

MONTCALM TOWNSHIP

MASTER PLAN

**MONTCALM TOWNSHIP
MONTCALM COUNTY, MICHIGAN**

MONTCALM TOWNSHIP MASTER PLAN

Planning Commission Adoption
December 17, 2003

Township Board Adoption
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Prepared By The
**MONTCALM TOWNSHIP
PLANNING COMMISSION**

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MONTCALM COUNTY, MICHIGAN**

TABLE OF CONTENTS

| | | |
|--|-----|------------|
| Chapter One | | |
| OVERVIEW | | 1-1 |
| Introduction | 1-1 | |
| What is the Master Plan? | 1-1 | |
| Importance and Application of the Master Plan | 1-2 | |
| How the Plan Was Prepared | 1-3 | |
| Montcalm Township Overview | 1-3 | |
| Chapter Two | | |
| PLANNING ISSUES, GOALS and OBJECTIVES | | 2-1 |
| Introduction | 2-1 | |
| Planning Issues, Goals, and Objectives | 2-1 | |
| Chapter Three | | |
| FUTURE LAND USE STRATEGY | | 3-1 |
| Introduction | 3-1 | |
| Land Use Areas | 3-1 | |
| Conservation of Natural Resources | 3-7 | |
| Chapter Four | | |
| PUBLIC SERVICES STRATEGY | | 4-1 |
| Introduction | 4-1 | |
| Circulation | 4-1 | |
| Sewage Disposal and Potable Water | 4-2 | |
| Storm Water Management | 4-2 | |
| Police and Fire Protection Services | 4-3 | |
| Recreation | 4-4 | |
| Chapter Five | | |
| IMPLEMENTATION STRATEGIES | | 5-1 |
| Introduction | 5-1 | |
| Public Support | 5-1 | |
| Land Development Codes | 5-2 | |
| Capital Improvements Programming | 5-4 | |
| Appendix A | | |
| CULTURAL FEATURES | | A-1 |
| Regional Context | A-1 | |
| Access and Circulation | A-1 | |
| Land Use and Development | A-3 | |
| Community Facilities and Services | A-5 | |
| Neighboring Conditions | A-7 | |
| Appendix B | | |
| ENVIRONMENTAL FEATURES | | B-1 |
| Geology and Topography | B-1 | |
| Drainage and Water Courses | B-1 | |
| Groundwater | B-2 | |
| Vegetation | B-2 | |
| Soils | B-3 | |
| Climate | B-4 | |

Appendix C

DEMOGRAPHIC FEATURES C-1

| | |
|-------------------------------------|-----|
| Population Growth Trends | C-1 |
| Population Projections | C-2 |
| Social and-Economic Characteristics | C-2 |

Appendix D

INVENTORY MAPS..... D-1

FIGURES

FIGURE 3-1: Future Land Use Map, page 3-8

The following inventory maps are contained in Appendix D

- Major Public Roads
- General Existing Land Use
- Land Division
- Wetlands
- Woodlands
- Farmland Resources

TABLES

| | <u>page</u> |
|--|-------------|
| TABLE A-1: Selected Housing Characteristics | A-3 |
| TABLE C-1: Population Trends & Growth Rates | C-1 |
| TABLE C-2: Montcalm Township Population Projections | C-2 |
| TABLE C-3: Race, 2000 | C-3 |
| TABLE C-4: Age, 2000 | C-3 |
| TABLE C-5: Household Type, 2000 | C-3 |
| TABLE C-6: Employment by Industry, 2000 | C-4 |
| TABLE C-7: Income, 1999 | C-5 |
| TABLE C-8: Highest Level of Education Attainment, 2000 | C-5 |

Chapter One

OVERVIEW

Introduction

This Chapter provides an overview of Montcalm Township and the Master Plan's role, importance, and preparation process. It presents the framework for what follows by defining what the Master Plan is and what it is intended to accomplish. Understanding the fundamentals of the Master Plan will enable Montcalm Township residents and officials to appreciate the role it plays in ensuring the future welfare of the Township, its residents and its resources. Embracing this Plan as a vital tool in preserving and enhancing the public health, safety, and welfare of the Township is essential if this Plan is to be effective.

What is the Master Plan?

Purpose

Just as individuals and families plan for their future well being, so must municipalities. Just as individuals may open savings accounts in order to purchase new farm equipment five years in the future, or develop plans for a larger home for a growing family, municipalities must look to the future and take specific actions to address the current and future needs of the community. Such actions may involve improvements to the roadway network, improvements to the level of emergency services, and the pursuit of new local employment opportunities.

The Master Plan is a policy document that identifies how growth and associated land development should be guided to best ensure the future welfare of the community. The following key words and phrases can generally describe the Master Plan:

FUTURE ORIENTED: The plan concerns itself with long-range planning to guide and manage future growth and land use. The plan is not only a picture of the community today, but a guide to how the community should evolve over the next ten to twenty years in response to growth and community aspirations.

GENERAL: The plan establishes broad principles and policies to address future land use.

COMPREHENSIVE: The Plan is comprehensive in that it addresses all principal types of land use and the practical geographic boundaries of each.

A PLAN: The Plan is a specific tangible document which consists of both text and maps, a key portion of which presents and illustrates the Township's policies regarding its planned future land use pattern and associated public services.

DYNAMIC: The Plan is intended to be continually evolving in light of the aspirations of local residents, changing conditions in the Township, and new strategies to manage growth.

The Montcalm Township Planning Commission, under the authority of the Michigan Township Planning Act, P.A. 168 of 1959 (as amended), prepared this Master Plan. The Act provides for the development of plans by a Planning Commission for the purposes of, in part:

"...to promote public health, safety, and general welfare; to encourage the use of resources in accordance with their character and adaptability; to avoid the overcrowding of land by buildings or people; to lessen congestion on public roads and streets...and to consider the character of each Township and its suitability for particular uses judged in terms of such factors as the trend in land and population development."

This Master Plan is not a regulatory document, but a "policy plan" to be implemented through regulatory tools. For example, though the Master Plan is not a zoning ordinance, the Master Plan's recommendations and policies will serve as a basis for updating the current Montcalm Township Zoning Ordinance. In fact, the Michigan Township Zoning Act which provides Michigan Townships with the statutory authority to adopt zoning regulations stipulates that a municipality's zoning ordinance "shall be based upon a plan..." This Master Plan addresses this statutory requirement and maintains a strong legal foundation for the Township's zoning regulations.

The Master Plan supports these long-term interests by providing a future-oriented strategy that aggressively seeks to protect them. Intensive development without adequate public services to meet the demands of such development, as well as development which places excessive demands upon the Township's natural resources (on-site sewage disposal, potable water quality, etc.) can lead the Township into a future of tremendous social and environmental risks which will seriously threaten the public's health, safety, and welfare. Chapters Three and Four establish specific future land use and public services strategies to secure these and other long-term interests.

Elements of the Master Plan

In addition to this introductory chapter, the Plan consists of the following key components:

- 1) A discussion of important planning issues facing the Township today, and associated goals and objectives that address these issues (Chapter Two).
- 2) The planned future land use pattern for the Township (Chapter Three).
- 3) The planned future delivery of public services in the Township (Chapter Four).
- 4) Background studies that provide a review of existing conditions and trends in the Township (Appendices).

Importance and Application of the Master Plan

The importance and application of this Plan are reflected in both the long-term interests of the Township and the day-to-day administration of the Township's planning and zoning program.

Long Term Interests

There are a number of interests shared by residents and officials of Montcalm Township today that can be expected to continue for years to come and be similarly shared by new future residents and Township officials. Some of these important interests include:

- Minimizing increased tax burdens.
- Protecting farmland, open spaces, natural resources, and rural character.
- Ensuring appropriate land use to meet the consumer and employment needs of residents.
- Ensuring appropriate land use and adequate services to protect the public health, safety, and welfare of residents and visitors.

Day-To-Day Administration

The Montcalm Township Master Plan plays an equally important role in the day-to-day planning and zoning efforts of the Township:

- Advisory Policies: The Plan is an official advisory policy statement that should be readily shared with existing and prospective landowners and developers to inform them of the long term intentions of the Township regarding land use and, thus, more closely integrate development proposals with the policies of the Plan.
- Regulatory Programs: The Plan establishes a practical basis for the Township to revise, update, or otherwise prepare regulatory programs to ensure that the Plan's policies are implemented, including zoning and land division regulations.
- Review of Land Development Proposals: Chapter Two includes a list of Township goals and objectives that should be reviewed in light of future proposed rezoning requests, site plans, and related land use proposals, to further establish a record upon which the proposal can be evaluated. Equally important, Chapter Three provides policies regarding the planned future land use pattern in the Township, valuable reference points upon which land use proposals should be evaluated.
- Public Services Improvements: The cost-effective use of Montcalm Township's tax dollars requires the identification of a planned future land use pattern in order to pinpoint future population centers in the Township and areas planned for commercial and/or industrial growth. While some areas in the Township may require future improvements to public services and infrastructure, such as roads and fire protection, commercial/industrial areas and population centers typically require higher levels of public services. This Plan provides the Township with the ability to prepare for and better pinpoint areas of future need, rather than always playing "catch-up" while the Township's health, safety, and

welfare may be at risk. Chapter Four provides importance guidance in this area.

- Intergovernmental Coordination: This Plan provides the basis for Montcalm Township to communicate effectively with its neighbors regarding both the impact of their planning and zoning actions and opportunities for mutual gain through coordinated efforts in the areas of land use and public services.
- Factual Reference: The Plan includes a factual overview of relevant trends and conditions in the Township. This factual profile can educate 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

During the late 1990's, Montcalm Township officials grew increasingly concerned about the proper management of future growth and development, and the ability of its zoning regulations to ensure the type of future Township character that its residents support. To focus greater efforts in the area of long term community planning, the Township initiated the development of a new Master Plan. The Township sought the expertise of a professional planner to assist them with the preparation of the Plan. In the winter of 2002, a strategy with multiple tasks was developed to guide the Plan's preparation and the tasks followed a purposeful sequential process that took approximately one year to complete.

The Planning Commission's initial efforts were directed at establishing a database about the Township for use during the planning process. This involved a review of physical and cultural conditions in the Township including soils, topography, road network, existing land use patterns, public services, and demographic characteristics.

A mail survey was administered in the summer of 2002 to gain insight into local attitudes on land use, development, and public services. Some of the dominant attitudes expressed by the survey respondents included:

- manage growth and development.
- maintain rural character.
- protect natural resources and farmland.
- limit the amount of residential development in agricultural areas.
- provide opportunities for limited commercial and industrial development.

The Planning Commission then directed its efforts to identifying the important planning issues facing the community and established a set of goal and objective statements to address these issues and guide the policies of the Plan.

Several alternative future land use patterns and strategies were then developed based upon the data collected to date, and the goals and objectives statements. The Planning Commission studied these alternatives and selected the most preferable. Based upon the selected alternative, the Planning Commission assembled a complete draft of the Plan suitable for presentation to the residents of the community. The Planning Commission held a public hearing on the draft Plan on November 5, 2003 and the Plan was finalized and adopted by the Planning Commission on December 17, 2003. The Township Board adopted the Plan on January 14, 2004.

Montcalm Township Overview

The following is a brief overview of Montcalm Township. A more detailed review of trends and conditions can be found in Appendix A, B, and C.

Montcalm Township is a quiet rural community located in the southwest region of Montcalm County in the central region of Michigan's Lower Peninsula. Principal surrounding townships are Pine and Douglas to the north, Sidney to the east, Eureka to the south, and Spencer to the west in Kent County. The City of Greenville, with a population of approximately 7,900, occupies portions of the congressional boundaries of Eureka Township and is within one-half mile of Montcalm Township's southern border. The nearest major regional urban center is Grand Rapids, 25 miles southwest, with a population of approximately 185,000. The Township's 2000 population was 3,178 and consisted of 1,154 households and 887 families. The average household size was 2.75 persons, and the average family size was 3.08 persons.

The Township's topography can be generally described as level to nearly level. The most dominant water course is the Flat River, traveling south through the west half of the Township. Assisting in the collection and discharge of runoff is a network of lakes and wetlands. The Township is characterized by 17 lakes approaching 10 acres or more in size, and approximately four thousand acres of wetlands. The lakes are scattered throughout the Township. The largest is Turk Lake in the Township's north central region, just east of M-91, and covers approximately 175 acres. Wetlands are located throughout the Township but are most prominent along the Flat River and Dickerson Creek corridors. In

addition, there are approximately 3,000 acres of upland woodlands.

Regional access to the Township is provided by M-57 and M-91. M-91 travels north-south through the center of the Township, connecting with M-46 to the north and M-57 to the south. Montcalm Township's local roadway network does not exhibit the dominant and typical square-mile grid pattern characteristic of the majority of townships in southern Michigan. The Township's many lakes and streams and abundant wetlands interfered with the development of a square-mile grid network. Wise and Sidney Roads are the most heavily traveled thoroughfares other than M-91.

Most of the Township's landscape is dominated by farm operations, natural open spaces such as woodlands and wetlands, and scattered residences. Farming operations occupy approximately 45% (10,500 acres) of the Township. Some of the more commonly harvested crops are potatoes, beans, corn, and hay. Residential development comprises approximately 4.5% (1,100 acres) of the acreage in the Township. The 2000 Census recorded 1,321 dwelling units, 78.7% of which were single family dwellings constructed on-site and nearly the entire balance were comprised of mobile homes (20.4%).

Residential development can be divided into three principal forms. The first and original form is that of farm homesteads. A second form of residential development is that of platted subdivisions, and account for the majority of dwellings in the Township. Platted subdivisions initially appeared around the Turk Lake area as early as the 1920s, including Sunny Side Terrace, Pearl Beach, and Turk Lake Point. The 1950s through the 1970s witnessed the development of the majority of the subdivisions. More than 30 subdivisions exist in the Township today. Lot sizes in the subdivisions vary, but typically range between one-quarter to one acre. Those subdivisions developed prior to 1960 tend to reflect smaller lot sizes, including lots as small as 3,200 square feet (one-fourteenth of an acre). However, many of the residences in these subdivisions occupy two or more lots. The subdivisions are scattered although the majority abut or are in close proximity to Turk, Perch and Fish Lakes, and in the Gowen area. The third principal form of residential development that has evolved is residences located on five to ten-acre parcels fronting on the principal road network (Section-line and similar roads).

Commercial development in Montcalm Township covers approximately 70 acres and is primarily limited to the M-91 corridor, Gowen, and the Peck/Vining Roads area. Approximately 35 retail and service-oriented business are present. The M-91 corridor accounts for about two-thirds of these business, the majority being situated in the northern half of the Township between Sidney Road and the Turk Lake area, and within one mile of Wise Road (the Township's southern boundary). There are approximately seven industrial businesses in the Township. The majority are located along Vining Road near Peck Road and consist of storage facilities, metal fabricators and a trucking company. These facilities occupy the old Ore-Ida potato processing plant. The plant was abandoned in the late 1980's and is now part of the state's Renaissance Zone program. The program provides state tax abatements to encourage, in part, the reuse of abandoned facilities.

A five member Township Board governs Montcalm Township. Township offices are located in the Township Hall at the northwest corner of M-91 and Colby Road. There is no public sewer or water in Montcalm Township. Montcalm Township provides fire protection to area residents through the Montcalm Township Fire Department. The Township's single fire station is located adjacent to the Township Hall on M-91 at Colby Road. Police protection services are provided by the Montcalm County Sheriff's Department. The Township operates a single recreation site, comprised of the Township Hall property and its associated recreation fields and facilities. Park facilities at the site include a tennis court, basketball courts, baseball field, picnic shelter, playground, and nature trails. Township residents also have access to the numerous recreational facilities and services of other public bodies including the school facilities and programs of the local school districts.

Chapter Two

PLANNING ISSUES, GOALS & OBJECTIVES

Introduction

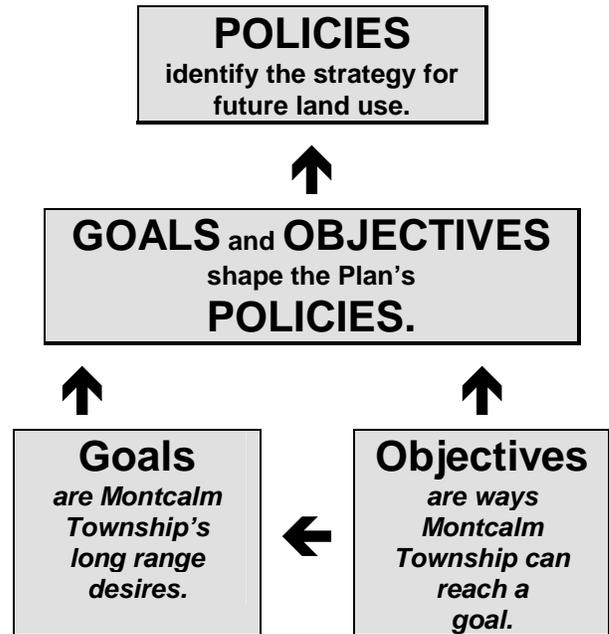
The primary goal of this Plan is to establish a basis for future land use and public services in Montcalm Township. Through the development of this Plan, the Township chose to be actively involved in guiding and shaping future growth and development in the community and not allow the community to evolve merely by chance. To effectively plan for the Township's well being with regard to future land use and public services, it is necessary to identify important planning issues facing the community and clarify its long term goals and objectives. Following is a presentation of these planning issues and related goals and objectives.

The goals and objectives are important for several reasons:

- The goals and objectives provide current and future residents of Montcalm Township with an overview of the intended future character of the Township.
- The goals and objectives identify and outline the basic parameters which should be used in guiding land use and public services policies in the Township.
- The goals and objectives serve as references upon which future rezoning and land development decisions can be evaluated.

Planning Issues, Goals & Objectives

A number of key planning issues are apparent today. These issues vary in scope and are clearly inter-related. The future quality of life and character of the Township will be largely shaped by the Township's strategy in dealing with these issues. Each issue presented in this Chapter is followed by a set of goal and objective statements. Planning goals are statements that express the Township's long range desires. Each goal has accompanying objectives which are general strategies that the Township can pursue to attain the specified goal. For example, a goal of the Palomino family may be to open a commercial stable in Montcalm Township, while two of the family's objectives may be to seek a loan and meet with a real estate agent to look at properties.



Goals, Objectives, and Policies of the Plan

The planning issues, and associated goals and objectives, are divided into the following major categories:

- Growth Management
- Community Character and Environment
- Farmland Protection
- Residential Development
- Commercial Development
- Industrial Development
- Circulation
- Regional Coordination

The planning issues presented in the following pages are not intended to be all inclusive. Rather, they are presented as the primary issues that the community must address as it establishes a future for itself. These issues will evolve over time and should be reexamined periodically and clarified as appropriate.

Growth Management

Since 1930, Montcalm Township has yet to experience anything but positive population growth. Its ten-year growth rates have ranged from 8.7% – 37.3% and generally outpaced that of the county and state. Though the past 20 years has witnessed a slowing growth rate (10.4% during the 1990s), it is reasonable to anticipate growth pressures in the coming 20 years. Montcalm Township is a very desirable place to live, with abundant natural resources and open spaces, easy access to highways and employment centers, an overall rural character, and nearby retail and other urban services.

It is reasonable to anticipate that the population of the Township may increase by 1,000 persons or more during the next 20 years (see Appendix C). Based upon an average household size of 2.8 persons, such a population increase would yield approximately 360 new households. The development of a single 80-acre parcel alone, as a platted or condominium subdivision, could potentially yield 60 new dwellings and 170 new residents. The character and quality of life will be impacted by the way the Township chooses to manage future growth and development. Managed growth can minimize unnecessary loss of natural resources including farmland; preserve the Township's existing character and environmental integrity; encourage orderly development; assure adequate public services and wise expenditures of Township funds; and limit traffic hazards and nuisances.

Tax revenues dictate, in part, the extent and quality of public services. Although development will increase the Township's tax base, the same development will place additional demands upon public services. Contrary to traditional planning wisdom and thought, recent research has shown that development does not necessarily "pay its way," particularly as it applies to traditional single family residential development. Development patterns that minimize new public costs should be sought where practical.

In this regard, it is advantageous to maintain a compact form of growth and development and, to the extent it is practical, locate higher density and intensity development near or adjacent to areas currently being served with higher levels of public services or anticipated to be served by such services in the future. Current police and fire protection services, and the roadway network, may be meeting the present needs of area residents. High growth rates that may be brought on by market conditions and zoning provisions will necessitate greater expenditures of Township funds. Maintaining the current quality of public services, let alone the pursuit of improvements, can be very difficult in the face of unmanaged growth and development.

This Plan must provide a strategy for effectively shaping and guiding future growth and development in a feasible manner, consistent with the aspirations of the citizenry of the Township and the opportunities and constraints presented by its natural and cultural characteristics.

Individual properties and land uses exist within a network of adjoining and nearby properties and land uses. This weave of uses helps to establish the character of the Township. The accommodation of growth and development should assure compatibility between land uses and the preservation of the dominant rural character of the community.

GROWTH MANAGEMENT GOAL: *Guide future development in a manner that assures land use patterns compatible with public facilities and services and the cost-effective use of tax dollars, and the preservation of natural resources, rural character, and harmonious land use patterns.*

Objectives

- 1) Identify locations in the Township by sound planning and zoning that are appropriate for agricultural, residential, and non-residential use, taking into account the constraints and opportunities presented by the Township's natural features and the availability of public facilities and services, including road infrastructure.
- 2) Preserve the Township's natural resources through a coordinated future land use strategy and related implementation tools that permit

reasonable use of land while discouraging unnecessary destruction or loss of natural resources, including farmland resources, wetlands and woodlands.

- 3) Establish effective land use and development review regulations to ensure development is compatible with the policies, goals and objectives of this Plan.
- 4) Guide development into areas where public facilities and services have adequate capacity to accommodate the growth and increased development intensities, and where the provision or expansion of public facilities is cost-effective.
- 5) Prohibit new growth and development that requires levels of public facilities and services not available, until the time such levels of services become available.
- 6) Provide regular opportunities for substantive public input on growth and development issues facing the Township.
- 7) Separate incompatible land uses by distance, natural features, or man-made landscape buffers that adequately screen or mitigate adverse impacts.
- 8) Wherever legally permissible, local regulations should require new developments pay to the Township the direct and indirect public services costs associated with that development. These costs should not be imposed on existing residents, except where public interests and benefits may be at stake.
- 9) Discourage public services improvements that will have the effect of encouraging excessive growth and development, or development at a rate beyond the Township's ability to ensure adequate public health, safety, and welfare, or development in areas of the Township not designated for such growth.
- 10) Continually monitor local attitudes about public facilities and services, including police and fire protection, water and sewer, and recreation.
- 11) Explore options to address identified public service and/or facility needs and pursue strategies to address such needs.

Community Character and the Environment

The protection of the Township's rural character and natural resources is extremely important to local residents. "*Rural character*" is a subjective quality, but is typically associated with an overall perception of limited urban development, and extensive open spaces comprised of farmland and/or other open landscapes including woodlands, wetlands, and fields. These elements are important in shaping the character of the Township, and provide vital environmental roles including wildlife habitats, flood control, water purification, groundwater recharge, and air quality. The Township has abundant natural resources and sensitive environmental features. Preservation of these resources can be very difficult because the process of encroachment can occur slowly. Substantial damage to an entire ecosystem frequently occurs over a long period of time. Rural character is also frequently associated with small village settlements that exhibit characteristics common decades ago, including human-scale buildings and spaces, pedestrian activity, and a sense of vitality.

Residents strongly support the existing rural character of the community and its resources, and want these features to be important parts of the Township's future. Effective protection of rural character and the natural environment does not require the prohibition of growth and development. Managed growth and development encourages the continuation of the Township's overall rural character. The preservation of rural character and environmental resources in the face of growth and development is dependent upon site development practices that actively incorporate the protection of open spaces, natural resources and environmental ecosystems into the development plan. Limitations on the extent to which suburban and urban development patterns are permitted to encroach into more rural and resource-rich areas are an important part of the equation.

Increased environmental knowledge, awareness, and education, when incorporated into a comprehensive planning strategy, can minimize the potential for environmental degradation. Establishment and protection of interconnected systems of natural/environmental areas, including wetlands, woodlands, stream corridors, and open fields can provide a diverse and viable habitat for wildlife and native plants. Zoning and related development regulations can provide for the protection of the Township's natural resources and rural character.

An important component in the protection of the township's rural character is the preservation of the character of the Township's historic settlements such as Gowen and Turk Lake. This settlement area, surrounded by farmland, embodies a special character unlike the balance of the township. Recognition of the more urban pockets, such as segments of the M-91 corridor, is equally important. The mixed commercial, residential, and agricultural land use pattern of this thoroughfare contributes to the overall fabric of the Township and its character. The manner in which these areas are maintained, expanded, and/or enhanced will similarly impact the perception of these areas, their contributions to the community, and the extent to which they are a valued component of the community.

COMMUNITY CHARACTER and ENVIRONMENT

GOAL: *Preserve the dominant rural character of Montcalm Township and its environmental resources and integrity.*

Objectives

- 1) Encourage land development designed in scale with existing developed areas and the dominant rural character of the community, through reasonable standards addressing density, building size, height, and other development features.
- 2) Encourage land development which actively strives to preserve open spaces as part of a development project (woodlands, wetlands, and fields), by use of such tools as conservation easements, land trusts, and more flexible development standards.
- 3) Encourage the maintenance of historically significant structures and a structurally sound housing stock, and the rehabilitation or removal of blighted structures and yard areas.
- 4) Ensure that the quantity and quality of new development does not unreasonably create increases in air, noise, land, and water pollution, or the degradation of land and water resource environments including groundwater.
- 5) Appropriate limitations should be placed on development in environmentally sensitive areas, and all development should be in compliance with applicable local, county, state, and federal regulations.
- 6) Review proposed development in light of its potential impact upon wetlands, woodlands, and other natural resource areas.
- 7) Educate the public about waste management and the Township's fundamental reliance upon groundwater resources for potable water supplies and the potential detrimental effects of irresponsible land use and development practices.

- 8) Recognize the special environmental role of the Flat River, Dickerson Creek and other key drainage corridors and their associated woodland and wetland environments, and discourage development that will disrupt their natural character.
- 9) Recognize the attraction to lakefront development while, at the same time, the important environmental and recreational roles of Turk Lake, Perch Lake, and the Township's many other water bodies, and encourage the environmental vitality of these resources.

Farmland Protection

Montcalm Township has, historically, been a strong farming community. Today, approximately 45% of the acreage in the Township is devoted to agricultural use. However it is important to note that the number of farms in the Township has declined over the years, as has the total acreage devoted to farming. Factors that will encourage the conversion and disinvestments in farming operations include the agricultural economic environment combined with the increasing developmental value of land. Permitting a comparatively high level of residential development in a community's agricultural area will encourage residential encroachment of farmlands, increased land use conflicts between farm and non-farm residents, and higher property assessment values and a decreased long-term business environment for agriculture – all of which collectively hinder the long term economic viability of the farm operations.

The farmland resources provide important food and fiber to both local and regional populations, are an important source of income, and contribute to the economic stability of the local economy. Farmland has been found to typically generate more municipal revenues than the costs associated with the municipal services it requires. This is in contrast to traditional single family development. Public sentiment in the community strongly supports the preservation of farmland and limitations on residential encroachment.

Effective farmland preservation is dependent upon the management of both the number and size of new non-farm lots. This can be accomplished through coordinated zoning regulations. However, of equal significance is the number of local and state programs designed to establish alternative preservation options to landowners, including the Purchase of Development Rights (PDR). A PDR program enables a landowner to voluntarily sell the development rights of the land to a governmental body in turn for placing an easement on the land prohibiting future non-farm development. The landowner receives development value for the land while the land is placed in a preservation status.

Of equal importance is the opportunity for Transfer of Development Rights (TDR). This strategy enables a landowner to transfer (through purchase) the farm parcel's development rights to another parcel in an area planned for growth and development. Both the sale and transfer of development rights provides landowners the opportunity to realize the development value of their land without having to actually develop it. Under both programs, the other private property rights remain in tact. The protected land remains in private ownership and can be sold to anyone at any price. However the land cannot be developed for residential, commercial or industrial purposes.

In Montcalm Township, the existing concentration of agricultural operations is on large parcels and there is a comparatively limited extent of residential encroachment into these farm areas. These conditions create the potential for the preservation of farmland. As residential encroachment increases, the viability of farm operations and the preservation of farmland resources decrease. In such cases, attention begins to focus more on the preservation of open spaces and rural character.

The Plan must recognize the economic and other challenges facing the local farming community. The Township must also recognize the economic benefits of local farm operations not only for their productive capacity and contribution to the local economy, but also for their limited demand on public services, infrastructure, and township revenues. If Montcalm Township can implement viable preservation options to owners of farmland, it can strengthen the industry on a long-term basis and benefit the community as a whole.

FARMLAND GOAL: *Actively encourage the continuation of local farming operations and the long-term protection of farmland resources.*

Objectives:

- 1) Identify areas that are most suited to support long-term farming, and minimize land use and other hindrances to agriculture through complementary zoning provisions.
- 2) Minimize potential land use conflicts in designated agricultural areas by limiting the encroachment of incompatible land uses and establishing a Right-to-Farm disclosure program designed to insure that new builders/owners of homes in designated agricultural areas are aware of the fact that the primary and preferred use of land in such designated agricultural areas is agriculture. The statement should provide notice to new homeowners to expect certain odors, noises, dust, and use of crop food and crop protection products.

- 3) Limit the amount of non-farm residential development permitted in designated agricultural areas and, to the extent such development does occur, discourage large acreage lots that unnecessarily consume and accelerate the loss of farmland acreage.
- 4) To the extent that residential development occurs in agricultural areas, encourage development on less productive farmland.
- 5) Incorporate zoning strategies to provide buffer areas between new residential developments and abutting agricultural areas.
- 6) Support P.A.116 farmland preservation agreements.
- 7) Explore and, where deemed viable, implement a Township-operated purchase of development rights (PDR) program that enables a farmer to realize the development value of the land while still maintaining the farmland in an open space/farm status.
- 8) Support regional efforts to establish a viable PDR program.
- 9) Communicate the needs of Montcalm Township and the regional area for state and federal cost sharing for PDR.
- 10) Explore and, where deemed viable, implement a viable farmland preservation program that enables the development potential of a farm parcel in an important farmland preservation area to be transferred (TDR) to a parcel in a designated growth area in the form of a density bonus.
- 11) Discourage the extension of municipal utilities (such as sewer and water) into designated agricultural areas unless such extensions are coordinated with a PDR and/or TDR program.

Residential Development

Residential development will be the major land use change in the coming ten to twenty years. The Township is a very attractive place to live for many prospective residents. It has abundant natural resources and open spaces, an overall rural character, close proximity to desirable urban services and retail centers, and regional access to near and distant employment centers. Principal limitations to new residential development are largely related to environmentally sensitive areas, the ability of area soils to accommodate septic drain fields, comparatively limited public services including the lack of public sewer, the ability of the Township to provide adequate public services to meet the demands of the increased residential development, and balancing residential growth with farmland resources protection interests.

Montcalm Township is characterized by rural residential lots as well as small-lot subdivisions, particularly in association with Turk, Fish, and Perch Lakes. Many of these subdivisions were established under previous health department regulations and would not likely be approved under today's standards. The Township is interested in providing reasonable opportunities for additional and varied housing opportunities and lifestyles. Rural residential lifestyles are available and will continue to be so. The lack of public sewer and water significantly limits the Township's ability to provide more affordable housing opportunities. However, the proximity of Greenville provides potential opportunities for more suburban and urban lifestyles due to the existing urban character of the community and the potential extension of public services into the Township. The Township also has the option to pursue an independent sewer system if deemed desirable and feasible. Public studies during the past 10 years have consistently documented that multiple family development, unlike low-density residential development, typically generates more municipal revenue than the cost to provide it with services.

The proper placement of residential development of a more urban character, including multiple family dwellings, is critical if such development is to have limited impact upon the character of existing residential areas, the community's dominant rural character, and the cost-effective delivery of public services.

A primary concern with regard to future housing is that it be situated in appropriate locations. Inappropriately located residential development can have the greatest negative impact on local farming operations. Residential encroachment into farmland areas is frequently associated with increased conflicts between farm and non-farm residents, increased land

assessments and property taxes, and increased farm acreage losses. These encourage the disinvestment in farming. However, farmland concerns should not be the sole consideration in the location of new residential development. Inappropriately located development can occur where development densities exceed the natural carrying capacity of the land, where public facilities are not adequate to handle increased demands, and where nearby development may reflect a very different character. Inappropriately located development can also occur where new residences are stripped along existing road frontages, including M-91.

Of equal concern is the efficiency in which the Township's land resources are utilized. Future residential development can be efficiently accommodated and need not consume unnecessary farmland acreage, other natural resources, and open spaces. The actual land area needed for future residential development is comparatively small. If Montcalm Township's population grows by 1,000 persons by 2020, approximately 500 acres of undeveloped land and/or farmland would require conversion to residential use to accommodate the additional 360 dwellings (based on an average lot size of 1.0 acres, provision of new roads, and a household size of 2.8 persons). As noted previously, the development of a single 80-acre parcel alone could potentially yield approximately 60 new dwellings and 170 new residents – accommodating approximately 15% of this anticipated growth on less than 1% of the Township land.

However, the same 360 dwellings can consume as much as 2,700 acres (approximately 12% of the Township) or more if located on large lots of five to ten acres or more in size. This less efficient development pattern can dramatically accelerate the rate at which farmland and other undeveloped lands are converted to residential use and undermine the long term economic viability of local farming operations. When large land splits occur throughout the community, one by one, the cumulative impact upon the Township's agricultural base can be devastating. It must also be recognized that small acreage zoning across the Township without any density limitations, such as one acre zoning, provides for a build-out population (the population resulting from all land being developed at an average density of 1 dwelling per acre, exclusive of wetlands and future road rights-of way) approaching 25,000 persons or more. Such a growth pattern will have dramatic effects on farming, community character, taxes, and public services demands.

RESIDENTIAL DEVELOPMENT GOAL: *Accommodate new residential development in a manner which recognizes the opportunities and constraints of the Township's public services, infrastructure, and natural features; preserves the overall rural character of the Township and its farmland resources, and accommodates a reasonable range of densities and lifestyles.*

Objectives:

- 1) Encourage the continued dominance of low density housing as the principal housing option.
- 2) While maintaining low density housing as the primary housing option, provide opportunities for alternative housing options to meet the varying housing preferences of current and future residents, including small lot single family dwellings and multiple family housing.
- 3) In addition to identifying areas in the Township that are more preferable for higher density residential development, identify the conditions that should exist to make such development feasible.
- 4) Consider the natural carrying capacity of the land when determining the appropriate density of development. Development densities should not undermine important environmental features.
- 5) Limit development densities in environmentally sensitive areas.
- 6) Discourage strip residential development along the frontage of existing state and county roads, to minimize traffic safety hazards and the "land-locking" of interior acreage.
- 7) Encourage innovative residential development which incorporates the preservation of natural resource systems and open spaces, and the preservation of the Township's rural character, in the site planning process. One such initiative, where multiple lots or dwelling units are created, should include the clustering of lots in one or more portions of the original parcel and placing the balance of the parcel in a permanent open space status.
- 8) Discourage commercial encroachment into established residential neighborhoods.

Commercial Development

Commercial development in Montcalm Township covers approximately 70 acres and consists of a mix of retail and service-based uses. Commercial development is primarily limited to the M-91 corridor. Several businesses are also located in Gowen and the Peck/Vining Roads intersection area. Addressing future commercial development requires consideration of need, location and character. In regard to "need," the community survey undertaken as part of the development of this Plan revealed that commercial expansion does not appear to be strongly

supported by the general public at this time. There are no universal land use ratio standards that identify the appropriate amount of commercial development for a particular community. Each community is unique, with its own set of circumstances including infrastructure, existing land use pattern, growth, and public perceptions. However, studies have been undertaken that also suggest the current level of commercial development is adequate.

Studies in the 1980s by the American Planning Association, focusing on both large and small cities, found that an average of approximately 8% of a community's developed land area was devoted to commercial use. Direct comparison of this figure to Montcalm Township is not realistic as the Township is far from an urbanized community. Still, it must be noted that Montcalm Township's current 70 acres of commercial development comprises approximately 5.3% of its total developed land area. A 1989 study by David Van Horn, focusing on four counties in Florida, California, and Tennessee (including rural areas), found that the average number of acres devoted to commercial use on a county-wide basis was 7.2 acres per 1,000 population (Urban Land, 1989). It is reasonable to expect that a significant lower ratio exists if all cities and villages are excluded. Montcalm Township's current 70 acres yields a ratio of 21.9 acres of commercial development per 1,000 population.

According to the 1985 Shopping Center Development Handbook, published by the Urban Land Institute, the Township's population of approximately 3,200 is considered generally adequate to support the smallest of the classifications of commercial centers – the *neighborhood* center. The neighborhood center is considered to require a base population of 3,000 – 4,000 persons and be approximately 5 – 10 acres in size.

These studies suggest that, based on land use and population ratios, the level of commercial development in Montcalm Township is adequate today and will continue to be adequate with an increase of approximately 1,000 persons by 2020. However, if the Township desires to more aggressively pursue the long-term economic stability of the community, some commercial expansion may be advantageous.

It must also be recognized that Montcalm Township residents have available to them the many retail, office, and other commercial services of the Greenville area. The commercial development in Greenville caters to both the day-to-day needs of area residents as well as providing opportunities for comparison shopping and professional services.

To the extent that viable opportunities are provided for commercial expansion, their location should be directly linked to access, visibility, activity areas, and improved levels of existing or anticipated public services. Locating future commercial development with recognition of these factors will improve its long term viability and minimize additional public costs. To this end, special attention should be directed toward segments of the M-91 corridor, the Greenville area, and existing and planned residential growth areas.

Commercial uses can vary significantly in character, ranging from retail to office, professional and other services, and ranging in size and scale from a small local hardware store to a large department store or multiplex movie theater. As commercial uses are of varying character, so are their impacts upon abutting land uses, the community as a whole, and neighboring municipalities. In light of public sentiment and the Township's limited public services, overall rural character, lack of a nearby highway interchange, and the Township's comparatively small population base, large scale commercial developments should generally be discouraged.

COMMERCIAL DEVELOPMENT GOAL: *Provide opportunities for the limited expansion of commercial development in a manner that supports the predominant rural character of the community, minimizes new public service costs, and protects the viability and desirability of the Township's residential areas.*

Objectives

- 1) Recognize the significance of key thoroughfares such as M-91, Sidney and Wise Roads as potential opportunities for the location of new commercial development.
- 2) Ensure new commercial development is in character and scale with surrounding land uses, considering such features as building size and height, architectural design, setbacks, signage, and open spaces.
- 3) Future commercial development should be clustered in appropriately identified locations rather than be permitted to indiscriminately encroach into residential and agricultural areas.
- 4) Encourage consolidated commercial centers rather than strip commercial development patterns.
- 5) Provide opportunities for a mix of commercial uses that predominantly target local day-to-day consumer needs and the M-91 traveler.
- 6) Establish landscaping and screening measures to insure commercial development is sensitive to the dominant rural character of the community and minimizes adverse impacts on the normal use and enjoyment of adjoining land.

- 7) Coordinate the intensity of commercial development with available public facilities and services.
- 8) Focus new commercial development toward existing commercial areas.
- 9) Encourage the use of shared driveways and service drives to collect traffic from multiple businesses and minimize curb cuts and traffic hazards along business corridors.
- 10) Encourage the renovation of commercial structures that are in disrepair, abandoned, or otherwise provide limited commercial value in their current design or condition.
- 11) Provide opportunities for home-based occupations within residential dwelling units under conditions which will support the residential character, appearance, and quality of life experienced by surrounding residential properties and neighborhoods.

Industrial Development

There are approximately seven industrial businesses in the Township. The majority are located along Vining Road near Peck Road and consist of storage facilities, metal fabricators and a trucking company. These facilities occupy the old Ore-Ida potato processing plant. The plant was abandoned in the late 1980's and is now part of the state's Renaissance Zone program. This economic development program provides state tax abatements to encourage, in part, the reuse of abandoned facilities. Other industrial uses include a potato packing facility at M-91 and Sidney Road, and a junk yard on M-91 south of Holland Lake Road. There are also several small extraction operations scattered throughout the Township.

Like future commercial development, effectively addressing future industrial development requires consideration of need, location and character. While APA-published studies (1983) found that an approximate average of 8% – 12% of the land in both large and small cities was devoted to industrial use, rural communities, particularly those without extensive public sewer and water, have more often exhibited land use ratios of less than 2%. Montcalm Township's current 100 acres of industrial development comprises approximately 7.7% of its total developed land area. According to Planning Design Criteria (DeChiara and Koppleman, 1969), a general guideline for the ratio of industrial acreage to a community's population is 12 acres of industrial land for each 1,000 population. Montcalm Township's current 100 acres yields a ratio of 31.5 acres of industrial development per 1,000 population. The approximately 1,000 additional persons that may be expected in the Township in 2020 will yield a ratio of 23.9 acres of industrial development per 1,000

population. These guidelines do not suggest the need for industrial expansion through 2020. Public sentiment also suggests that industrial expansion should not be a primary goal of the Township at this time. Still, expansion can improve the community's overall economic stability. It must also be recognized that the vast majority of existing industrial acreage is part of the old Ore-Ida potato processing plant, portions of which remain vacant and which may not be available to accommodate many potential industrial operations due to particular layout, infrastructure, or other operational needs.

While visibility is not an important factor in locating future industrial development, adequate infrastructure is a critical consideration. As the intensity of industrial development increases, so typically does its reliance on public infrastructure including water, sewer, and roads. Locating future industrial development in recognition of these factors will minimize additional public costs. Industrial development can vary from low to high-intensity, and its impacts upon adjoining and near-by land uses can similarly vary. As its intensity increases, greater distance from residential areas is favored. Existing conditions in the Township, including land use patterns, public services and infrastructure, and public sentiment, suggest any future industrial development be of a comparatively light character. Should public sewer be introduced into the Township, more intensive industrial operations may be reasonable. However, all industrial facilities should be designed to minimize negative impacts on nearby properties and the community as a whole, and recognize the dominant rural character of the area.

INDUSTRIAL DEVELOPMENT GOAL: *Provide opportunities for the limited expansion of industrial development in a manner that supports the predominant rural character of the community, is coordinated with public services levels, and minimizes new public services costs and impacts on nearby land uses.*

Objectives

- 1) Recognize the significance of key thoroughfares such as M-91 and Wise Road as potential opportunities for the location of new industrial development.
- 2) Ensure new industrial development is in character and scale with surrounding land uses, considering such features and building size and height, architectural design, setbacks, signage, and open spaces.

- 3) Future industrial development should be clustered in appropriately identified locations rather than be permitted to indiscriminately encroach into residential and agricultural areas.
- 4) Limit industrial uses to those which are predominately characterized by assembly activities and similar "light" operations that do not require added levels of public services or negatively impact surrounding land uses and the community as a whole.
- 5) Encourage industrial uses to locate within industrial parks, characterized by adequate open spaces, landscaping, and buffering.

Circulation

As new residential and non-residential land uses are introduced into the Township, demands upon the roadway network will increase. Even low density residential development can significantly increase local traffic levels. This increased traffic may lessen the level of service along some of the Township's roads, particularly gravel-surfaced roads. Conversely, it must be recognized that road improvements may attract new development which, in turn, will place additional demands on the roadway network. Increased traffic demands can be more effectively accommodated through adequate road maintenance and the coordination of road improvements with the planned future land use pattern and designated growth and development areas.

Opportunities are presented by the Township's improved thoroughfares and appropriate land use management can maximize their potential and minimize adverse impacts to other road segments. The extent to which higher density and intensity land uses, including commercial and industrial land uses, are in comparatively close proximity to these key thoroughfares will minimize future maintenance costs and traffic levels along the Township's other roads.

Left unchecked, the potential for increased commercial and residential strip development is high. This pattern of development can be destructive because: 1) the increased number of driveways directly accessing the county roads increases the level of congestion and safety hazards; 2) travel times are increased; and 3) the Township's rich rural panoramic views of woodlands, fields, and other open spaces, as experienced from the roads, may be reduced to images of driveways, cars, and garages. Improperly managed, thoroughfares have the potential to evolve into corridors of strip malls and homes, signage, and expansive parking areas and parking lighting. This development pattern will undermine the function of these corridors, encourage congestion and traffic hazards, and alter the essential perception of the dominant rural character of the community.

Providing bicycle and pedestrian access within and between communities has long been identified as an important goal in improving quality of life. The past 20 years have witnessed an unprecedented surge in interest in trail systems on the local, state, and federal level as their value gains greater understanding. These trails can limit the reliance on the automobile, improve the health of local residents, and improve the quality of leisure time.

CIRCULATION GOAL: Maintain a transportation network throughout the Township that encourages efficient and safe travel, consistent with the rural character of the community and coordinated with the planned future land use pattern.

Objectives

- 1) Identify priority road segments for systematic maintenance and improvement, based upon the planned future land use pattern and existing and projected traffic patterns.
- 2) Discourage high-traffic generating land uses and development patterns along the Township's secondary roads until the time when such roads have been improved to accommodate such development.
- 3) Pursue measures to minimize the potential for traffic congestion and safety hazards along adjacent roadways, including limitations on the number, size, and shape of new land divisions, the discouragement of "strip" development, and limitations on curb cuts.
- 4) Encourage future residential lot split patterns that maintain the integrity of the Township's roadway network and rural character.
- 5) Discourage road improvements that will increase growth and development pressures in areas of the Township not specified for such growth should be strongly discouraged.
- 6) Work in conjunction with the Montcalm County Road Commission to encourage the use of combined service drives to serve adjacent properties and the preservation of rural character along existing public road corridors.
- 7) Develop a land use management plan for the M-91 corridor that ensures its function as a safe and efficient state thoroughfare, and offers the highway traveler a pleasant driving experience.
- 8) Encourage the inclusion of pedestrian/bicycle paths in association with new subdivisions to facilitate safe and convenient non-motorized movement.
- 9) Encourage the linking of residential and commercial centers through pedestrian/bike paths.

Regional Coordination

Montcalm Township must recognize that it exists within a regional network of communities, none of which are islands unto themselves. Montcalm Township abuts the Townships of Pine, Douglas, Sidney, Eureka, and Spencer. The City of Greenville is within one-half mile of the Township's southern border. The Township and nearby municipalities can greatly benefit by cooperatively pursuing common goals in the areas of land use and public services. In terms of the Township's preservation goals, strategies administered and coordinated on a county or regional basis may provide more viable and effective opportunities for both landowners and the Township as a whole.

Planned land uses, public services and preservation efforts should take into consideration conditions in abutting communities. Nearly all land along the borders of Montcalm Township is planned for primarily residential or agricultural use. The only land zoned for commercial development is along M-19 in Eureka Township to the south. The balance of Eureka Township land along Montcalm Township's southern border is zoned for agricultural and residential use, with permitted residential densities of approximately one dwelling per one-half acre. Land to the west in Spencer Township is primarily zoned for residential development at densities of one dwelling per acre. Lands to the north and east in Pine and Sidney Townships are zoned for agriculture and residential development at very low densities, approximately one dwelling per 10 – 40 acres. Douglas Township abuts Montcalm Township for one-half mile along Dickerson Lake Road in Section 1 and provides for residential development at densities of approximately three dwellings per acre (Clifford Lake area). Land use planning efforts should seek to establish a land use pattern compatible with surrounding conditions provided the goals of the Township are not undermined.

REGIONAL COORDINATION GOAL: *Guide future development and public services in a manner that recognizes the position of Montcalm Township within the larger region, and the mutual impacts of all area planning initiatives.*

Objectives

- 1) Where practical, identify a planned future land use pattern that seeks to ensure compatibility among land uses along municipal borders.
- 2) Maintain a meaningful communication program with area municipalities and county agencies to discuss local and area-wide public facilities and services needs, land use conditions and trends, preservation goals and objectives, contemporary planning issues, and mutually beneficial strategies to address short and long-term needs.

Chapter Three

FUTURE LAND USE STRATEGY

Introduction

Montcalm Township's principal planning components are contained in the Master Plan's Future Land Use Strategy, as discussed in this chapter, and the Coordinated Public Services discussion in Chapter Four. The Future Land Use Strategy identifies the desired pattern of land use and development throughout the Township. Chapter Four presents guidelines regarding future infrastructure and public services improvements to help insure that future public services are coordinated with the planned future land use pattern, and the achievement of the Plan's goals and objectives.

The Future Land Use Strategy consists of policies regarding future land use and development in the Township. Implementation of these policies rests with the regulatory tools of the Township – most importantly the Montcalm Township Zoning Ordinance. The Montcalm Township Zoning Ordinance will be the primary implementation tool of this Master Plan, by appropriate changes in the provisions of the Ordinance. The Zoning Ordinance generally regulates the type, location, bulk, and intensity of land development throughout the Township. The Township may also adopt other supporting regulatory tools to further the implementation of the policies of this Plan.

The goals and objectives presented in Chapter Two are the foundation on which the Future Land Use Strategy is based. These include, in part, the desire to guide future development in a manner that insures land use patterns compatible with public facilities and services, the cost-effective use of tax dollars, and the preservation of natural resources, existing land use patterns, and rural character.

The Future Land Use Strategy is based upon an analysis of the Township's natural and cultural features such as community attitudes, existing roadway network, soil conditions, existing and nearby public infrastructure, and environmentally sensitive areas. Also considered were nearby conditions in neighboring municipalities. The opportunities and constraints presented by these characteristics were evaluated in the context of the goals and objectives in Chapter Two to arrive at a planned future land use pattern.

Land Use Areas

The Future land Use Strategy divides the Township into "areas" and identifies the predominant land use pattern planned for each. These land use areas collectively formulate the planned future land use pattern in the Township. These areas are divided as follows:

- Agricultural Area
- Rural Residential Area
- Suburban Residential Areas
- Commercial Areas
- Industrial Areas

It is not the intent of this Plan to identify the specific land uses that should be permitted in each of these Areas. This Plan makes broad-based recommendations regarding the dominant land use(s) to be accommodated in each of these Areas. Specific permitted land uses will be determined by the zoning provisions of the Township, 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 Township support for the continuation of such uses. Zoning regulations

should clarify this matter. The approximate borders of these Areas are illustrated in the Future Land Use Map at the end of this Chapter.

The approximate borders of these Areas are illustrated on the Future Land Use Map at the end of this chapter. The Future Land Use Map depicts the boundaries in more detail than the explanatory text of the chapter. The boundaries are described as approximate since the exact demarcation is best reserved for the Township's zoning regulations and the detailed review and analysis of zoning and development proposals. 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 as presented in this Plan have been considered carefully. Significant departures are strongly discouraged except for unique circumstances and where the public health, safety and welfare will not be undermined. It is also important to understand neither the Future Land Use Map 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.

Agricultural Area

The Agricultural Area includes the majority of land in the Township and nearly all lands currently farmed. The intent of the Agricultural Area is to encourage the preservation of farmland resources and the long-term viability of local farming.

The Agricultural Area recognizes that farming plays an important role in the history and character of Montcalm Township, contributes food and fiber to local and regional populations, encourages Township-wide economic stability, and is an important source of personal income. The Area encourages the continuation of all current farming operations as well as the introduction of new farming operations. All farming activities are encouraged provided that they meet Department of Agriculture requirements as *"generally accepted agricultural management practices."*

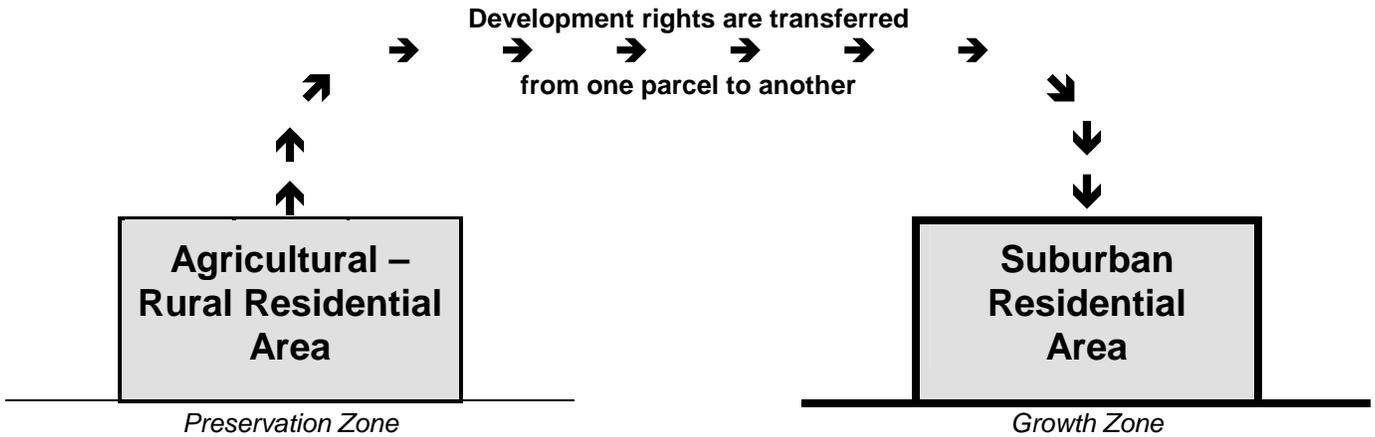
Lands in the Agricultural Area are largely characterized by conditions that support their long term agricultural economic viability including: 1) classification by the U.S. Department of Agriculture as *"prime farmland"*; 2) comparatively large parcel sizes; 3) limited encroachment by non-agricultural land uses; 4) enrollment in the P.A. 116 Farmland and Open Space Protection Program; and 5) adjacency to other farmland parcels considered to offer similar opportunities for long term economically viable farming. The Agricultural Area also includes substantial wetlands that support farm operations by assisting drainage.

Due to the heightened opportunities for long-term economically viable farming in this Area and the importance of farmland resources preservation, maximum development densities of approximately one dwelling per five acres or more is recommended in the Agricultural Area. However, these density limitations should not be interpreted to support a policy of large lot zoning (such as minimum five-acre lots sizes) as the only development option. Rather, the Plan supports a policy of flexibility in lot sizes. Further, the Plan supports the potential for higher development densities as a means to encourage development patterns that are more sensitive to the resource and rural character base of the community (see "Open Space Developments" on next page).

PDR and TDR Program: The lands within the Agricultural Area are uniquely qualified to be part of a more aggressive farmland preservation initiative, such as that which may include the voluntary purchase of development rights (PDR) and the transfer of development rights (TDR) programs. PDR programs enable a landowner to voluntarily sell the development rights to a governmental body in return for the placing of an easement on the land prohibiting future non-farm development. TDR programs enable a landowner to voluntarily sell the farm parcel's development rights to another parcel owner in an area planned for growth and development, under the management and authority of the Township. Both the sale and transfer of development rights provides landowners the opportunity to realize the development value of their land without having to actually develop it. Both result in the long-term preservation of farmland resources, open space, and rural character.

A PDR program in Montcalm Township should concentrate on preserving large contiguous blocks of farms and farmland. Similarly, a TDR program should focus on transferring development rights from the Agricultural Area to the Suburban Residential Area, that area of the Township identified as a residential growth zone (see "Suburban Residential Area" on page 3-5). This plan supports implementation of both PDR and TDR programs in Montcalm Township as tools to help preserve the farmland and rural character of the community.

Transfer of Development Rights (TDR)



This Plan proposes the establishment of a TDR program in Montcalm Township. The goal of the program is the long-term preservation of farmland resources and the local agricultural industry. Key objectives of the program are to include:

- 1) Limit residential encroachment into important Agricultural/Rural Residential Areas, identified as “preservation zones.”
- 2) Enable farmers to realize a portion or all of the development value of their land by establishing a mechanism to transfer/sell their development rights to landowners of parcels in designated “development zones.”
- 3) Allow the owners of land in the “development zones” the opportunity to develop such land with heightened densities to capture the investment of such rights.

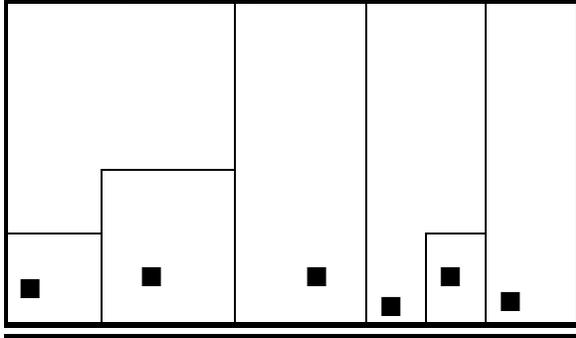
The Agricultural Area is not intended to serve as a residential growth zone. The Plan discourages the wide-spread encroachment of residential development in order to more effectively preserve important agricultural resources and the long-term farming environment. Potential new residents in the Agricultural Area should recognize that the traditional odors, noises, fertilizer applications, and generally recognized agricultural activities associated with responsible farming may well continue on a long term basis in this area. The Township does not consider such activities and operations as nuisances. Rather, the Township supports the long term continuation of farming in the Township. Local developers and real estate agents should disclose this information to prospective buyers of land in this Area.

Open Space Developments: To the extent that residential development is accommodated in the Agricultural Area, development patterns that incorporate the preservation of natural resources, open spaces, rural character, and traffic safety are strongly encouraged. To this end, the Agricultural Area supports opportunities for what is frequently referred to as “clustering” and/or “open space developments.” 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 for farming or otherwise reserved for open space and/or the preservation of important environmental resources. These open space areas can be reserved by the use of conservation easements, deed restrictions, or similar tools.

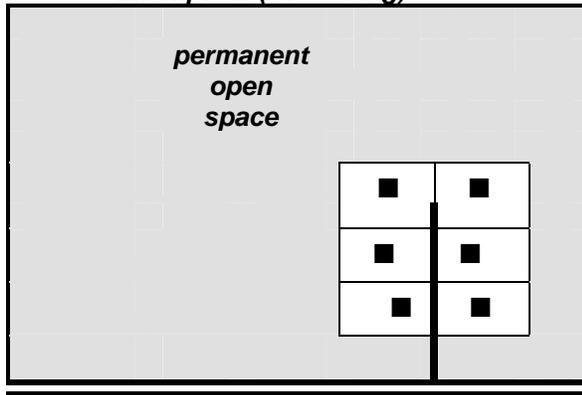
A critical component of clustering should be the inclusion of new interior roads to serve the new lots, rather than stripping the dwellings along existing road frontages such as M-91, Sidney Road, Colby Road, and the many other existing public roads.

More traditional strip residential development along the Township’s major roads is illustrated in Example A on the following page. This is the easiest form of development but it impacts public safety due to the many driveways directly accessing the road and can significantly undermine the rural character of the Township. Example B, illustrating the use of clustering, improves public safety along the road and more effectively preserves the existing character of the community.

Example A (Strip Development)



Example B (Clustering)



Existing Settlements: There are some existing small settlements in the Agricultural Area, including scattered subdivisions. The Plan recognizes the viability and desirability of these settlement areas, and that some may be of a higher density than recommended for this Area. On the other hand, these settlement areas are not to serve or be interpreted as future growth and expansion zones and for this reason, are not included in the Rural Residential or Suburban Residential Areas discussed on the following page. The Plan presents general policies. Specific zoning regulations, including zoning district boundaries and requirements, will address this issue.

Rural Residential Area

The Rural Residential Area is also intended to encourage the preservation of farmland resources and the long-term viability of local farming. However, a fundamental purpose of the Area is to also provide opportunities for low-density residential development that preserves the community's overall rural character, natural resources, and open spaces. The Rural Residential Area does not embody conditions that are as favorable to the long-term viability of farming as the Agricultural Area. The Rural Residential Area has a stronger rural residential theme than one of farmland preservation. However, the Rural Residential Area

encourages the continuation of all current farming activities as well as the introduction of new farming activities provided they meet Department of Agriculture requirements as "*generally accepted agricultural management practices.*"

Maximum development densities of approximately one dwelling per two to three acres are recommended in the Rural Residential Area. The presence of extensive wetlands or other sensitive environmental resources may suggest lower development densities in selected areas. Like the Agricultural Area, open space developments and other development forms that incorporate the preservation of natural resources, open spaces, rural character, and traffic safety are strongly encouraged. Such innovative development options should be rewarded and encouraged by the provision of heightened development densities.

Potential new residents in the Rural Residential Area should recognize that the traditional odors, noises, fertilizer applications, and generally recognized agricultural activities associated with responsible farming may well continue on a long term basis in this area.

There are some existing small settlements in the Rural Residential Area, including scattered subdivisions. The Plan recognizes the viability and desirability of these settlement areas, and that some may be of a higher density than recommended for the Rural Residential Area. On the other hand, these settlement areas are not to serve or be interpreted as future growth and expansion zones. For this reason, they are not included in the Suburban Residential Area discussed below. Again, the Plan presents general policies. Specific zoning regulations, including zoning district boundaries and requirements, will address this issue.

Suburban Residential Area

The Suburban Residential Area provides for residential development of a more suburban character than planned elsewhere in the Township. These Areas include existing residential development of a suburban character as well as vacant land where new residential development of similar character is considered appropriate. The Future Land Use Strategy identifies the following Suburban Residential Areas.

The Gowen Suburban Residential Area is intended to accommodate suburban development in the general vicinity of Gowen and further south. This area is characterized by numerous conditions that support its appropriateness for future suburban development including: 1) access via primary county roads, including primary road access to M-91; 2) Gowen has long been a settlement area and is characterized by

existing suburban residential development; and 3) this location is removed from the more actively farmed regions of the Township.

The Turk Lake Suburban Residential Area is intended to accommodate suburban development in the general vicinity of Turk Lake and further north. This area is also characterized by numerous conditions that support its appropriateness for future suburban development including: 1) the area is afforded excellent access by M-91; 2) the area already exhibits extensive suburban/urban residential development and includes the largest existing concentration of dwellings in the Township; 3) the Township Hall and park are centrally located within this area; 4) the fire department is centrally located within this area; and 5) the area is served by existing retail and convenience services.

Development densities of approximately one dwelling unit per acre are considered appropriate in the Suburban Residential Areas provided adequate potable water and on-site sewage disposal exists. The presence of extensive wetlands or other sensitive environmental resources may suggest lower development densities in selected areas. Densities in excess of approximately one dwelling per acre are considered reasonable in association with public sewer and development under a TDR program, as described under “Transfer of Development Rights Program” on the previous page.

Development densities approaching three or more dwellings per acre may be reasonable in the Suburban Residential Areas following the transfer of development rights but only after special review proceedings to determine if the project is appropriate on the proposed property. Factors such as available infrastructure and public services, the surrounding land use pattern, and the specific characteristics of the property should be considered.

However, manufactured housing communities and similar high-density developments should be restricted to Sections 31 and 32 in the Gowen Suburban Residential Area. Of the vacant land available in the Suburban Residential areas, this area reflects some of the flatter and drier terrain. It is closer to the Greenville and Grand Rapids metropolitan areas, the principal employment centers in the region, and is afforded convenient access to M-91, and M-57. Johnson and Wise Roads provide access to this immediate area and these roads are classified as “primary” roads. The sensitive environmental character of the Turk Lake area does not support a policy of high density development in the Turk Lake Suburban Residential Area.

Further, any development involving high-densities (such as four or more dwellings per acre) should be of such size, or phasing, to ensure that the desired character of the community is preserved and public health, safety and welfare can be maintained.

The Suburban Residential Area can provide opportunities for the effective preservation of farmland resources through the transfer of development rights from parcels in the Agricultural Area to parcels in the Suburban Residential Area.

Commercial Areas

The Future Land Use Strategy identifies particular locations where commercial development is considered appropriate. Commercial centers typically require a heightened level of road infrastructure, access, public services and visibility. These factors directly impact the identification of future commercial areas in the Township. Other concerns include minimizing conflicts between existing and proposed land uses and the encouragement compact development. However, no development should occur unless adequate measures are provided for on-site sewage disposal and potable water.

Five principal locations are identified for the accommodation of commercial development. The Turk Lake Commercial Area is established in recognition of the existing commercial development along M-91 in the area of Turk Lake and the Plan’s support for its continued stability. This location has excellent access and visibility by M-91 and can provide convenience services to, and be supported by, the planned residential development in the surrounding area.

The Gowen Commercial Area is established in recognition of the planned suburban development in this portion of the Township and its interest in providing opportunities for conveniently located commercial services to future residents as well as travelers along Sidney Road. Sidney road is a primary thoroughfare across the County and provides good access and visibility. Commercial development should be compact and not extend more than approximately one-half mile along Sidney Road.

The M-91/Sidney Road Intersection is the principal intersection of the Township, providing excellent access and visibility. The intersection is centrally located within the Township and could address consumer needs of the Gowen and Turk Lake development areas as well as the Township as a whole. Commercial development should be compact and not extend more than approximately one-quarter mile from the intersection. Special care should be exercised during the design and development of this intersection area to ensure appropriate traffic safety measures including the proper location and spacing of access drives and, where traffic levels dictate, acceleration and deceleration lanes.

The M-91/Holland Lake Road Corridor extends along M-91 south of Holland Lake Road for an approximate distance of one-half mile. It is established in recognition of the several businesses already in existence along the west side of the highway, and the resulting lesser viability of residential development on the opposing east side.

The M-91/Peck Road Corridor extends along M-91 from the Township's southern border (Wise Road) to the south side of Peck Road. This area is afforded excellent access and visibility and is within one-half mile of Greenville, a highly urbanized community characterized by considerable commercial services. This is the single area of the Township to which public sewer is most apt to be extended from outside of the community. Commercial development is already apparent along the east side of M-91, and it will likely lessen the viability of residential development on the opposing west side. Commercial development is also planned along M-91 just south in Eureka Township.

All of the planned commercial areas are to be compact and limited to the geographic boundaries referenced above. Commercial development should be of a character and design that encourages compatibility with adjacent and nearby land uses and the desired rural character of the area. New commercial uses that are adjacent to residential property should be permitted only when adequate buffer yards and screening are provided to minimize negative impacts. Limitations on signage, building heights, size, bulk, and related architectural qualities should insure compatibility of new land uses with the desired character of the surrounding areas and the Township as a whole. Special attention should also be directed to insuring future commercial development does not undermine public health, safety or welfare due to poor road access practices including excessive curb cuts and conflicting turning patterns.

Industrial Areas

Industrial centers typically require a heightened level of road infrastructure, access, and public services. These factors directly impact the identification of future industrial areas in the Township along with other concerns including minimizing conflicts between existing and proposed land uses and encouraging compact development. No industrial development should occur, or new industrial uses introduced, unless adequate measures are provided for on-site sewage disposal and potable water.

The Future Land Use Strategy identifies a single area for the accommodation of industrial development. The Peck Road Industrial Area extends between Peck Road and the Township's southern border, from the west side of Vining Road eastward for a distance of approximately one mile. This area has long served as the Township's planned industrial center. The Area includes the former Ore-Ida facility which, since its closing, has come to house other industrial operations. The Area is afforded good access from M-91, Peck Road and Vining Road, and is provided with rail access as well. This portion of the Township is characterized predominantly by farmland and open space, lessening potential conflicts with residences. Though currently not in operation, sewer infrastructure to this area from Greenville exists today.

Future industrial development should be characterized by design and operational features that minimize negative impacts upon the environment, nearby properties and the Township as a whole. Site development practices that are sensitive to the Township's rural character and adjacent land uses should be encouraged. Reasonable limitations on signage, building heights, size, and related architectural qualities should assure compatibility. Industrial uses that have minimal external impacts are strongly encouraged. These may include service-oriented industries such as communication and information technologies and manufacturing operations that focus on the assembly of pre-made parts versus raw materials operations.

Conservation of Natural Resources

Montcalm Township is characterized by conditions that require a strong conservation theme. These conditions include approximately 4,000 acres of wetlands, 3,000 acres of woodlands, and important drainage corridors such as the Flat River and Dickerson Creek.

In addition to presenting severe limitations to development, 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 passive recreation and contribute to the Township's overall rural character.

In light of the critical roles these resources play and the limitations they present to development, the Plan strongly supports the preservation of these resources. Preservation should take precedence over the unnecessary disturbance and/or destruction of these resources by residential, commercial, or industrial development. The presence of such resources in areas designated for residential, commercial or industrial development should be recognized in the deliberation of rezoning, site plan, and similar zoning requests. Land uses requiring state and/or federal permits (especially for wetland or floodplain alterations) should not receive final Township approval until satisfactory evidence has been submitted verifying the acquisition of all necessary permits. Where a portion of a parcel contains environmentally sensitive areas, development should be directed elsewhere on the site.

Chapter Four

PUBLIC SERVICES

STRATEGY

Introduction

Chapter Three described the planned pattern of land use throughout the Township. Since the character and feasibility of land use and development is directly influenced by the extent to which public services are available, special attention should be directed to the manner in which public service improvements occur. For example, affordable housing opportunities are significantly lessened in the absence of public sewer. The extent of public services also impacts the perceived quality of life within a community. For example, response times by a local fire department and the availability of recreation opportunities effects the quality of life experienced by local residents.

An important principle of the Future Land Use Strategy is that no new development should occur in the Township unless public services are adequate to meet the needs of that new development.

Similarly, public service improvements, and the increased development that may result from such improvements, should not jeopardize the Township's interest 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

Issues: As new residential and non-residential land uses are introduced in the Township, demands upon the road network will increase. The additional residential development anticipated in this Plan, despite its overall low density, will result in higher traffic levels. This increased traffic may lessen the level of service along some of the Township's roads. Conversely, it must be recognized that road improvements may well attract new development which, in turn, will place additional demands on the road network. The Public Services Strategy seeks to assure that the township's roads are adequately maintained, and improvements are coordinated with the planned future land use pattern and the designated growth and development areas.

The Township's roadway infrastructure currently fulfills its function fairly well. This is due, in large part, to the existing low development density throughout most of the township, the paved status of important thoroughfares, and the presence of M-91. However, the Township's gravel roads can be expected to witness growing traffic demands that may increase the need or desire for paving. Such improvements may then attract additional development. M-91 can also be expected to absorb increased traffic demands and is already planned for widening. Even with its widening, traffic flow and safety along the highway can be seriously undermined by inappropriately located driveways and excessive numbers of access points to the highway.

As the community grows, increased interest in non-vehicular circulation can be expected to surface. Opportunities for safe pedestrian and non-motorized trails and linkages can afford recreation opportunities as well as lessen reliance on vehicular use.

Policies:

- 1) Greatest priority for road improvements will be assigned to those road segments whose current conditions present imminent danger to the public health and safety. Such dangerous conditions include roadway impasses and flooding.
- 2) Functional classification of roads will dictate the priority of improvements when all other conditions are generally equal. The functional importance of the roads in the Township, from highest to lowest, is as follows: 1) county primary roads, particularly those segments servicing the Future Land Use Strategy’s Suburban Residential Areas; 2) county local roads, particularly those segments servicing the Suburban Residential Areas, but excluding roads in a platted subdivision or similar neighborhood developments; and 3) minor roads, such as local neighborhood roads in platted subdivisions.
- 3) The paving of public gravel roads will generally be discouraged except where: a) the cost to maintain such roads does not justify their long-term gravel status; or b) such roads are located in planned Suburban Residential Areas.
- 4) No new roads or road extensions should be undertaken at this time, nor should any be taken in the future except upon a clear finding of need to assure public safety and welfare or to provide access to lots in new neighborhoods and similar new land development.
- 5) All future roads will be designed and constructed to Montcalm County Road Commission standards except upon a finding that, in specific instances, such standards do not justify the impact on the natural environment and rural character of the community or are otherwise unnecessary, and lesser standards will not undermine public safety and welfare.
- 6) All proposed future road construction will be evaluated carefully for local and regional impacts on traffic flow, congestion, and public safety. New road construction should be coordinated with other local and regional road improvements to address traffic movement in a unified and comprehensive manner.
- 7) The Township will develop a non-motorized circulation plan to encourage the provision of trails and linkages between neighborhoods and activity centers in the community. Such a plan should address the provision of trails in association with new residential developments.

Sewage Disposal and Potable Water

Issues: There is no public sewer or water service in Montcalm Township. Residents rely upon private wells and septic systems for potable water and sewage disposal. Improperly operating septic systems can contaminate potable groundwater resources, lakes and streams. This poses a public health threat. As land development densities increase, so does the need for public sewer and water. Industrial, commercial, and higher density residential land uses generally have greater sewage disposal and potable water needs than can often be met by traditional on-site facilities. Failure to provide adequate sewer and water facilities to these land uses can lead to severe health and environmental problems, while the premature provision of these services can lead to accelerated and unmanaged growth and development. Many of the township soils present severe limitations to on-site sewage disposal. This condition highlights the critical relationship between land use, development intensities, and on-site sewage disposal and potable water.

The Public Services Strategy does not suggest public water or expanded public sewer is necessary in the near future. However, the viability of an effective affordable housing program and a transfer of development rights program significantly increase where public sewer is available.

Policies:

- 1) All on-site sewage disposal and potable water facilities will be constructed and maintained in accordance with the requirements and standards of the Montcalm County Public Health Department, Michigan Public Health Department, and other applicable local, county, state or federal agencies.
- 2) If public sewer and water services are not available, no new land uses or land development projects will be permitted unless regulations regarding on-site sewage disposal and potable water facilities are fully complied with.
- 3) Any future decision by the Township to provide public sewer and/or water services is to be based on an in-depth analysis of all available options, including services provided through cooperative agreements with neighboring municipalities.
- 4) Any public sewer and water services introduced or expanded in the Township will be in response to a public health threat and/or to facilitate compact development opportunities in the planned Suburban Residential Areas.

- 5) Any future introduction or expansion of a public sewer and/or water service area, and associated infrastructure, should occur in a phased and incremental manner so that an overly large geographic area will not be intensely developed at a rate beyond the Township's ability to effectively manage the rate of growth and development and ensure the public health, safety and welfare.

Storm Water Management

As buildings, parking lots and other impermeable surfaces associated with new development cover more of the Township's land surface, the quantity of storm water runoff increases. The vegetated landscape that previously absorbed and slowed much of the water associated with storms is replaced by urban surfaces. Unless specific preventive measures are taken, this condition encourages flooding, soil erosion, sedimentation and pollution of area water resources. The Township's water resources, including the Flat River, Dickerson Creek, and its abundant wetlands, are vulnerable to degradation. 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 communities in the same watershed. 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.

Attention should also be directed to ensuring adequate drainage of farmlands. Storm water management need not be limited to an urban development issue only. While urban development can pose increased flooding potential in association with urban and agricultural areas, improper maintenance of county drains, and roadside ditches, and filling of wetlands, can also increase flood potential.

Policies:

- 1) Increased quantities of runoff which occur as a result of property development will be detained on site, if necessary, to avoid placing excess demand on the capacity of the storm water system into which the runoff would otherwise be discharged.
- 2) Proposed land uses will not be permitted if the level of service currently provided by existing storm water management infrastructure and/or existing drainage patterns will be decreased, unless necessary improvements to such in-

frastructure or natural drainage courses are first made.

- 3) New and existing land uses will comply with all county, state, and federal regulations regarding storm water management and soil erosion, including the regulations of the Montcalm County Drain Commissioner, except where local officials determine less stringent standards in site-specific instances are appropriate and will not undermine the public health, safety and welfare.
- 4) Land development proposals that discharge runoff into the Flat River, Dickerson Creek, other drainage courses and wetland corridors will be reviewed to assure such discharge practices do not undermine the environmental integrity of such resources.

Police and Fire Protection Services

As community growth and land development increases, so does the demand for emergency services. It is important that the Township insure that adequate fire and police protection services are available to existing and future residents and property.

Commonly referenced standards regarding fire protection suggest a maximum service radius from a fire station in low density residential areas of approximately 3 miles, and approximately 3/4 to 2 mile service radius in commercial, industrial, and high density residential areas. There are portions of the Township that are not within these recommended ranges, although mutual aid agreements with surrounding municipalities limit these deficiencies. Commonly accepted standards for police protection levels do not exist and are frequently measured as a function of public satisfaction.

To prevent emergency services deficiencies, the Township should continually monitor police and fire protection needs and service, and explore improving service levels. Considerations for improved services should include the expansion of joint services with neighboring municipalities, and the establishment of additional fire and police stations as service levels dictate.

Policies:

- 1) The Township will require the provision of fire protection infrastructure (wells, water lines, etc.) for all new developments which are of such size and density that on-site infrastructure is considered critical. On-site fire protection infrastructure will generally be considered necessary for residential developments that

concentrate building sites on lots of approximately one-half to three-quarters of an acre or smaller.

- 2) The Township will continually monitor police and fire protection needs and service to prevent emergency services deficiencies, and explore improving service levels. Considerations for expansion of services will include the expansion of joint services with neighboring municipalities.

Recreation

Montcalm Township officials recognize that the well being of its residents is affected by the availability of recreation opportunities. The Township further recognizes that the type and availability of nearby recreation facilities are important. Demands for recreation opportunities increase with population growth. Available land for recreational purposes decreases as housing and other land uses consume more of what was open space and potential outdoor recreation land. Recreation lands must be purposefully set aside and appropriately located within the community.

Montcalm Township operates a single recreation site, comprised of the Township Hall property. Park facilities include a tennis court, basketball courts, baseball field, picnic shelter, playground, and nature trails. Township residents also have access to the numerous recreational facilities and services of other public bodies including the school facilities and programs of the local school districts, the parks and recreation programs of nearby municipalities including Greenville, as well as regional facilities operated by Montcalm County and the state, including the Flat River State Game Area.

The extent to which residents are satisfied with the current recreation opportunities in and around the Township is not clearly understood at this time. A comprehensive survey of resident attitudes specifically addressing recreation issues in the Township has not been undertaken recently.

Policies:

- 1) The Township will periodically monitor the extent to which area residents are satisfied with recreation opportunities in the Township by the use of surveys, public meetings, and/or interviews.
- 2) Should sufficient public sentiment warrant, the township will pursue the development of a MDNR-approved five year action plan which will provide a specific action plan aimed at providing needed Township facilities and enable the Township to compete for state and federal recreation grants.
- 3) The township will strive to provide recreation facilities in a manner that recognizes the particular recreation needs expressed by its residents.
- 4) The township will adopt incentives to encourage the provision of open space and recreation areas within future development projects.

Chapter Five

IMPLEMENTATION STRATEGIES

Introduction

This Master Plan establishes a strategy for growth, development and preservation in Montcalm Township. The Plan is comprised of graphic and narrative policies intended to function as benchmarks and to provide basic guidelines for making reasonable, realistic community development 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 local officials, by those making private sector developments, and by all Township residents interested in the future development of their community. The Plan itself is a policy document. As a policy document, the Plan's effectiveness is directly tied to the implementation of the Plan's policies through specific tools and actions, including regulatory controls.

The completion of the Plan is one part of the planning process. Realization, or implementation of the goals, objectives and recommendations 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.

Implementation of the Plan may be realized by actively:

- 1) Ensuring community-wide knowledge, understanding, support, and approval of the Plan.
- 2) Regulating the use and manner of development of property through up-to-date reasonable zoning controls, subdivision regulations, and building and housing codes.
- 3) Providing a program of capital improvements and adequate, economical public services by using available governmental financing

techniques to encourage desired land development and redevelopment.

The purpose of this Chapter is to identify implementation tools and where applicable, specific actions to be pursued.

Public Support

Citizen participation and understanding of the general planning process and the specific goals, objectives and policies of the Plan are critical to the success of the Township's planning program. The lack of citizen understanding and support could have serious implications for the eventual implementation of planning proposals. Failure of the public to back needed bond issues and continuing dissatisfaction with taxation, special assessment, zoning decisions, and development proposals are some of the results of public misunderstanding and rejection of long-range plans.

In order to organize public support most effectively, the Township must emphasize the necessity of, and reasons for, instituting the planning program and must encourage citizen participation in the on-going planning efforts of the community.

Specific actions to be undertaken to encourage public understanding and support of the Township's planning program are as follows:

- 1) Ensure that copies of the Master Plan are readily available for viewing at the Township Hall.
- 2) Post the Future Land Use Map of the Plan in the Township Hall where it is clearly visible.
- 3) Maintain a posting at the Township Hall that identifies proposed developments and land use decisions under consideration, and where

individuals may acquire additional information on such matters.

- 4) Maintain the Township web site so as to provide residents access to the Master Plan and current events pertaining to planning and zoning matters.

Land Development Codes

Zoning Ordinance

A zoning ordinance is the primary tool for implementing a Master Plan. Zoning regulations for townships are adopted under the authority of the Township Zoning Act, P.A. 184 of 1943, as amended. 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...”*. A zoning ordinance regulates the use of land. A zoning ordinance generally divides a community into Districts and identifies those land uses permitted in the District. Each District prescribes minimum standards that must be met such as minimum lot area, lot width, and building setbacks.

An important zoning tool regarding authorized uses in each district is the differentiation between “uses permitted by right” and “special land uses”:

Uses Permitted by Right: Uses permitted by right are the primary uses and structures specified for which a particular District has been established. An example may be a dwelling in a residential district.

Special Land Uses: Special land uses are uses and structures which have been generally accepted as reasonably compatible with the primary uses and structures within a district, but could present potential injurious effects upon the primary uses and structures within the district or are otherwise unique in character, and therefore require special consideration in relation to the welfare of adjacent properties and to the Township as a whole. An example may be a cemetery in a residential district.

Special land uses require a heightened level of scrutiny in their review and officials are afforded greater discretion in determining whether a particular special land use is appropriate on a particular site.

Another important tool is the requirement for the submittal of a site plan illustrating proposed alterations and improvements to a parcel. Such a plan assists local officials to determine if the

development complies with all standards of the Zoning Ordinance and is designed to encourage compatibility with surrounding land uses.

Adoption of zoning regulations by the Township Board provides the legal basis for enforcement of zoning provisions. The ultimate effectiveness of the various ordinance requirements, however, is dependent upon 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. The Township Planning Commission, Township Board, and Township staff are responsible for carrying out zoning/development related functions including the review of development plans and site inspections, community/developer liaison, and other functions. Each of these functions can require a substantial investment of time. Adequate staff levels and/or consulting assistance to ensure that these essential day-to-day functions are met is important in ensuring appropriate development.

The Township adopted zoning regulations many years ago and has periodically updated its zoning provisions to address changing conditions and policies in the Township. With the adoption of this Master Plan, the Township’s zoning ordinance should again be reviewed to identify any amendments that may be beneficial to implement the policies of the Plan.

The Township’s current zoning regulations should be evaluated and, where applicable, updated to address the following minimum areas:

- 1) Appropriate schedule of Districts to implement the Plan’s policies, including clear purpose statements for each District.
- 2) Appropriate delineation of authorized uses in each District, including those authorized as “uses permitted by right” and as “special land uses.”
- 3) Appropriate site development standards of each District to ensure the purpose of the District is implemented.
- 4) Appropriate site plan and special land use review procedures including sufficiency of information required to make sound decisions, comprehensiveness of approval standards, and clarity of procedures.
- 5) Appropriate site development standards addressing signage, landscaping/screening, outdoor lighting, environmental protection, access management along thoroughfares, and off-street parking, and other matters, to improve public health, safety and welfare; encourage preservation of the Township’s character and environmental integrity; and minimize conflicts between land uses.

- 6) Appropriate provisions addressing special environmental issues including waterfront development, lake management, and keyholing.
- 7) Clear provisions addressing all administrative and enforcement matters to ensure consistency in the application of the Zoning Ordinance.
- 8) Inclusion of a Transfer of Development Rights program as described in Chapter Three. Implementation of the program through the Township's zoning regulations is to be facilitated through "planned unit development" legislation of the Township Zoning Act (Section 16c of PA 184 of 1943, as amended). The mechanics of the program are to be generally based upon the following. Specific zoning and/or other regulations will clarify the procedures and requirements of the TDR program.
 - a) The TDR program will involve a "preservation zone" where farmland preservation is considered of highest priority, and a "development zone" where suburban and urban residential development densities are considered most appropriate due to, in part, improved levels of public services and infrastructure, and the presence of increased development levels. The preservation zone is to generally coincide with this Plan's Agricultural/Rural Residential Area and the "development zone" is to generally coincide with this Plan's Suburban Residential Area.
 - b) A landowner can voluntarily apply for acceptance of land into a designated "Agricultural Security Area" (or similarly named Area) within the Agricultural/Rural Residential Area. The Agricultural Security Area is to be a component of the TDR program and acceptance of a parcel(s) into the Agricultural Security Area is one of the initial steps of the TDR program.
 - c) Upon acceptance of a parcel(s) into an Agricultural Security Area, and thereby becoming eligible for the TDR program, the authorized development density of the Agricultural Security Area parcel would be reduced in recognition of:
 - 1. The landowner's interest and commitment to long-term farmland preservation and the long-term use of the land as farmland;
 - 2. The difference between the development value and agricultural value of the parcel.
 - d) Through the TDR program, and under the management and authorization of the Township, the landowner of an Agricultural Security Area parcel could transfer the parcel's development rights to land in the Suburban Residential Area.
 - e) A parcel in the Suburban Residential Area that receives the transferred development rights from the Agricultural Security Area would then be authorized to be developed at a higher density than otherwise authorized. The extent to which the development parcel could be developed at a higher density would be based upon a number of factors including the number of development rights available for transfer, available infrastructure and public services, the surrounding land use pattern, and the specific characteristics of the development property. The landowner in the development zone that is to receive the transferred development rights is to have knowledge of the approximate density bonus to be authorized on the development parcel prior to finalizing such a transfer.
 - f) A conservation easement or similar legally binding tool will then be placed on the parcel in the Agricultural Security Area from where the development rights were transferred, limiting future use of the Agricultural Security Area parcel to agricultural or similar open space use.

Subdivision Ordinance

When a developer proposes to subdivide land, the developer is, in effect, planning a portion of the Township. 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, P.A. 288 of 1967, as amended, provides the authority for municipalities to adopt local ordinances to administer the provisions of the land Division Act.

With the implementation of a subdivision ordinance, there is added assurance 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.

Montcalm Township does not currently have a subdivision ordinance and should consider the adoption of such regulations.

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. These general law ordinances can address, but are not limited to, noise, blight, weed control and special assessment districts. The Township should evaluate its current special purpose ordinances and determine what new ordinances should be adopted, and/or amendments made to current ordinances, to further implement the Master Plan.

Capital Improvements Programming

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 acknowledge current and anticipated demands, and recognize 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. The CIP outlines the projects that will replace or improve existing facilities, or that will be necessary to serve current and projected land use development within a community.

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 orderly programming of public improvements is to be accomplished in conjunction with the Master Plan. The use of capital improvements programming can be an effective tool for implementing the Master Plan.

Appendix A

CULTURAL FEATURES

Regional Context

Montcalm Township is located in the southwest region of Montcalm County in the central region of Michigan's Lower Peninsula. Principal surrounding townships are Pine and Douglas to the north, Sidney to the east, Eureka to the south, and Spencer to the west in Kent County. The City of Greenville, with a population of approximately 7,900, occupies portions of the congressional boundaries of Eureka Township and is within one-half mile of Montcalm Township's southern border. The nearest major regional urban center is Grand Rapids, 25 miles southwest, with a population of approximately 185,000. Approximate distances between Montcalm Township and some other major regional urban centers are: 1) Kalamazoo, 60 miles south; 2) Lansing, 50 miles southeast; 3) Detroit, 115 miles southeast; and 4) Midland/Saginaw/Bay City, 70 miles east. Aside from Greenville, the landscape of the surrounding communities is dominated by agriculture and scattered residential development.

Access and Circulation

Regional Access

Regional access to Montcalm Township is provided by M-57 and M-91. M-91 travels north-south through the center of the Township, connecting with M-46 to the north and M-57 to the south. M-57 travels east-west across the state linking the Grand Rapids and Flint areas. M-57 travels through the City of Greenville and is within two miles of the Township's southern border. M-57 and M-91 intersect in Greenville. U.S. 131 is 15 miles to the west, accessible from M-57. Interstate 96 (I-96) is 25 miles to the south and requires travel along M-57 and M-66 to reach the highway.

Local Roadway Network

Montcalm Township's local roadway network does not exhibit the dominant and typical square-mile grid pattern characteristic of the majority of townships in southern Michigan (see "Roads" map). The Township's many lakes and streams and abundant wetlands interfered with the development of a square-mile grid network. Aside from some private roads (recorded as private easements) and M-91, all roads are under the jurisdiction of the Montcalm County Road Commission (MCRC).

In compliance with the requirements of Michigan Act 51 of 1951, the MCRC 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. The classification of roads by the MCRC has important financial implications with regard to maintenance and improvements. Under Michigan law, townships have no responsibility for funding road improvements and maintenance. On the other hand, while the MCRC must maintain and improve primary roads at their own expense, 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 by the MCRC frequently require local funding. In reality, there are very few counties in Michigan where local townships are not actively involved in funding road improvements. The MCRC is responsible for local road maintenance. The MCRC has no major road improvements planned at this time in Montcalm Township.

Roads in the Township which the MCRC classifies as “primary” are limited to:

- Dickerson Lake Rd., between M-91 and Lake Rd.
- Johnson Rd., between Dickerson Lake and Wise Rds.
- Peck Rd., between M-91 and Vining Rd.
- Sidney Rd.
- Wise Rd.
- Vining Rd., south of Peck Rd.

All other roads in the Township under the jurisdiction of the MCRC are classified as “local.” Approximately half of the “local” roads are of a gravel surface.

Also of importance is the functional classification of township roads as established by the Federal Highway Administration (FHA). The FHA classifies road segments according to their function – the extent to which the road is intended to facilitate traffic movement over long distances versus access to abutting property. The relative hierarchy of the classification and its applicability to Montcalm Township follows.

Interstates, Freeways and Other Principal Arterials are thoroughfares intended to move large volumes of traffic over long distances. Facilitating circulation on a regional level, including between cities and states, is the primary role of these thoroughfares. There are no *interstates, freeways or other principal arterials* in Montcalm Township. The nearest road in Montcalm County within these classifications is M-46 to the north, classified as an *other principal arterial*.

Minor Arterial/Major Collector roads serve to both accommodate through traffic while also providing access to abutting properties and minor intersecting streets.

Minor Arterials: M-91

Major Collectors: Dickerson Lake Rd., between M-91 and Lake Rd.; Johnson Rd.; Wise Rd., between Johnson Rd. and M-91; Sidney Rd.; Vining Rd.; and Peck Rd., between M-91 and Vining Rd.

Minor Collector roads serve to collect traffic from local streets and to provide a means of access to local destinations and minor arterial/major collector roads.

Minor Collectors: There are no minor collectors in Montcalm Township.

Local Streets serve primarily to provide access to adjacent properties and minor collectors.

Local Streets: The balance of the roads in the Township not otherwise identified above are classified as *local streets*.

Federal aid for road projects is limited to roads classified as major collectors or higher. Roads classified as minor collectors have limited eligibility only. Roads classified as local streets are not eligible for federal funding.

The MCRC records 24-hour traffic counts throughout the County along primary roads. Following are the counts recorded during the past five years.

| | |
|----------------------------------|--------------|
| <u>Dickerson Lake Road</u> , at: | |
| E. of M-91 | 2,239 (1998) |
| <u>Johnson Road</u> , at: | |
| N. of Wise Rd. | 1,900 (2002) |
| N. of Kickland Rd. | 484 (1997) |
| at Flat River | |
| S. of Sidney Rd. | 1,037 (2001) |
| N. of Sidney Rd. | 2,040 (2001) |
| N. of Colby Rd. | 1,586 (2001) |
| S. of Dickerson Lake Road | 1,352 (2001) |
| <u>Peck Road</u> , at: | |
| E. of M-91 | 2,365 (1996) |
| <u>Sidney Road</u> , at: | |
| E. of M-91 | 4,007 (1998) |
| W. of M-91 | 3,743 (1998) |
| Flat River Bridge | 4,186 (1997) |
| E. of W. Co. Line Rd. | 3,811 (1998) |
| <u>Vining Road</u> , at: | |
| S. of Peck Rd. | 1,170 (1996) |
| <u>Wise Road</u> , at: | |
| W. of M-91 | 2,986 (1998) |
| Flat River | 2,522 (1997) |
| E. of Youngman Rd. | 2,587 (1998) |
| E. of Johnson Rd. | 3,308 (1998) |

A review of the counts show Wise and Sidney Roads are the most heavily traveled thoroughfares other than M-91. Traffic counts along M-91 in Montcalm Township range from approximately 10,000 – 15,000, increasing in the vicinity of Greenville.

There are a multitude of factors that impact the capacity of roads and their ability to assure efficient and safe travel. These factors include, but are not limited to, road alignment, frequency of driveways and other curb cuts, road side development, driveway turning patterns, and traffic controls (lights, signs, etc.). It is not uncommon for a two-lane rural road to be capable of accommodating between 9,000 – 15,000 trips per day without the need for additional lanes. A major factor contributing to the need for additional lanes is the extent to which road side

development encourages left-turn vehicle movements.

their properties to gain property tax relief, provided the farmland is maintained in agricultural/open space use. There were approximately 3,000 acres, or 13% of the Township’s area, enrolled in the Farmland and Open Space Preservation Program in 2002. The vast majority of the PA 116 land is located in the east half of the Township. Those Sections in which 200 or more acres is enrolled in the program are 11, 25, 26, and 27.

Land Use & Development

Montcalm Township has a varied landscape. Most of the Township’s landscape is dominated by farm operations and scattered residences. However, the M-91 corridor is characterized by considerable commercial development and Gowen is home to several additional businesses. In addition to the scattered residences located among the Township’s farm and other open space areas, including woodlands and wetlands, are several lake residential development centers. Approximately 5.5% of the Township area has been developed for residential, commercial, industrial, and/or related urban uses (see “General Existing Land Use” map). A review of some of the more significant characteristics of land use and development in the Township follows.

Agriculture

Farming operations occupy approximately 45% (10,500 acres) of the Township acreage. Farming is evident throughout all areas of the community except along the bottomlands of the Flat River corridor. Nearly all of the farm acreage is used for crop production with only limited and small-scale livestock operations. Some of the more commonly harvested crops are potatoes, beans, corn, and hay.

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. The Act establishes a program whereby farmers can enroll

Residential Development and Land Division

Residential development comprises approximately 4.5% (1,100 acres) of the acreage in Montcalm Township. The 2000 Census recorded 1,321 dwelling units, 162 more than the 1,159 dwellings recorded in 1990. Of the 1,321 dwellings in 2000, 78.7% were single family dwellings constructed on-site and nearly the entire balance were comprised of mobile homes (20.4%). 12 units were located within duplexes and buildings containing three or four units. 88.3% of the dwellings units in 2000 were owner-occupied, and 11.7% were renter-occupied.

The 2000 Census reported that 52.1% of the dwelling units were constructed between 1940 and 1979, and 13.3% were constructed prior to 1940 (see Table A-1). Thus 34.6% of the dwelling units were constructed during the previous twenty years. These figures suggest an overall younger housing stock than the County and State as a whole. 12.6% of the dwellings in the Township in 2000 were vacant. The majority of the vacancies (59.3%) were due to seasonal use. The 2000 median value of the owner-occupied housing stock in the Township was \$92,600. This value is between that of the County and State.

**TABLE A-1
Selected Housing Characteristics, 2000**

| DWELLINGS | MONTCALM TOWNSHIP | MONTCALM COUNTY | STATE OF MICHIGAN |
|-----------------|-------------------|-----------------|-------------------|
| Year Built (%) | | | |
| Since 1980 | 34.6 % | 31.2% | 25.2% |
| 1940 to 1979 | 52.1% | 47.0% | 57.8% |
| Before 1940 | 13.3% | 21.8% | 16.9% |
| Median Value | \$92,600 | \$84,900 | \$115,600 |
| Median Mortgage | \$829 | \$778 | \$972 |
| Median Rent | \$528 | \$455 | \$546 |

Source: 2000 U.S. Census

Residential development in Montcalm Township can be divided into three principal forms. The first and original form is that of farm homestead. During the early half of the 1900's, primarily large farm parcels of 40 to 80 acres or more characterized the land division pattern in the community. Farm houses were erected to house the farm families. These farm houses are still very evident and this large tract land division pattern continues to contain the vast majority of the Township's acreage.

A second form of residential development is that of platted subdivisions, and account for the majority of dwellings in the community. Platted subdivisions consists of multiple land divisions established as a unified development project, pursuant to the platting requirements (platted subdivisions) of the Land Division Act (formerly Subdivision Control Act). Platted subdivisions in Montcalm Township initially appeared around the Turk Lake area as early as the 1920s, including Sunny Side Terrace, Pearl Beach, and Turk Lake Point. Few subdivisions were developed in the 1930s and 1940s, and the 1950s through the 1970s witnessed the development of the majority of the subdivisions. More than 30 subdivisions exist in the Township today. Lot sizes in the subdivisions vary, but typically range between one-quarter to one acre. Those subdivisions developed prior to 1960 tend to reflect smaller lot sizes, including lots as small as 3,200 square feet (one-fourteenth of an acre). However, many of the residences in these subdivisions occupy two or more lots. The subdivisions are scattered although the majority abut or are in close proximity to Turk, Perch and Fish Lakes, and in the Gowen area.

The third principal form of residential development that has evolved is residences located on five to ten-acre parcels fronting on the Township's principal road network (Section-line and similar roads). This land division pattern was not evident well into the mid-1900s, However, by 1970, five and ten-acre splits off of farm tracts had begun to appear. Five and ten-acre parcels have continued to become more evident. Today, while the vast majority of the Township's acreage continues to be contained in parcels of 40 to 80 acres or more, five and ten-acre parcels are evident in most of the Sections of the Township. However, the proliferation of five and ten-acre parcels has not occurred in Montcalm Township to the extent it has in so many rural Michigan communities.

This trend of parcel splitting along the Township's section-line roads is commonly referred to as *strip development*, and need not be limited to large parcels. Many of the platted subdivisions include lots that front directly on principal roads, including M-91. This development pattern has been the source of increasing concern in the transportation and land use planning arena due to its negative impacts upon traffic safety, congestion, farmland preservation, and rural character preservation.

Commercial Development

Commercial development in Montcalm Township covers approximately 70 acres and is primarily limited to the M-91 corridor, Gowen, and the Peck/Vining Rds. area. Approximately 35 retail and service-oriented business are present in the community today. The M-91 corridor accounts for about two-thirds of these business, the majority being situated in the northern half of the Township between Sidney Road and the Turk Lake area, and within one mile of Wise Road (the Township's southern boundary). M-91 businesses address both consumer needs of the local population as well as those of the highway traveler and include such businesses as boat, auto and trailer sales; bait shop; service station and convenience stores; self-storage; construction and home improvement; veterinary services; restaurant/bars; and hair care.

Commercial development along M-91 has largely evolved in a strip development matter – businesses are developed independently of one another on abutting parcels, with buildings and parking areas in close proximity to and fronting directly along the highway with multiple curb-cuts.

Gowen businesses are more locally oriented and include such uses as a bait and reel shop, tanning and hair care services, and a service station/convenience store. Businesses in the Vining/Peck Roads area include concrete sales, moving services, and construction services.

Industrial Development

There are approximately seven industrial businesses in the Township. The majority are located along Vining Road near Peck Road and consist of storage facilities, metal fabricators and a trucking company. These facilities occupy the old Ore-Ida potato processing plant. The plant was abandoned in the late 1980's and is now part of the state's Renaissance Zone program. This economic development program provides state tax abatements to encourage, in part, the reuse of abandoned facilities. Other industrial uses include a potato packing facility at the at M-91 and Sidney Road, and a junk yard on M-91 south of Holland Lake Road. There are also several small extraction operations scattered throughout the Township.

Community Facilities & Services

Government Administration

A five member Township Board governs Montcalm Township. Township offices are located in the Township Hall at the northwest corner of M-91 and Colby Road. The Hall includes the offices of local officials and staff and a large meeting room.

Cemeteries

Montcalm Township operates and maintains four cemeteries, and include:

East Montcalm Cemetery on M-91 in Section 27.

West Montcalm Cemetery on S. Johnson Rd. in Section 31.

Little Denmark Cemetery on S. Johnson Rd. in Section 7.

Monroe Cemetery on S. Monroe Rd. in Section 28.

Education

Nearly the entire Township is served by Greenville Public Schools. Approximately 400 acres along the Township's northern periphery, near M-91 and in the northeast corner, are served by Lakeview Public Schools. Approximately 320 acres along Ferris Road along the eastern periphery of the Township are served by the Central Montcalm School District. None of the three public school systems have school facilities in Montcalm Township.

Public Sewer and Water

There is no public sewer or water in Montcalm Township. Sewer service had been extended to the old Ore-Ida plant from the City of Greenville when the plant was first established. Upon the plant's closing, the sewer service was discontinued.

Emergency Services

Montcalm Township provides fire protection to area residents through the Montcalm Township Fire Department. The Township's single fire station is located adjacent to the Township Hall on M-91 at Colby Road. Police protection services are provided by the Montcalm County Sheriff's Department. The Sheriff's Department provides emergency service to all area townships on an as-needed basis. In addition, the Michigan State Police provide service along M-91.

Montcalm Township residents rely on the Montcalm County Emergency Medical Service for their ambulance needs. This public service is funded by the County and through user fees. The nearest ambulance station is located on the south side of Wise Road in abutting Eureka Township.

Recreation

Montcalm Township operates a single recreation site, comprised of the Township Hall property and its associated recreation fields and facilities. Park facilities at the site include a tennis court, basketball courts, baseball field, picnic shelter, playground, and nature trails. Township residents also have access to the numerous recreational facilities and services of other public bodies including the school facilities and programs of the local school districts, the parks and recreation programs of nearby municipalities including Greenville, as well as regional facilities operated by Montcalm County and the state, including the Flat River State Game Area.

Appendix B

ENVIRONMENTAL FEATURES

Geology & Topography

During the Paleozoic era of geological history, Montcalm 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. The majority of Montcalm Township sits upon Red Beds bedrock, consisting primarily of sandstone, shale, and clay. The balance, comprised of portions of the Township's southern periphery and northeast quarter, sits upon Saginaw Formation bedrock. This bedrock consists of sandstone with interbedded shale, limestone, coal and gypsum. 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, the depth of the drift layer in Montcalm Township ranges from approximately 450 to 525 feet.

The Township's topography can be generally described as level to nearly level. The vast majority of the Township reflects grades of 1% or less. There are only limited instances where grades approach 5% and these areas are generally limited to the peripheral areas of the Township's northwest quarter. There is an approximately 130 foot difference between the Township's highest and lowest elevations. The lowest elevations, approximately 820 feet above sea level, can be found along the bottomlands of the Flat River in the Township's southwest quarter. The highest

elevation, approximately 950 feet above sea level, is located in the area of the Johnson and Dickerson Lake Roads intersection in the northwest corner. Elevations generally fall as one travels southwest across the Township.

The character of an area's geology and topography has bearing on development and land use planning. Land use planning guidelines recommend that development be generally discouraged in areas dominated by 12% – 18% slopes, and severely limited in steeper areas. Geology can also impact the availability of potable water, and this issue is further discussed under "Groundwater."

Drainage & Water Courses

Drainage is facilitated through a network of watercourses and wetlands (See "Existing Land Use" and "Wetlands" Maps). The most dominant water course is the Flat River. The Flat River originates in the southern half of Isabella County to the north and travels south through Montcalm County and Ionia County, and into Kent County where it empties into the Grand River. The Grand River flows west to Lake Michigan. The Flat River and its tributaries drain nearly all of the west and central portions of the Township. Dickerson Creek, the other principal watercourse, flows south along the Township's far eastern periphery and drains nearly all of the balance of the Township. Dickerson Creek drains into the Flat River in northern Ionia County near Belding.

Assisting in the collection and discharge of runoff is a network of lakes and wetlands. Montcalm Township is located within a region characterized by abundant lakes and wetlands. The Township is characterized by approximately 17 lakes approaching 10 acres or

more in size, and thousands of acres of wetlands. The lakes are scattered throughout the Township, although to a lesser degree in its northeast quarter. The largest of the Lakes is Turk Lake in the Township's north central region, just east of M-91. The lake covers approximately 175 acres. Fish Lake, the second largest lake, covers approximately 65 acres and is located in the central region of the Township's southeast quarter. Perch Lake covers approximately 60 acres and is located one mile southeast of Gowen. The balance of the lakes is less than 20 acres in size.

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. Serious flooding has not been a common occurrence in Montcalm Township. This is due in large part to the comparatively limited development (impervious surfaces) in the Township, and the network of drainage courses and wetlands that carry and store runoff.

Although Montcalm Township may be relatively free of any regular threat of flooding, improperly managed land development practices can impact flood conditions both in the Township and in communities downstream.

Groundwater

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. Aquifers consisting of water held in the underlying soils, versus the bedrock, are called glacial aquifers and serve as the primary source of potable water for Montcalm Township residents. The water drawn from this glacial aquifer is considered to be of good quality, although somewhat "hard" (high presence of calcium carbonate). Many residents use water softeners to correct this condition.

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 the aquifer from contaminants seeping into the subsurface above the confining soil layer, such as petroleum products, fertilizers, and improperly disposed household liquids. Unconfined systems do not have this protective layer of clay soil and are much more prone to contamination. Well logs from the Mid-Michigan Health District suggest that a

clay layer of ten feet or more in thickness is typically present above the glacial aquifer from where potable water is drawn.

Vegetation

Vegetative cover in Montcalm Township is comprised largely of cropland, accounting for approximately one-half of the Township area. The principal exceptions are those areas characterized by wetlands, woodlands, or residential development and its associated lawn areas.

There are approximately 4,000 acres of wetlands in the Township, comprising 18% of its landscape (See "Wetlands" Map). The wetlands are located throughout the Township but are most prominent along the Flat River and Dickerson Creek corridors. Many of the wetland areas are part of extensive elongated systems stretching two to three miles in total length. Approximately one-half of the wetlands are comprised of lowland hardwoods such as ash, elm, soft maples, and cottonwoods. The balance is comprised of shrubby wetlands.

In addition to the lowland woodlands that comprise portions of the wetlands, there are approximately 3,000 acres of upland woodlands in the Township (See "Woodlands" Map). These woodlands are predominantly characterized by such species as sugar and red maple, elm, beech, cherry, basswood, and white ash. The vast majority of the upland woodlands are located along the upper elevations of the Flat River corridor, and many are in excess of 100 acres in area.

The network of wooded and non-wooded wetlands is important because of the vital role these resources play in flood control, runoff purification, groundwater recharge, wildlife habitats, recreational opportunities, and supporting the rural character of the Township. 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 resource areas. In addition to the environmental constraints wetlands pose for development, wetlands present severe physical constraints for land development due to wetlands, flooding and instability of soils.

Soils

The U.S. Department of Agriculture, Natural Resources Conservation Service, has prepared a soil survey for Montcalm County. The survey reveals that the majority of the Township is characterized by sand, sandy loam, and loamy sand soils. Soils along the Flat River and Dickerson Creek corridors include considerable muck and peat soils. Muck and peat soils are frequently evident in wetland areas.

The character of soils can have a profound impact upon the suitability of future land uses 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) which provides a reliable basis for Township planning purposes.

According to the Natural Resources Conservation Service, approximately two-thirds of the Township presents severe limitations to septic systems due to seasonally high water tables, ponding, poor soil filtration characteristics and/or soil wetness. These "severe" rated soils are present throughout the Township in a marbled pattern but are most concentrated along the Flat River and Dickerson Creek bottomlands. A primary concern is the soil's ability to absorb and break down the leachate from the septic drain fields before it reaches underground water supplies. This can be particularly troublesome where soils are characterized by wetness and poor percolation rates. Limitations on septic systems by soils can often be overcome with increased lot sizes and/or specially engineered septic systems at additional costs. Soils that present only moderate or slight limitations are similarly scattered throughout the Township in a marbled pattern.

The Montcalm County Health Department is responsible for issuing permits for on-site sewage disposal. A permit will not be issued unless all county requirements have been met. Under typical conditions, sites of approximately one acre are generally adequate to meet the Health Department's requirements for effective septic systems, including a back-up area should the initial drain field fail. Sites less than one acre must meet more stringent standards and may not be able to do so due to soil conditions. Development at this density may require a sewer system.

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.

Only limited soils in the Township are classified by the Natural Resources Conservation Service as *prime farmland*. 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 areas that are classified as prime farmland are concentrated in or near the Township's southeast quarter.

Climate

The climate of Montcalm Township can be classified as mild. Based upon data collected by the Department of Agriculture between 1912 and 1955 in Greenville, the average daily temperature is 47.6° F. By comparison, the average daily temperature in Sault St. Marie in the Upper Peninsula is 39.7° F. The average summer temperature is 69.7° F and the average winter temperature is 24.9° F. Average yearly precipitation is 29.68 inches and average yearly snowfall is 43.4 inches. May and June are typically the wettest months, with an average monthly rainfall of 3.39 inches.

Because the day-to-day weather is controlled by the movement of pressure systems across the nation, this area seldom experiences prolonged periods of hot, humid weather in the summer or extreme cold during the winter. The prevailing westerly winds blowing over Lake Michigan often produce cloudiness which extends across Michigan's entire Lower Peninsula, modifying fall and early winter temperatures. Weather conditions change gradually between the seasons. The climate of Montcalm County as a whole is favorable for the growth of most farm crops cultivated in Michigan.

Appendix C DEMOGRAPHIC FEATURES

POPULATION GROWTH TRENDS

Montcalm Township's population growth has been strong during the past 70 years (See Table C-1). The population grew from 873 persons in 1930 to 3,178 in 2000. The Township's ten-year growth rates during this period have ranged from 8.7% (1930s) to as high as 37.3% (1950s). Except during the 1990s, the Township's growth has consistently out-paced that of Montcalm County and the State as a whole, frequently by as much as 100% or more. The greatest example of this disproportional growth occurred in the 1980s when the Township's 14.2% growth rate far exceeded the state's 0.4% growth rate. In the 1990s, the County's 15.5% growth rate exceeded the Township's 10.4% rate. The Township's share of the County population has been steadily increasing. Its 3.2% share of the County population in 1930 rose to 5.2% in 2000.

Montcalm Township's growth is a reflection of the trend across Michigan – persons exiting urban areas for a more suburban and rural life style. However, the Township's 10.4% growth during the 1990s was more than 2 1/2 times the average 4% growth experienced by all townships across the state. Still, this rate is considered moderate when compared to the communities surrounding Montcalm Township in Montcalm County, where growth rates ranged from 14.2% – 26.1%. Montcalm Township's 2000 population of 3,178 places the Township as the fourth largest community in the County, behind the City of Greenville (7,935) and the Townships of Reynolds (4,279), and Eureka (3,271).

The Township's rising population has increased population density. Its population density was 24.0 persons per square mile in 1930 and increased to 87.5 persons per square mile in 2000. By comparison, the City of Greenville, the County's most densely populated community, had a 2000 population density of 1706 persons per square mile.

TABLE C-1
Population Trends & Growth Rates
(previous ten-year growth rate indicated by "%")

| YEAR | MONTCALM TOWNSHIP | | MONTCALM COUNTY | | STATE of MICHIGAN | |
|------|-------------------|-------|-----------------|-------|-------------------|-------|
| 1930 | 873 | | 27,471 | | 4,842,325 | |
| 1940 | 949 | 8.7% | 28,581 | 4.0% | 5,256,106 | 7.9% |
| 1950 | 1,180 | 24.3% | 31,013 | 8.5% | 6,371,766 | 17.6% |
| 1960 | 1,620 | 37.3% | 35,795 | 15.4% | 7,823,194 | 18.6% |
| 1970 | 1,984 | 22.5% | 39,660 | 10.8% | 8,881,826 | 11.9% |
| 1980 | 2,521 | 27.1% | 47,555 | 19.9% | 9,262,078 | 4.1% |
| 1990 | 2,879 | 14.2% | 53,059 | 11.6% | 9,295,297 | 0.4% |
| 2000 | 3,178 | 10.4% | 61,266 | 15.5% | 9,938,444 | 6.9% |

Source: U.S. Census Bureau

POPULATION PROJECTIONS

Estimating future population growth can provide important insights into identifying future land use and public services needs. Projecting the growth of a community's population over a prescribed period of time is not an exact science. The many unpredictable factors which affect growth make population projections somewhat speculative. By using several projection techniques, a range of growth estimates can be generated. These shed light on potential growth if planning policies and land development regulations are generally held constant.

The current trend approach assumes that the Township will continue to grow at a rate similar to

that which occurred between 1990 and 2000 (10.4% every ten years). The historical trend approach assumes the Township will grow at a rate that reflects the Township's average growth rate between the years 1930 and 2000 (20.6% every ten years). The ratio trend approach assumes the Township will increase its share of the County population by 0.28% each ten years – the average ten-year proportional share increase since 1930. The ratio trend projection yields a ten-year growth rate of approximately 13%. This projection relies on the Michigan Department of Management and Budget's county population projections. The average of the resulting projections yields a population of 3,644 in year 2010 and 4,183 in year 2020. (See Table C-2)

TABLE C-2
Montcalm Township Population Projections

| Projection Method | Year 2010 | Year 2020 |
|--------------------------|--------------|--------------|
| Current Trend | 3,509 | 3,873 |
| Historical Trend | 3,833 | 4,622 |
| Ratio Trend | 3,589 | 4,055 |
| Average of Trends | 3,644 | 4,183 |

SOCIAL and ECONOMIC CHARACTERISTICS

The following summarizes social and economic characteristics of Montcalm Township. Additional demographic information is contained in the tables that follow. Census 2000 data is presented where available at this time.

The 2000 Census showed Montcalm Township as a more homogeneous racial population than the County and State as a whole (See Table C-3). 98.2% of the Township population was white, compared to 94.8% for the County and 80.2% for the State. This homogeneity is typical of rural Michigan communities, as compared to more urban areas such as Grand Rapids. 28.1% of the Township's 2000 population was less than 18 years of age, and 20.0% was age 55 or higher. This age structure is generally similar to that of the state as a whole. However, these rates are considerably higher than the county. In contrast, the 60.1% of the county's population that was between 18 – 54 years of age was significantly higher than the Township's 52.0%. The 2000 median age of 36.2 years reflects a population that is slightly older than

that of the County and State as a whole, surpassing the County's and State's median age by approximately eight months. Like the balance of the state and nation, the Township's residents are continuing to mature. Its 2000 median age of 36.2 years reflects a 27.5% increase over its 1990 median age of 28.4 years. (See Table C-4)

The 2000 Census recorded 1,154 households and 887 families in the Township. The average household size was 2.75 persons, and the average family size was 3.08 persons. Of all the households in the Township, 62.6% included a married-couple. This percentage is somewhat higher than that for the County (58.8%) and significantly higher than that for the State (51.4%). Of the 14.3% of families not consisting of a married couple, nearly two-thirds were headed by a female householder. 23.1% of all households were comprised of non-family households, somewhat over half of which were headed by a male householder. (see Table C-5)

TABLE C-3
Race, 2000
 (By Percent)

| RACE | MONTCALM TOWNSHIP | MONTCALM COUNTY | STATE of MICHIGAN |
|--|-------------------|-----------------|-------------------|
| White Alone | 98.2 | 94.8 | 80.2 |
| Black/African American Alone | 0.1 | 2.2 | 14.2 |
| American Indian, Alaska Native Alone | 0.6 | 0.6 | 0.6 |
| Asian Alone | 0.1 | 0.3 | 1.8 |
| Native Hawaiian/Other Pacific Islander Alone | 0.0 | 0.0 | 0.0 |
| Some Other Race Alone | 0.3 | 0.6 | 1.3 |
| Two or More Races | 0.6 | 1.5 | 1.9 |

Source: 2000 U.S. Census

TABLE C-4
Age, 2000
 (By Percent, except where otherwise noted)

| AGE | MONTCALM TOWNSHIP | MONTCALM COUNTY | STATE of MICHIGAN |
|-----------------|-------------------|-----------------|-------------------|
| Under 5 yrs. | 5.2 | 6.3 | 6.8 |
| 5 – 17 yrs. | 22.9 | 17.1 | 19.4 |
| 18 - 24 yrs. | 7.8 | 18.5 | 9.4 |
| 25 - 39 yrs. | 21.2 | 21.4 | 21.6 |
| 40 – 54 yrs. | 23.0 | 20.2 | 21.9 |
| 55 - 64 yrs. | 9.5 | 7.1 | 8.7 |
| 65 - 79 yrs. | 8.4 | 6.9 | 9.1 |
| 80 yrs. or more | 2.1 | 2.5 | 3.2 |
| Median Age | 36.2 yrs. | 35.6 yrs. | 35.5 yrs. |

Source: 2000 U.S. Census

TABLE C-5
Household Type, 2000
 (By Percent)

| HOUSEHOLD TYPE | MONTCALM TOWNSHIP | MONTCALM COUNTY | STATE OF MICHIGAN |
|-----------------------|-------------------|-----------------|-------------------|
| Married-couple family | 62.6 | 58.8 | 51.4 |
| Other family: | 14.3 | 14.5 | 16.6 |
| Male householder | 4.9 | 4.8 | 4.1 |
| Female householder | 9.4 | 9.7 | 12.5 |
| Non-family household | 23.1 | 26.7 | 31.9 |
| Male householder | 13.3 | 13.0 | 14.9 |
| Female householder | 9.9 | 13.8 | 17.0 |

Source: 2000 U.S. Census

MONTCALM TOWNSHIP MASTER PLAN

The Township's labor force in 2000 was comprised of 1,645 persons. The three principal employment industries for Montcalm Township workers, as well as for the County and State, were 1) manufacturing; 2) retail trade; and 3) education, health, and social services (see Table C-6). However, the 37.2% of the Township's labor force that was employed in the manufacturing industry was significantly higher than that of the County (29.7%) and State (22.5%). Conversely, the 12.6% of the Township's labor force that was employed in the education, health, and social services industry was significantly lower than

that of the County (17.6%) and State (19.9%). The Township's average unemployment rate in 2002, through July, was 12.1%, compared to 9.5% and 6.6% for the County and State as a whole.

In 2000, 2.0% of Township workers did not leave their home to go to work. For those who did commute to work, the average travel time was 28 minutes.

TABLE C-6
Employment by Industry, 2000
 (employed persons 16 years and older, by percent)

| OCCUPATION | MONTCALM TOWNSHIP | MONTCALM COUNTY | STATE of MICHIGAN |
|---|-------------------|-----------------|-------------------|
| Manufacturing | 37.2 | 29.7 | 22.5 |
| Retail trade | 14.9 | 12.4 | 11.9 |
| Education, health, and social services | 12.6 | 17.6 | 19.9 |
| Professional, scientific, management, administrative, waste management, and other services | 7.5 | 8.2 | 12.6 |
| Construction | 6.9 | 7.5 | 6.0 |
| Art, entertainment, recreation, accommodations, and food services | 6.3 | 5.9 | 7.6 |
| Transportation, warehousing, and utilities | 4.1 | 3.4 | 4.1 |
| Finance, insurance, and real estate | 3.6 | 3.5 | 5.3 |
| Wholesale trade | 2.4 | 2.5 | 3.3 |
| Information | 2.3 | 1.6 | 2.1 |
| Public administration | 1.3 | 3.8 | 3.6 |
| Agriculture, forestry, fishing, hunting, and mining | 1.0 | 3.3 | 1.1 |

Source: 2000 U.S. Census

The Township's median household income (\$43,485) median family income (\$50,558), and per capita income (\$17,691) placed the Township in a position of prosperity between that of the County and State as a whole. However, the Township's 3.4% of families in 2000 that were below poverty level was less than half the rate of the County and State. (see Table C-7)

The 1990 Census revealed Montcalm Township residents had a somewhat equal level of formal education as the County, and a lower level than the State. 19.4% of Township residents 25 years or older had not received a high school education, compared to 16.7% for the State. Similarly, the completion of high school was the highest level of education for 39.4% of Township residents 25 years or older compared to 31.3% for the State. The 8.1% of the State's population that had attained a graduate or professional degree was nearly five times the rate as for the Township. (see Table C-8)

TABLE C-7
Income, 1999

| INCOME CHARACTERISTIC | MONTCALM TOWNSHIP | MONTCALM COUNTY | STATE OF MICHIGAN |
|------------------------------|--------------------------|------------------------|--------------------------|
| Median household income | \$43,485 | \$37,218 | \$44,667 |
| Median family income | \$50,558 | \$42,823 | \$53,457 |
| Per capita income | \$17,691 | \$16,183 | \$22,168 |
| Families below poverty level | 3.4% | 7.4% | 7.4% |
| Persons below poverty level | 7.4% | 10.9% | 10.5% |

Source: 2000 U.S. Census

TABLE C-8
Highest Level of Education Attainment, 2000
(for persons 25 years of age, by percent)

| HIGHEST EDUCATION ATTAINMENT | MONTCALM TOWNSHIP | MONTCALM COUNTY | STATE of MICHIGAN |
|-------------------------------------|--------------------------|------------------------|--------------------------|
| Less Than 9th Grade | 6.1 | 5.3 | 4.7 |
| 9th to 12th, no diploma | 13.3 | 13.5 | 11.9 |
| High School Diploma | 39.4 | 39.9 | 31.3 |
| Some college, no degree | 28.0 | 23.6 | 23.3 |
| Associates Degree | 7.4 | 6.8 | 7.0 |
| Bachelor's Degree | 6.1 | 7.2 | 13.7 |
| Graduate/Professional Degree | 1.7 | 3.6 | 8.1 |
| High school graduate or higher | 80.5 | 81.1 | 83.4 |
| Bachelor's degree or higher | 7.8 | 10.8 | 21.8 |

Source: 2000 U.S. Census

Appendix D
INVENTORY MAPS