic Features

Population and Growth

2010 Population:	1,112
2000-2010 Growth:	-5.3%
1940-2010 Growth:	45.2%
1940-2010 Average 10-Year Growth:	6.5%

Age Profile

Under 18 years:	24.3%
18 – 64 years of age:	60.1%
Age 65 and over:	15.6%

Median Age: 44.2 years

Racial Profile

White:	95.8%
Black/African American:	2.0%
American Indian/Alaska Native:	0.0%
Asian:	0.7%
All Other:	1.5%

Household Profile: The 2010 Census recorded 427 households in Volinia Township, 74.2% of which comprised a family. 81.4% of the family households were comprised of a husband-wife family. The average household size was 2.5 persons and the average family size was 2.9 persons.

Education Profile: The highest level of education attained by township residents of 25 years of age or greater is as follows:

High School Graduate:	42.6%
Associate's Degree:	9.0%
Bachelor's Degree:	8.1%
Graduate/Professional Degree:	5.3%

Income/Employment Profile:

The top five industries that accounted for the employment of township residents in 2010 were:

Manufacturing:	29.8%
Retail Trade:	11.6%
Professional, scientific, administrative, management, waste management services:	11.8%
Education services, health care, social assistance:	14.7%
Arts, entertainment, recreation, accommodations, food service:	7.2%

Income characteristics include:

Mean Household Income:	\$44,063
Mean Family Income:	\$50,313
Mean Non-Family Income:	\$20,096
Per Capita Income:	\$23,289
Persons below Poverty Level:	10.0%
Families Below Poverty Level:	10.7%

See other Appendices for additional information pertaining to Volinia Township and Cass County as a whole including demographics, land use, community facilities, natural resources, and additional features.

Wayne Township

CULTURAL FEATURES

Regional Context and Circulation

Wayne Township is located in the northwest quarter of Cass County along the Van Buren County line. The township is directly northeast of Dowagiac, which occupies a small portion of the township's southwest corner. Regional access is afforded by M-51 and M-62. M-51 serves as the township's western border and provides direct access to I-94 nine miles to the north. M-62 travels from the Indiana state line through Dowagiac and includes a short segment along the township's south edge. Within the township, the traditional grid-like road network is comprised nearly entirely of paved roads classified as "local" by the Cass County Road Commission. The three principal road segments classified as "primary" are Dutch Settlement Road along the township's south edge, Marcellus Highway in the township's southeast quarter and travelling southwest into Dowagiac, and Dewey Lake Street between M-51 and the Glenwood area.

Predominant Land Use Pattern

The Wayne Township landscape has three defining features. Most dominant is its extensive open spaces devoted primarily to farming but which are also characterized by wooded areas, wetlands, and similar open space environments. These landscapes also include scattered residences. In contrast are the township's two principal settlement areas of Glenwood and Twin Lakes. Glenwood, in the township's northeast quarter, includes approximately 50 residences. On the other hand, the Twin Lakes community reflects the comparatively high density lakefront development that characterizes many of Cass County's lakes. The Twin Lakes area accounts for approximately one-quarter of the township's dwellings. These lake residential areas are comprised largely of platted subdivisions with lots frequently less than 10,000 sq. ft. and, in many cases, building sites are less than 5,000 sq. ft. and 50' in width.

The M-51 corridor is the third defining feature of the township's landscape. The corridor reflects a mix of uses including agricultural, residential, commercial, and industrial and areas of a conservation character. Commercial uses along the corridor include tool sharpening, veterinary services, storage, canoe rentals, excavation and construction services, modular home sales, auto repair, and convenience

retail sales. Industrial activity along the corridor is in a state of transition. The Contech facility covers approximately 20 acres (buildings and parking) south of Dewey Lake Street but closed around 2009. No other industrial activity is present at this time.

Aside from the businesses along M-51, there are several businesses scattered throughout the township including a convenience store along Marcellus Highway in the central area of the township and recreational equipment sales in Glenwood.

The approximate portions of the township devoted to principal tax classifications are:

Land Use- (Tax Classification)	Approx. Acreage	Approx. Portion of Township
Agriculture / Forestry	13,579.6	62.6%
Residential	6,813.0	31.4%
Commercial	113.3	0.5%
Industrial.	54.9	0.3%
Public / Tax Exempt	643.6	3.0%
Pokagon Band of Potawatomi Indians	299.4	1.4%
Other	172.2	0.8%

Dwellings

The 2010 Census recorded 1,294 dwellings in the township, approximately 95% of which were single family dwellings including mobile homes. Mobile homes alone accounted for 10% of the township's single family dwellings. 79% of all housing units were occupied in 2010. Of the occupied units, 86% were occupied by the owner and the balance was renter-occupied. The median value of the owner-occupied housing units in 2010 was \$107,100.

Community Facilities

Public Water: None.

Public Sewer:

Dowagiac Department of Public Services serves M-51 north of Swamp Street, discharging to the Dowagiac Utilities Treatment Plant on M-62 on the west side of the city.

Police Protection:

County Sheriff's Dept.
State Police

Fire Protection:

Wayne Township Fire Department

Ambulance Service:

Pride Care Ambulance

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Cemeteries:

North Wayne Cemetery at east end of Corwin St.
Gage Cemetery at west end of Gage St.
S. Wayne Cemetery at east end of Gage St.
White Cemetery at east end of Flanders St.

Outdoor Recreation Facilities:

Doe-Wah-Jack's Canoe and Kayak

Natural Features

Topography: Wayne Township is generally level to mildly rolling. Approximately 85% of the township reflects grades of 6% or less. Approximately 10% of the township reflects grades of 6% to 12% and 5% reflect grades in excess of 12%. Those areas reflecting greater topographic relief are primarily situated along the township's southern periphery and the four square miles comprising its northeast corner.

Soils: According to the U.S. Soil Conservation Service, nearly all of Wayne Township is characterized by loam, sandy loam and loamy sand soils. The principal exceptions are muck soils typically in association with wetland areas, which are most dominant along the Dowagiac River corridor. The township's soils present varying degrees of limitations for building construction due to such factors as ponding, flooding, low strength, and shrink-swell potential. These obstacles can typically be overcome through special construction measures though at additional cost. The soils present more consistent severe limitations for septic tank absorption fields due to such factors as flooding, soil wetness, and poor filter qualities. These obstacles can also typically be overcome through special engineered fields excluding wetland areas. Less than 20% of the township's area presents only slight or moderate limitations to septic fields and these areas are not consolidated in any single location, although the northeast corner of the township reflects the greatest concentration of soils that are naturally more conducive for septic drain fields.

Approximately one-fifth of the township's land area is classified as "prime farmland," a condition based primarily on soil conditions. The Natural Resources Conservation Service generally defines *prime farmland* as land that is, under proper management, particularly well suited to food, feed, forage, fiber, and oilseed crops and is capable of producing sustained high yields. The majority of the township's prime farmland is located within one mile of its east and south boundaries and, to a lesser degree, to the north and west of Twin Lakes.

Principal Water Courses and Wetlands: The primary drainage course in Wayne Township is the Dowagiac River, which flows diagonally across its northwest quarter into Silver Creek Township. The Dowagiac Creek cuts across the township's southeast corner and ultimately empties into the Dowagiac River west of the city. Facilitating drainage in the township are several extensive areas of wetlands, the majority of which form a corridor enveloping much of the Dowagiac River and extending as much as a half-mile or more south of the river. The second principal wetland area is in the township's southwest corner just north of Dowagiac. These wetlands surround the small lakes of Cook and Pine and an unnamed stream that flows northwest and empties into the Dowagiac River in Silver Creek Township.

Wayne Township includes a number of comparatively small lakes in addition to Cook and Pine Lakes including Geer, Pitcher and Round Lakes in the northwest corner. More significant are the Twin Lakes in the center of the township and Mill Pond just east of Dowagiac. Combined, the north and south halves of Twin Lakes cover approximately 110 acres and are the only shorelines in the township that have been largely urbanized. Mill Pond has one of the more irregular shorelines of the county's water bodies and covers approximately 150 acres, nearly all of which are in Wayne Township.

In addition to the lakes, water courses and wetlands playing critical roles in facilitating drainage, these water resources also provide important wildlife habitat and recreation opportunities, and help to define the rural character of the community.

Demographic Features

Population and Growth

2010 Population:	2,654
2000-2010 Growth:	-7.2%
1940-2010 Growth:	137.2%
1940-2010 Average 10-Year Growth:	19.6%

Age Profile

Under 18 years:	20.6%
18 – 64 years of age:	63.2%
Age 65 and over:	16.2%
Median Age:	45.5 years

Racial Profile

White:	92.0%
Black/African American:	1.7%
American Indian/Alaska Native:	1.5%
Asian:	0.4%
All Other:	4.4%

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Household Profile: The 2010 Census recorded 1,029 households in Wayne Township, 73.5% of which comprised a family. 78.2% of the family households were comprised of a husband-wife family. The average household size was 2.6 persons and the average family size was 2.9 persons.

Education Profile: The highest level of education attained by township residents of 25 years of age or greater is as follows:

High School Graduate:	41.2%
Associate's Degree:	8.5%
Bachelor's Degree:	7.4%
Graduate/Professional Degree:	3.2%

Income/Employment Profile:

The top five industries that accounted for the employment of township residents were:

Manufacturing:	23.3%
Education services, health care, social assistance	21.0%
Retail Trade:	13.2%
Professional, scientific, administrative, management, waste management services:	8.8%
Arts, entertainment, recreation, accommodations, food service:	7.7%

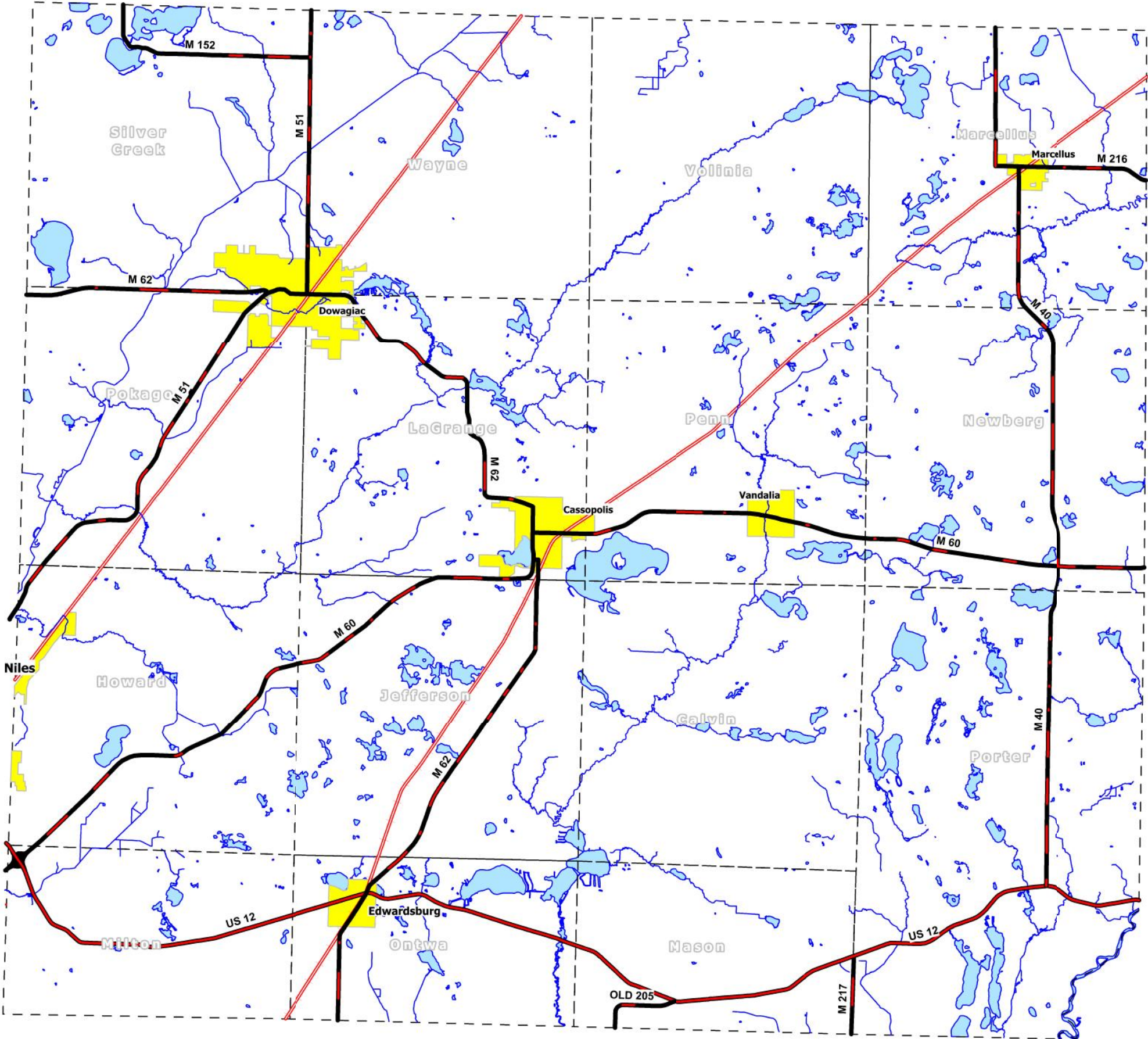
Income characteristics include:

Median Household Income:	\$43,750
Median Family Income:	\$51,019
Median Non-Family Income:	\$21,316
Per Capita Income:	\$20,008
Persons below Poverty Level:	16.8%
Families Below Poverty Level:	9.7%




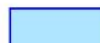
See other Appendices for additional information pertaining to Wayne Township and Cass County as a whole including demographics, land use, community facilities, natural resources, and additional features.

MUNICIPALITIES MAP

Cass County Master Plan



MUNICIPALITIES LEGEND

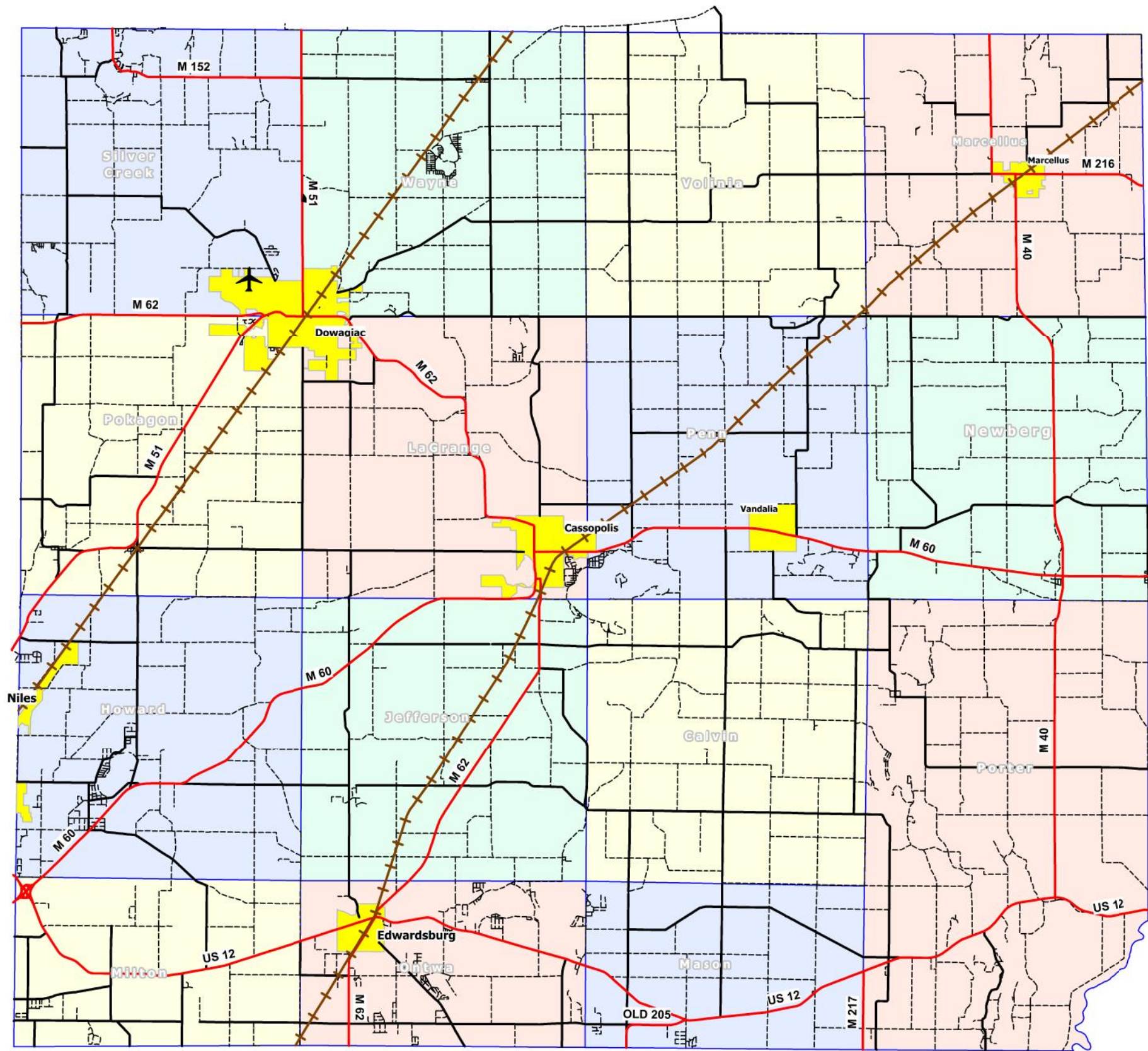
-  City/Village Boundary
-  Township Boundary
-  Rivers and Streams
-  Lakes and Ponds



July 1, 2014
Data Source: Information Systems

GENERAL CIRCULATION MAP

Cass County Master Plan



ROAD LEGEND

- County Local Roads
- County Primary Roads
- State / US Highways
- +—— Railroad
- ✈ Airport

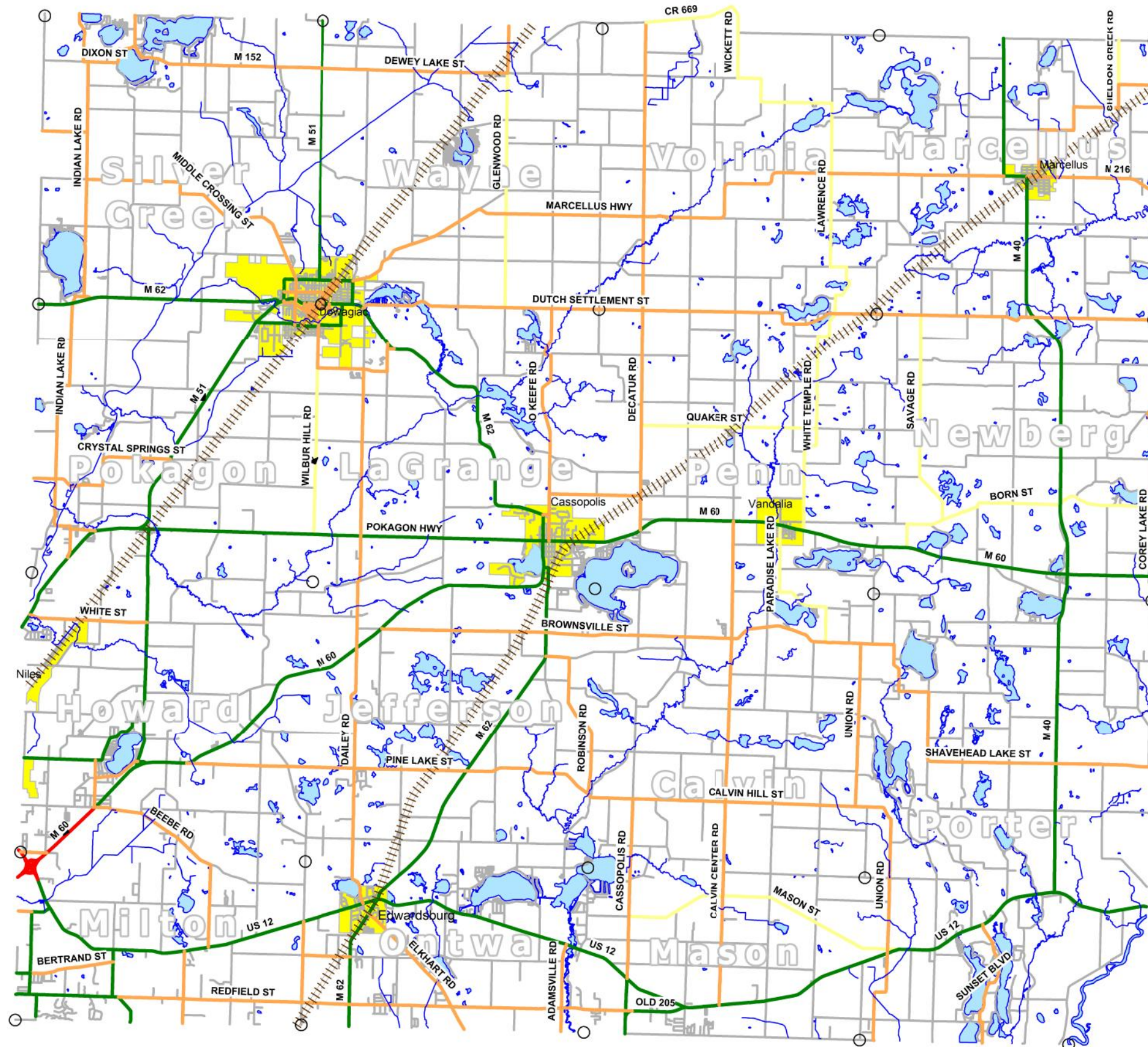


July 1, 2014
Data Source: Cass County Road Commission
Information Systems

0 29,960
feet

NATIONAL FUNCTIONAL CLASSIFICATION CIRCULATION MAP

Cass County Master Plan



NFC LEGEND

- Other Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local (other streets)
- Railroad
- Creek / River / Drain
- Lake / Pond / Marsh
- Township Boundary










July 1, 2014
Source: MDOT National Functional Classification (NFC)

GENERAL EXISTING LAND USE MAP

Cass County Master Plan

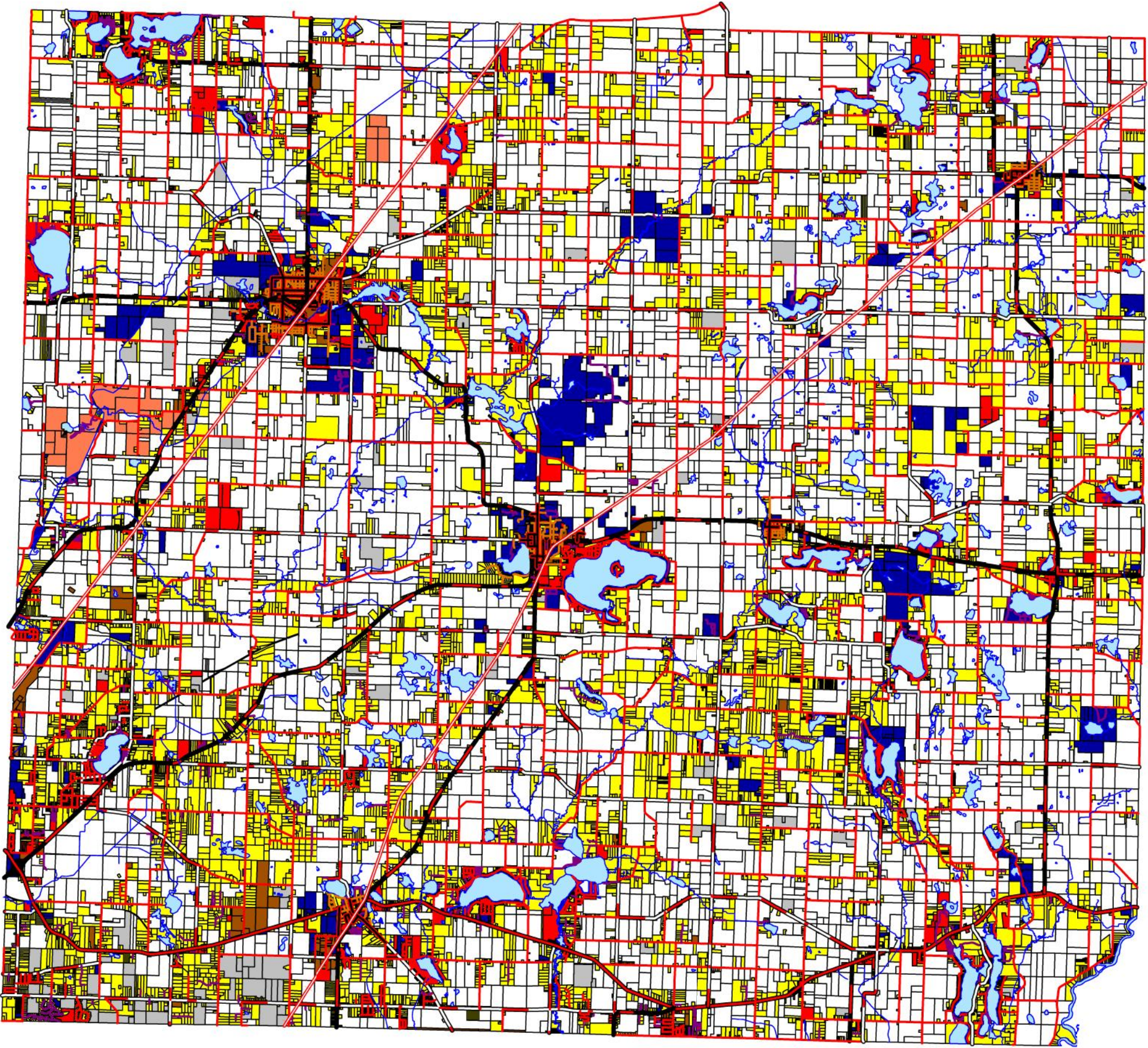
CLASS CODE LEGEND

-  Agriculture / Forestry
-  Residential
-  Commercial
-  Industrial
-  Public / Tax Exempt
-  Other
-  Pokagon Band of Potawatomi Indians



July 1, 2014
Data Source: Information Systems

See Appendix C of Master Plan for
summary description of each category.



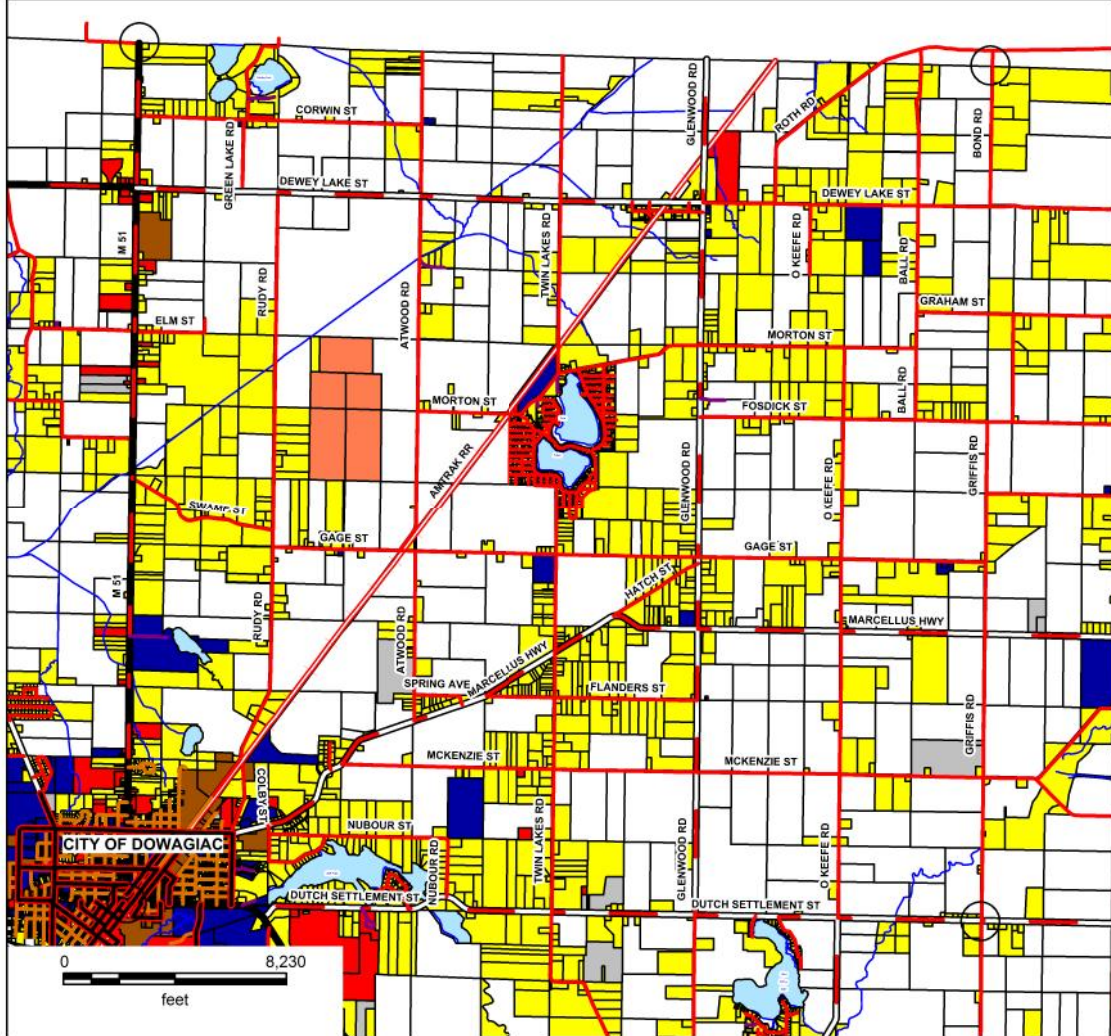
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GENERAL EXISTING LAND USE MAP

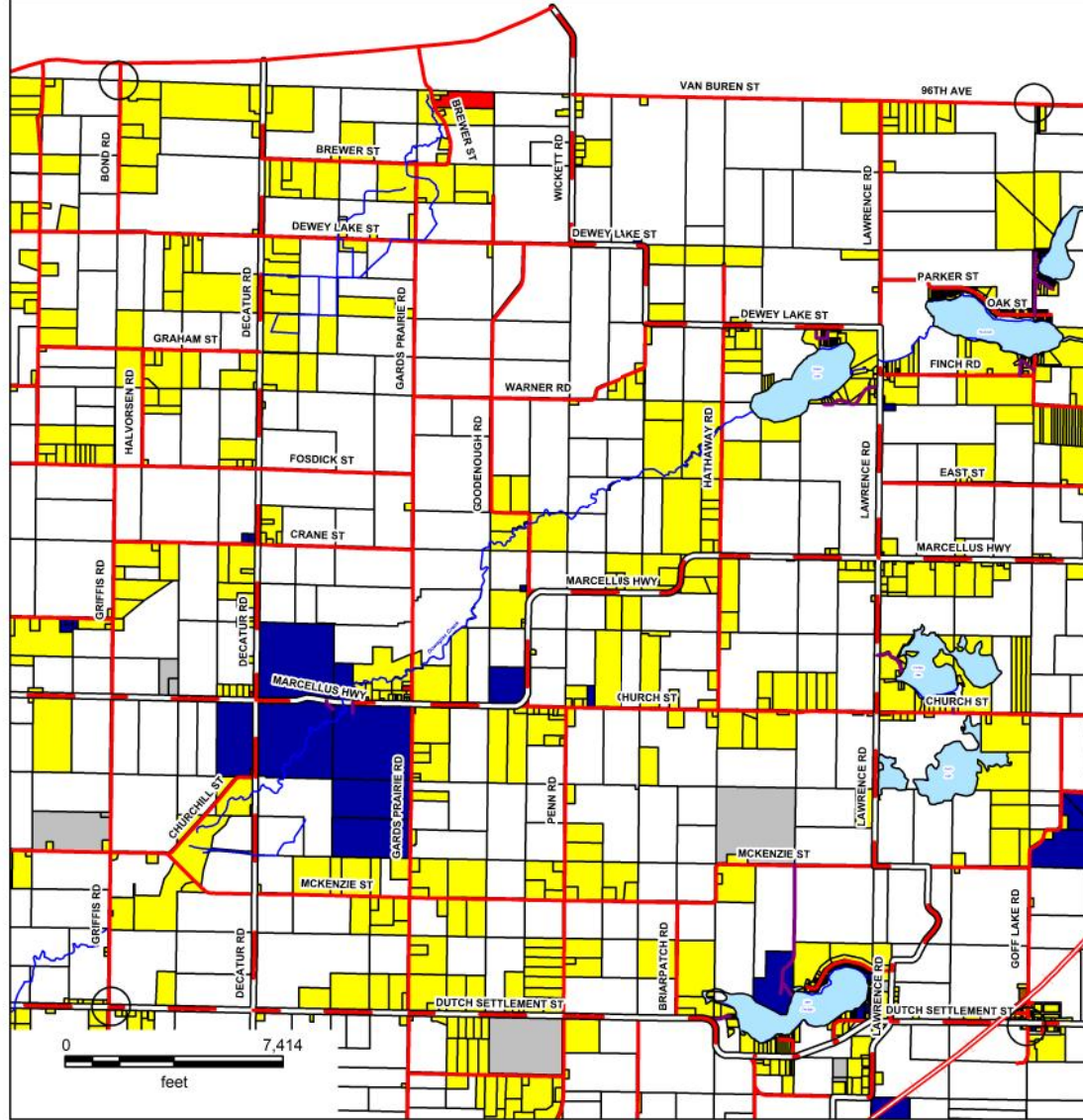
Wayne and Volinia Townships

Cass County Master Plan

Wayne Township



Volinia Township



CLASS CODE LEGEND

- Agriculture / Forestry
- Residential
- Commercial
- Industrial
- Public / Tax Exempt
- Other
- Pokagon Band of Potawatomi Indians
- Township Boundary





July 1, 2014
Data Source: Information Systems
See Appendix C of Master Plan for summary description of each category.

FLOODPLAIN MAP

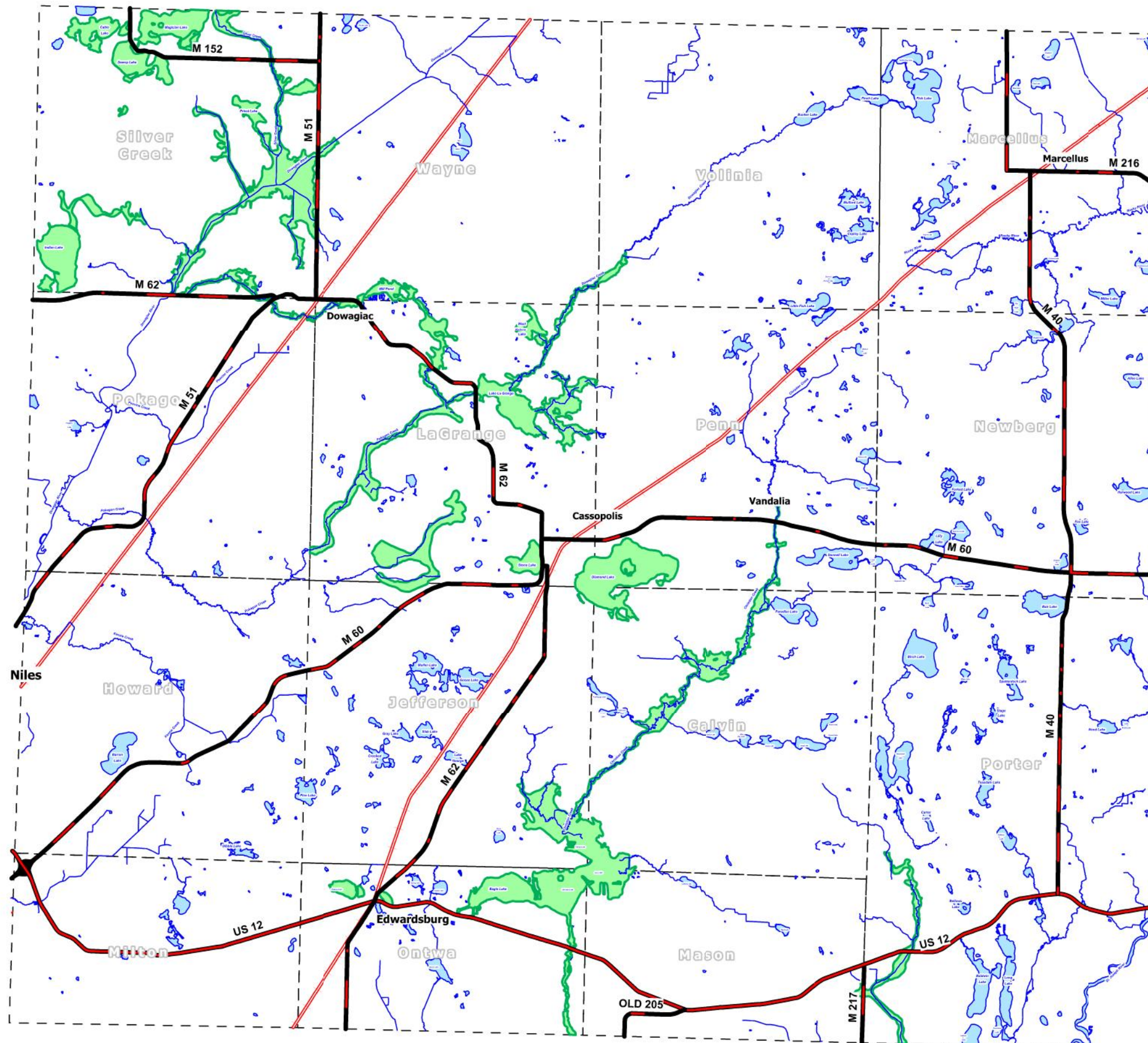
Cass County Master Plan

FLOODPLAIN LEGEND

- Rivers and Streams not within FEMA-designated 100 Year Floodplain
-  Lakes and Ponds not within FEMA-designated 100 Year Floodplain
-  FEMA-designated 100 Year Floodplain including lakes, ponds and streams contained within

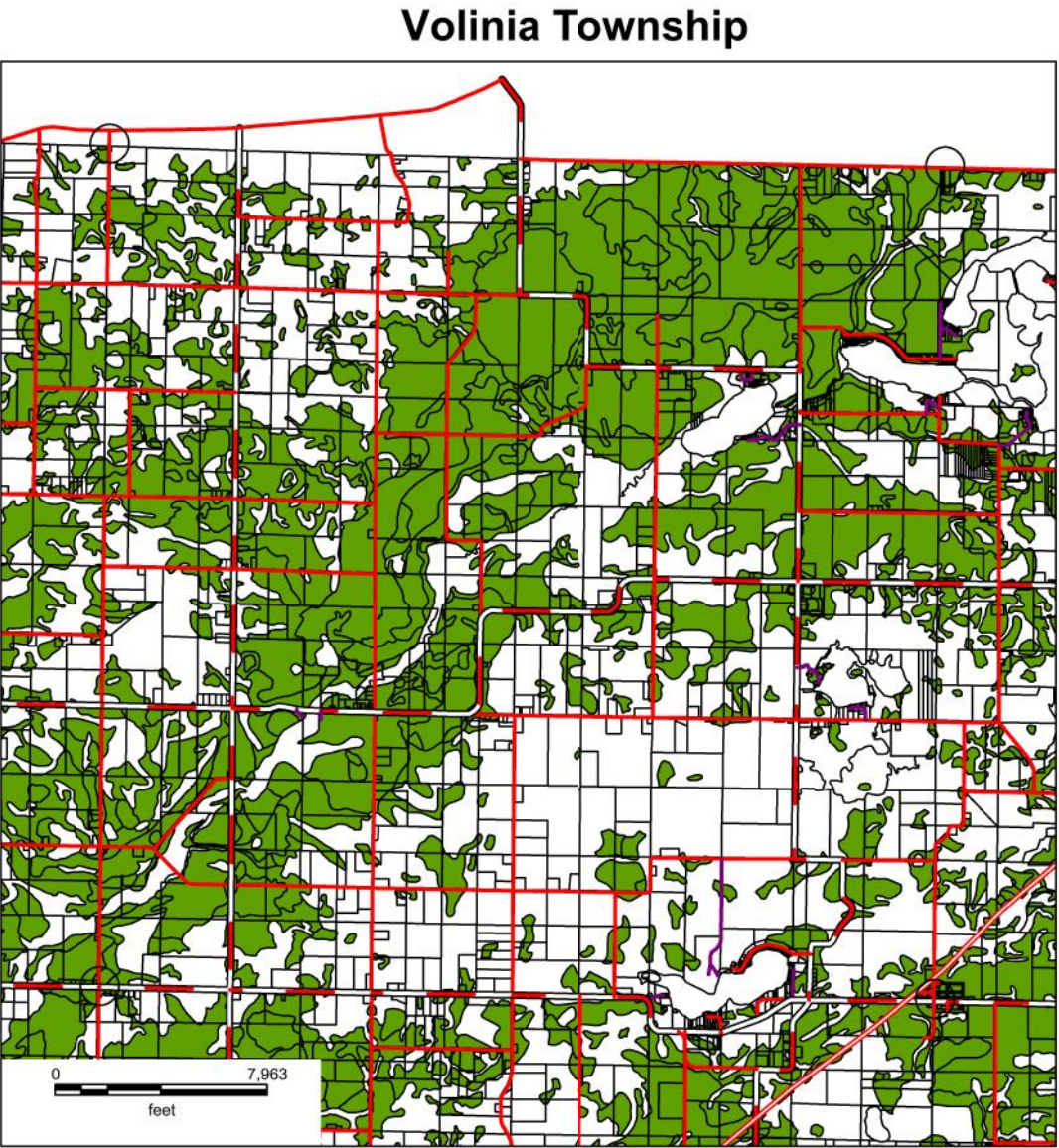
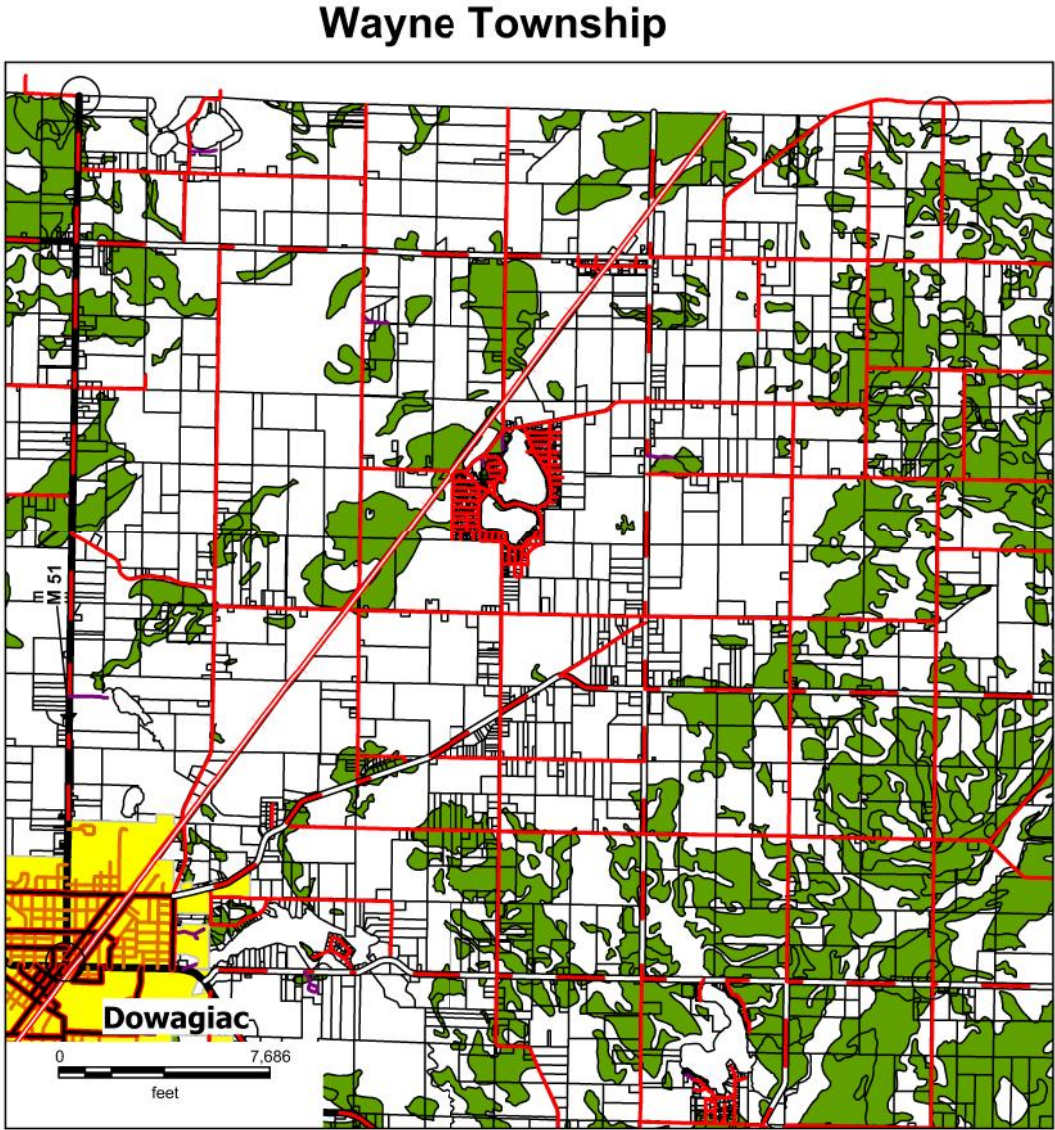


July 1, 2014
Data Source: FEMA



0 27,590
feet

Prime Farmland Map
Wayne and Volinia
Townships
Cass County Master Plan



**PRIME FARMLAND SOILS
LEGEND**

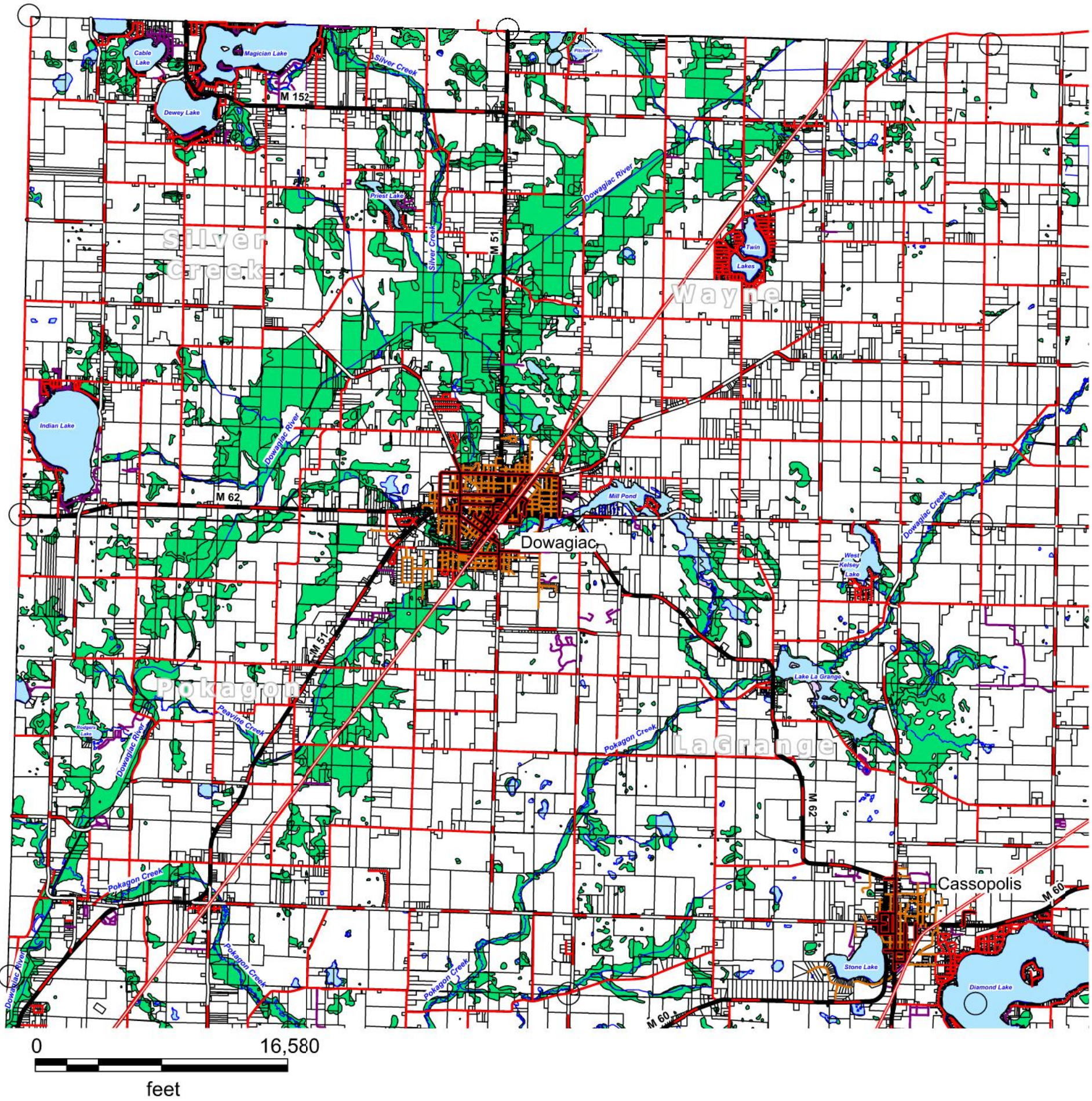
- City / Village Borders
- Prime Farmland Soils
- Township Boundary

July 1, 2014
Data Source: State of Michigan
Center for Geographic Information

WATER RESOURCES MAP

NORTHWEST QUADRANT

Cass County Master Plan



WATER RESOURCES LEGEND

- Rivers and Streams
- Lakes and Ponds
- Lacustrine Wetlands
- Palustrine Wetlands
- Riverine Wetlands



July 1, 2014
Data Source: National Fish and Wildlife Service
(www.fws.gov/nwi)