CHARTER TOWNSHIP OF WATERFORD OAKLAND COUNTY MICHIGAN

MASTER PLAN 2003 – 2023

Moving Forward Together

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN 2003 – 2023

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WATERFORD TOWNSHIP MASTER PLAN CITIZEN ADVISORY COMMITTEE

WATERFORD TOWNSHIP COMMUNITY PLANNING AND DEVELOPMENT DEPARTMENT

January 2003

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Oakland County Drain Commissioner
Oakland County International Airport
Oakland County Parks and Recreation
Oakland Land Conservancy
Road Commission for Oakland County
Traffic Improvement Association
Waterford Historical Society
Waterford School District
Waterford Cultural Council

RESOLUTION OF ADOPTION
WATERFORD TOWNSHIP MASTER PLAN

MOTION BY: Bette O'Shea

SUPPORTED BY: Steven Reno

RESOLVED THAT:

WHEREAS, the Township Planning Act (P.A. 168 of 1959) provides the Charter Township of Waterford Planning Commission with the authority to prepare and adopt a community-wide Master Plan; and

WHEREAS, the Plan is intended to serve as a guide and planning tool for the future development and redevelopment of the Township; and

WHEREAS, the Planning Commission undertook an extensive citizen involvement process during the calendar years 2001 and 2002 to assist in the development of this Master Plan; and

WHEREAS, notices were duly published to hold public hearings on elements of the Master Plan; and

WHEREAS, a final public hearing was held on November 26, 2002, on the Master Plan, which included a presentation of the proposed text elements, and maps addressing regional location, population, physical and environmental features, economic characteristics, goals and objectives, future land use and related plans, information on the citizen subcommittee process which developed the core of the Master Plan goals and objectives, in accordance with Act 168 of 1959, as amended; and

WHEREAS, the Waterford Township Planning Commission reviewed the public hearing comments at subsequent meetings and revised the Master Plan after due consideration; and

WHEREAS, the Waterford Township Planning Commission has reviewed the final draft Master Plan prepared by the Waterford Township Community Planning and Development staff;

NOW THEREFORE BE IT RESOLVED, that the Waterford Township Planning Commission, on this date, January 2, 2003, herewith adopts the Master Plan dated December 30, 2002, and including all appendices to be prepared by Township staff and documents incorporated into the Master Plan by reference.

BE IT FURTHER RESOLVED, that the Waterford Township Planning Commission shall forward this Master Plan to the Waterford Township Board and the Oakland County Planning Commission in accordance with Act 168 of the Public Acts of 1959.

AYES: Cumberworth, Fisher, Griffin, O'Shea, Pinner, Reno and Werth

NAYS: None

ABSENT: Allen and Hudson

ABSTAINED: None

I, Sandra Werth, Chairperson of the Charter Township of Waterford Planning Commission, and I, Ellie Pinner, Secretary of the Charter Township of Waterford Planning Commission, hereby certify that the above is a full and true copy of a resolution adopted by the Charter Township of Waterford Planning Commission on January 2, 2003.

Sandra L. Werth

Sandra Werth, Chairperson
Charter Township of Waterford
Planning Commission

Ellie Pinner

Ellie Pinner, Secretary
Charter Township of Waterford
Planning Commission

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WATERFORD TOWNSHIP MASTER PLAN 2003-2023
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CHAPTER 1 – EXECUTIVE SUMMARY

The Charter Township of Waterford, located in the geographic center of Oakland County, Michigan, has grown from a farming community in the 19th Century to a developed community of over 73,000 residents at the dawn of the 21st Century. The Township now faces the challenges of a mature community striving to maintain and improve its infrastructure and land use for the enjoyment and safety of its citizens. Municipal planning is a critical component of local government's exercise of power to address these challenges by providing for the physical and social infrastructure necessary for the general health, safety, and welfare of its citizens. The primary long-range planning tool of the community, the Master Plan, is the only official Township document that sets forth policies to guide future land use in the community. The Township derives its authority to prepare and implement this policy document from the Township Planning Act, P.A. 168 of 1959 (as amended in 2001). The Master Plan provides a single, comprehensive view of the community's vision for its future. The Master Plan also serves as an aid in daily decision-making and guiding the Planning Commission and Township Board in their deliberations on zoning, subdivision, capital improvements, economic development, environmental protection, and other matters relating to land use and development. It is the basis for the Zoning Ordinance and other regulations, therefore it is important for every property owner to be aware of the contents of the Master Plan and the efforts to implement the goals and objectives contained within the community's Master Plan.

The Planning Commission developed Waterford's new Master Plan during 2000-2002 with significant citizen involvement. The Planning Commission was assisted by over 70 citizens who dedicated their time to participate in the master planning process. The process involved reviewing the Township's past and current land use patterns, as well as its physical, social, and economic characteristics. The Planning Commission organized nine Master Plan Subcommittees, with each subcommittee focusing on and reviewing a specific topic. The nine topics were: transportation and commercial corridors; environment; recreation and open space; historic district and neighborhood nodes; capital improvements and municipal services; economic development; education and public services; housing and demographics; and zoning ordinance and landscape aesthetics. The Planning Commission used the information and citizen views gathered during this process to prepare a Master Plan document to guide Waterford's future land use and development patterns during the next twenty years. This Master Plan was adopted by the Waterford Township Planning Commission on January 2, 2003.

MASTER PLAN CONTENT

The Master Plan is organized into two volumes. The first volume contains the Plan itself, while the second volume contains supporting documentation used to develop components of the Master Plan. The second volume also contains sections reserved for the major documents that will be prepared as a result of Master Plan implementation. The first volume of the Master Plan is organized as follows:

Volume One – Master Plan

- **Acknowledgements**
- **Chapter 1 – Executive Summary**
- **Chapter 2 – Introduction**
- **Chapter 3 - Geography and Brief History of Waterford Township**
- **Chapter 4 - Organization of Waterford Planning and Zoning**
- **Chapter 5 - Background Studies Summary**
- **Chapter 6 - The Master Plan Public Participation Process**
- **Chapter 7 - Subcommittee Goals and Objectives**
- **Chapter 8 - Future Land Use Plan and Maps**
- **Chapter 9 – Implementation**

The first five chapters provide the past and current background of Waterford, the foundation upon which the new Master Plan is based. Chapter 6 provides a detailed overview of the three-year master planning process used by the Planning Commission. Chapter 7 contains a summary of the process used, and the proposed goals and objectives developed by each Master Plan Subcommittee. All of the goals and objectives outlined in this chapter were used by the Planning Commission as the basis for the seven Master Plan Goals. Chapters 8 and 9 provide the components of Waterford's future land use and development policies and goals, as well as the objectives and strategies recommended for accomplishing the policies and goals.

The second volume of the Master Plan is organized as follows:

Volume Two-Appendices

- **Appendix A - Background Studies**
- **Appendices B through J - Master Plan Subcommittee Minutes**
- **Appendix K - Public Participation Process Documentation and Reports**
- **Appendix L - Traffic Analysis**
- **Appendix M - Walkability Study**
- **Appendix N - Transportation Plan**
- **Appendix O - Community Facilities Analysis**
- **Appendix P - Capital Improvements Plan**
- **Appendix Q - Neighborhood Node and Area Concept Plans**
- **Appendix R - Zoning Ordinance and Landscape Aesthetics Subcommittee Draft Ordinance Report**
- **Appendix S - Waterford Recreation Plan**
- **Appendix T - Wellhead Protection Plan**
- **Appendix U - Oakland County International Airport Master Plan**
- **Appendix V - Waterford School District Master Plan**
- **Appendix W - Oakland County Service Center Complex Master Plan**

Appendix A contains demographic studies and statistical analyses that were used as the foundation for the review and conclusions regarding existing land use and Waterford's demographic, social, and economic patterns. A summary of Appendix A content is included in Chapter 5 of Volume One. Appendices B through J provide the official minutes of every Master Plan Subcommittee meeting held during April through September 2001. Appendix K contains examples of the public opinion tools and participation exercises used during the master planning process, as well as the reports on the results of these exercises. Appendices L and M contain respectively, analyses of the Township's road system and the nonmotorized path system. These analyses will be used to assist in developing the initial Township Transportation Plan, which when completed will become part of Appendix N. All future versions of the Transportation Plan will be added to Appendix N. Appendix O contains an analysis of the Township's community facilities. This analysis will be used to assist in developing the initial Township Capital Improvements Plan, which when completed will become part of Appendix P. All future versions of the Capital Improvements Plan will be added to Appendix P. One of the main strategies for implementing this Master Plan will be the preparation and proactive development of conceptual plans for the identified neighborhood node areas and major development areas. These plans, when prepared, will be added as part of Appendix Q. Appendix R will contain the report on the draft Zoning Ordinance that will be proposed as one of the primary tools for implementing this Master Plan. Appendices S through W will contain current and future plans prepared by other governmental entities and identified by the Planning Commission as important components of the Waterford Future Land Use Plan.

MASTER PLAN GOALS

The Planning Commission established the following seven goals to be accomplished during the next twenty years. These goals exhibit a continuation of Waterford's commitment to preserve and protect its natural environment, expand recreational opportunities for Waterford citizens, and maintain the level of municipal and public safety services. The goals also establish a commitment to create a walkable community and to improve the Township's commercial corridors. Objectives and strategies were developed for accomplishing each goal. A detailed list of the goals, objectives, and strategies can be found in Chapter 9.

Goal 1 - **To Maintain, Improve, and Enhance Capital Infrastructure and Public Safety for the Health, Safety, and Welfare of Waterford Citizens**

Goal 2 - **To Improve and Enhance the Transportation Network within Waterford**

Goal 3 - **To Enhance the Walkability of Waterford**

Goal 4 - **To Create an Economic Climate Conducive to the Attraction, Retention, and Expansion of Business**

Goal 5 - **To Increase and Improve Recreational Opportunities for Waterford Citizens**

Goal 6 - **To Ensure and Enforce Land Use Development Practices that are Sensitive to Waterford's Natural Environment**

Goal 7 - **To Retain, Enhance, and Promote Waterford's Unique Character, Sense of Community, and Identity**

FUTURE LAND USE

The Planning Commission established a Future Land Use Plan and Map; these can be found in Chapter 8. As part of the Future Land Use Plan, land use designations were created to guide development during the next twenty years. The overall land usage, which is described in detail in Chapter 8, follows the existing general land use patterns. One noticeable change in future land use designations since the 1991 Master Plan is the distribution within the Commercial and Office designations. This reflects both the community's understanding that it is entering its first redevelopment phase and the Master Plan goal to enhance its commercial corridors. In previous master plans three traditional commercial and office designations were used, Office, Local Business, and Community Business. Through this Master Plan, besides these three traditional designations, the Planning Commission established five area-specific designations in which they want to encourage a particular development focus. These five commercial-based land use designations are Regional Commerce, Central Community Business, High Tech Services, Planned Destination, and Urban Business. These new designations are applied through the Master Plan to specialized focal areas, particularly the center of the Township, the area south of the Oakland County International Airport, the Telegraph and Elizabeth Lake Road retail destination area, the easternmost section of M-59, and the major transportation gateways into the Township. The new designations are also intended to possess additional flexible planning tools in order to achieve the goals and objectives set for these areas.

The Planning Commission adopted the following land use designations that are used in the Master Plan Future Land Use Map:

Public and Open Space Designations

Public Lands – Designation for federal, state, and local government-owned property.

Quasi-Public Lands – Designation for private property offering public benefit, such as golf courses and churches.

Private Common Areas – Designation for residential development property reserved as private open space.

Residential Designations

Single-Family – Designation for property intended for single family dwelling units.

Multiple-Family – Designation for property intended for multiple family dwelling units.

Commercial and Office Designations

Local Business – Designation for property providing small retail, office, and personal services to the immediate residential area and the surrounding vicinity.

Community Business – Designation for property intended to provide retail, commercial, and office services to the entire community.

Central Community Business – Designation for property in the geographic center of the Township which allows the mixture of land uses including office, commercial, and residential.

High Tech Services – Designation allowing for the mixture of land uses including office, commercial, and clean industrial uses.

Office – Designation for property uses providing office services in landscaped settings and generating low-volume traffic.

Regional Commerce – Designation allowing for the mixture of land uses including office and commercial that take advantage of the proximity of the Oakland County International Airport and Automation Alley.

Urban Business – Designation intended to reflect and promote the eastern segment of M-59 with a mix of local and community business and residential.

Planned Destination – Designation intended to accommodate a variety of mixed land uses such as retail, recreation, entertainment, and residential intended to attract local and regional consumers.

Higher Intensity Designations

Airport – Designation of airport land uses.
Light Industrial – Designation for lower intensity industrial property uses.
General Industrial – Designation for the most intensive industrial property uses such as manufacturing.

In addition to the land use designations, the Planning Commission is also proposing three overlay designations. An overlay designation is a zoning tool that observes the specific zoning district attached to a parcel of land while adding new regulations to those of the underlying zone. The overlay zone also offers incentives to property owners and developers to achieve the goals of the Master Plan with respect to the overlay area. The overlay designation is useful for protecting areas with special characteristics, such as environmental or unique geographic qualities, and for encouraging mixed use development. For Waterford, the three overlay designations being proposed for implementation through the Zoning Ordinance are **Historic District**, **Open Space**, and **Gateway**.

Overlay Designations

Historic District - Overlay designation to allow planning for the economic viability and preservation of the Waterford Village Historic District.
Open Space - Overlay designation to allow development provided that natural features and open spaces are preserved.
Gateway - Overlay designation to allow for creative land uses, in tandem with strong aesthetic and landscaping improvements, to develop unique and dynamic gateways into the Township.

Neighborhood Nodes

Another new component of this Master Plan is the designation of the following eight locations for future development as neighborhood nodes:

- Andersonville Road and Dixie Highway
- Dixie Highway and Frembes Road
- Clintonville Road and Walton Boulevard
- Airport Road and Hatchery Road
- Pontiac Lake Road and Scott Lake Road
- Williams Lake Road and Elizabeth Lake Road
- Cooley Lake Road and Elizabeth Lake Road
- Cooley Lake Road and Williams Lake Road

These neighborhood nodes are intended to be used as thriving neighborhood gathering places, encouraging nearby residents to walk to and frequent establishments serving their convenience shopping needs. As this Master Plan is implemented, each location will be extensively analyzed and a neighborhood node plan will be developed.

TRANSPORTATION NETWORK

Several transportation improvement goals were recommended during the master plan citizen participation process and have been incorporated into this Master Plan. These improvement goals include enhancing walkability in Waterford, improving the Township's commercial corridors, constructing the Riverwalk, and the following proposed road improvement projects that are shown graphically in Chapter 8:

- Realign Airport Road at Williams Lake Road
- Realign Watkins Lake Road at Scott Lake Road
- Realign Elizabeth Lake Road at Williams Lake Road
- Extend Williams Lake Road from Gale Road to connect with Nelsey Road
- Extend Crescent Lake Road from Hatchery Road to Williams Lake Road
- Divide Warren Drive into two public streets, one to serve residential properties and the other to serve industrial properties
- Construct grade separations at the Frembes, Hatchery, and Watkins Lake Road railroad crossings
- Extend Coomer Road to connect with Oregon Blvd.
- Create linkages between existing residential developments, where economically feasible and it reasonably enhances neighborhood traffic and public safety vehicle access

Another analysis completed by staff is reflected in the proposed number of future traffic lanes on the major roads in the Township and is shown graphically in Chapter 8. These components will be used as the basis to prepare a Transportation Plan. The Transportation Plan will include sections discussing in detail the Township's thoroughfares, future road lane widths, access management, traffic calming, walkability, and other transportation issues anticipated to arise during the twenty-year period of the Master Plan.

CHAPTER 2 – INTRODUCTION

WHAT IS PLANNING?

Municipal planning is a critical component of local government's ability to provide the physical and social infrastructure for the general health, safety, and welfare of its citizens. Successful planning must include a citizen participation process that involves the conscious selection of policy choices to guide the future land use, growth, and development in the community. The primary long-range planning tool of the community, the Master Plan, is the only official Township document that sets forth policies to guide future land use in the community.

Waterford Township Hall

The Township derives its authority for the preparation of a master plan from the Township Planning Act, P.A. 168 of 1959 (as amended in 2001) Section 6 of the Act, which states in part:

The Township planning commission shall make and approve a basic plan as a guide for the development of unincorporated portions of the township. As a basis for the plan, the township planning commission may do any of the following: (1) Make inquiries, investigations, and surveys of all the resources of the township (2) Assemble and analyze data and formulate plans for the proper conservation and uses of all resources, including a determination of the extent of probable future need for the most advantageous designation of lands having various use potentials and for services, facilities, and utilities required to equip those lands...

HOW IS THE MASTER PLAN TO BE USED?

When prepared with the support and participation of the stakeholders and community at large, the Master Plan serves many functions and is to be used in a variety of ways.

1. The Master Plan is a general statement of the Township's current and future goals and policies. It provides a single, comprehensive view of the community's vision for its future.

2. The Master Plan serves as an aid in daily decision-making. The goals and policies outlined in the Master Plan guide the Planning Commission and Township Board in their deliberations on zoning, subdivision, capital improvements, economic development, environmental protection, and other matters relating to land use and development. The policy orientation of the Master Plan provides decision-makers and Township departments with a framework and basis for analysis, advice, and decisions. This does not imply that the Master Plan is a static statement; the Master Plan should recognize the dynamic character of the community. The variables upon which this Master Plan is based will likely change over time and shall be updated in the form of Master Plan amendments. However, adherence to the goals and policies will provide a stable, long-term basis for decision-making.

3. The Master Plan provides the statutory basis upon which zoning decisions are based. The Township Zoning Act (P.A. 184 of 1943, as amended) requires that the Zoning Ordinance be based upon a plan designed to promote the public health, safety, and general welfare. The Master Plan, both text and maps, do not replace or override Township Ordinances, specifically the Zoning Ordinance and Map. Instead, the Zoning Ordinance is the primary legal and enforcement tool that a community can use to implement the Master Plan.

4. The Master Plan can be a dynamic tool useful in implementing the vision for economic development and infrastructure redevelopment. The Master plan should be utilized so that public and private investments can be combined and guided to those areas and for those goals and objectives identified as creating the greatest positive impact for the citizens of Waterford.

5. The Master Plan can also be a vibrant instrument for achieving the goals and objectives outlined for enhancing and expanding the social and community services of the Township. The Master Plan can be used by various community groups to gain insight into the needs of the community.

6. The Master Plan is an educational tool and gives citizens, property owners, developers and adjacent communities a clear indication of the Township's direction for the future. As such, it is critical that the educational process continues over the life of the Master Plan. Too often, the community is educated on the Master Plan only when it is adopted; a truly dynamic Master Plan is only viable when it is part of the community's consciousness.

In summation, the Township Master Plan is the only officially adopted document that sets forth an agenda for the achievement of goals and policies for the entire Township. It is a long-range statement of general goals and policies aimed at the unified and coordinated development of the Township. As such, it provides the basis upon which zoning and land use decisions are made.

Including Chapter 1, the Executive Summary, and Chapter 2, the Introduction, the Waterford Township Master Plan is comprised of the following Chapters:

- **Chapter 3 - Geography and Brief History of Waterford**
- **Chapter 4 - Organization of Waterford Planning and Zoning**
- **Chapter 5 - Background Studies Summary**
- **Chapter 6 - The Waterford Master Planning Process**
- **Chapter 7 - Subcommittee Goals and Objectives**
- **Chapter 8 - Future Land Use Plan**
- **Chapter 9 - Implementation**

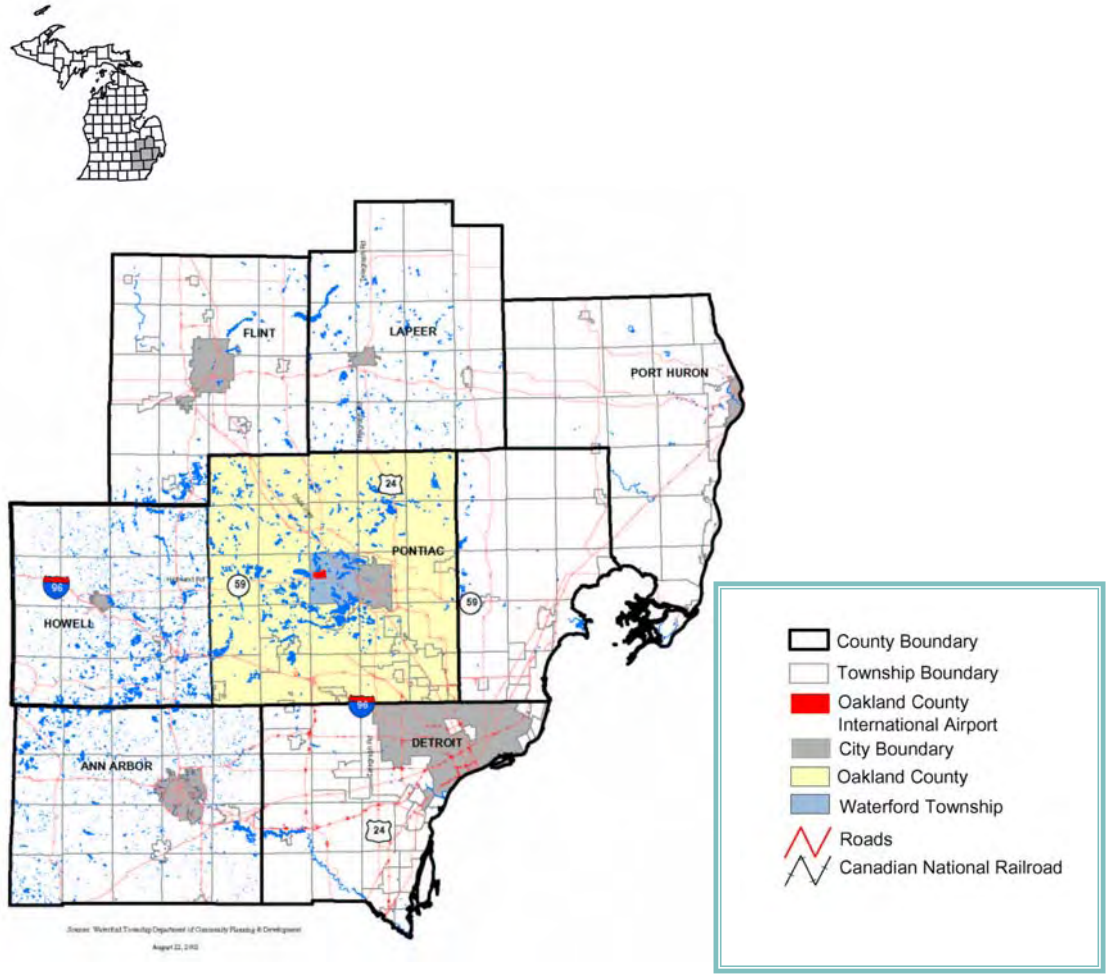
In addition, this Plan includes Appendices containing the complete set of minutes for each subcommittee, a full text of the background studies, analysis data gathered during the Master Plan process, a traffic analysis, a communities facilities analysis, and sections reserved for the Capital Improvements Plan, Transportation Plan, and plans developed by other governmental agencies which are interrelated with this Master Plan.

CHAPTER 3 – GEOGRAPHY AND BRIEF HISTORY OF WATERFORD TOWNSHIP

GEOGRAPHY

Waterford Township, comprising approximately 35 square miles, is located in the geographic center of Oakland County, Michigan. As shown in Map 1, the general location of the Township is in the northwestern portion of the greater Detroit metropolitan area. Waterford borders the Cities of Lake Angelus, Pontiac, and Auburn Hills on the east; the Townships of Springfield, Independence and Orion on the north; the Township of White Lake on the west; and the cities of Sylvan Lake and Keego Harbor, and the Townships of Commerce and West Bloomfield on the south. Waterford is 30 miles northwest of downtown Detroit, 25 miles southeast of Flint, 55 miles east of Lansing, and 35 miles northeast of Ann Arbor.

Map 1 **Location of the Charter Township of Waterford**



Geology

The geology of Waterford Township has been visibly influenced by the glacial history of the United States. Large areas of glacial deposition occurred in the south-central portions of Michigan, including Waterford Township, as evidenced by the existing topography, deposits of glacial drift, and the presence of the many lakes in the Township. The topography of the Township is generally low rolling hills with variations on a minor scale, existing throughout the majority of the area. Land elevations differ between 930 feet and 1,104 feet above sea level.

Climate

The climate of this area is typical of that of the rest of the State of Michigan and other Midwestern states. There are four distinct seasonal changes in the climate, with a moderate growing season from late April to early October. The temperature ranges from an average maximum of 82° Fahrenheit in July to an average minimum of 16° Fahrenheit in January, with an annual mean temperature of 48° Fahrenheit. Annual precipitation averages about 30 inches, with February averaging the lowest monthly precipitation at 1.49 inches and June averaging the highest monthly precipitation at 3.16 inches.

Natural Features

Perhaps the most outstanding natural attraction in Waterford Township is the abundance of water bodies. To a great extent, the opportunity to live near one of these water bodies has been the prime catalyst for Waterford's population growth. Waterford has more than 34 lakes, containing 3,080 acres, which provide ample year round recreational activities. In addition, the main branch of the Clinton River runs through the approximate center of the Township from north to south. Several large wetland areas are also located throughout the Township, particularly in the southwest quadrant of the Township and adjacent to the Clinton River flood plain.

In addition to the lakes and the Clinton River, Waterford Township is fortunate to have two state parks located within its boundaries. Dodge Park No. 4 features an excellent beach on Cass Lake. Pontiac Lake State Park, in addition to a large lake and beach, offers archery and rifle ranges as well as hiking and biking trails that attract outdoor enthusiasts from around southeast Michigan. Combined, the two parks total six square miles of state owned park recreational land. The Michigan Department of Natural Resources (DNR) also maintains access sites on six of the large lakes located in Waterford. These lakes are Oakland, Loon, Maceday, Pontiac, Crescent, and Cass. A locally recognized nature preserve called the Drayton Plains Nature Center is located on the Clinton River and encompasses 137 acres in the center of the Township. The Nature Center provides a haven for waterfowl and wildlife and is a stopover site during spring and fall bird migrations. The Nature Center has an education facility that provides outdoor science programs for local school children and for the citizens of Waterford to learn about their natural environs. Within this Nature Center, the DNR utilizes several rearing ponds each spring to raise native game fish, such as Pike and Walleye, which it stocks in lakes and rivers throughout the State. There are also over 600 acres of Township-owned recreation land and over 400 acres of School District-owned recreation land. About one-third of the total recreation land owned by the Township is contained in its largest park, Elizabeth Lake Woods, a natural conservation area located in the south central part of the Township. The first parcels of this park were purchased in the early 1990s with funds provided by The Nature Conservancy and a State of Michigan grant. The parcels were then deeded to the Township. These parcels contain a mature oak forest occurs on sandy knolls paralleling the Clinton River. The oak forest is bordered on either side by floodplain forest and southern swamp. This forest type is of local and regional ecological significance, as estimates show that less than one percent of the original oak forests of Michigan remain intact. In 1987, of the remaining forests types surveyed by the Michigan Natural Features Inventory, Elizabeth Lake Woods ranked second in sites of statewide importance. The sandy tree-covered hills also provide protection for the rare and endangered freshwater mussel communities, which occur in this section of the Clinton River, but are rapidly

disappearing in other parts of the State. The park provides a tranquil setting for canoers, hikers, and wildlife enthusiasts looking for an escape into nature. *(Please refer to Map 9 on Page 7-35 for general location of parkland and public open space).*

Transportation Links

The Township's landscape has been affected over the years by efforts to create means of moving to and through the Township. The earliest transportation impact on the natural landscape was relatively minor, and was that of Native Americans moving along the Clinton River and the various lakes by canoe. In addition, native Americans initiated a foot trail that provided a way through Waterford, along a route where Dixie Highway and the railroad currently exist. As European settlers began moving into the area, this foot trail developed into the Saginaw Trail. The Saginaw Trail provided the primary route for horse-powered transportation through Waterford and to the first village areas that developed around this early transportation route.

Location of Native American Foot Trails in Oakland County, circa 1816

Waterford's First Railroad Depot (Photo Courtesy of the Waterford Historical Society)

After the development of steam-powered rail transportation, a section of the Detroit and Milwaukee Railroad was built parallel to the Saginaw Trail in 1842. The location of the railroad line continued to concentrate human settlement in this area of the Township until the advent of the automobile. This freight rail line, now owned by the Canadian National Railroad, is still active. The railroad's impact on the surrounding environment has been minimized since there is little new development dependent on rail transport.

Waterford's geography has had a major impact on the Township's road system. Because of the numerous lakes, the traditional grid road system was not feasible. Most of the secondary road system meanders, with no existing single road to directly access sections of the Township in a north-south direction. Waterford's landscape does possess three principal regional highways through the Township, all of which serve as the Township's primary commercial corridors. Dixie Highway (U.S. 10) follows the original route of the Saginaw Trail, passing diagonally across the northeastern portion of the Township from the border with the City of Pontiac in a northwesterly direction to the border with Independence Township. Telegraph Road (U.S. 24) forms the principal eastern boundary with Pontiac and serves as the gateway into the Oakland County government complex. Highland Road (M-59) traverses the center of the Township in an east-west direction and is the gateway to the Oakland County International Airport. These three principal regional highways also serve as Waterford's primary access to the region's major interstate highways, I-75, I-96, I-696, US-10 and US-23.

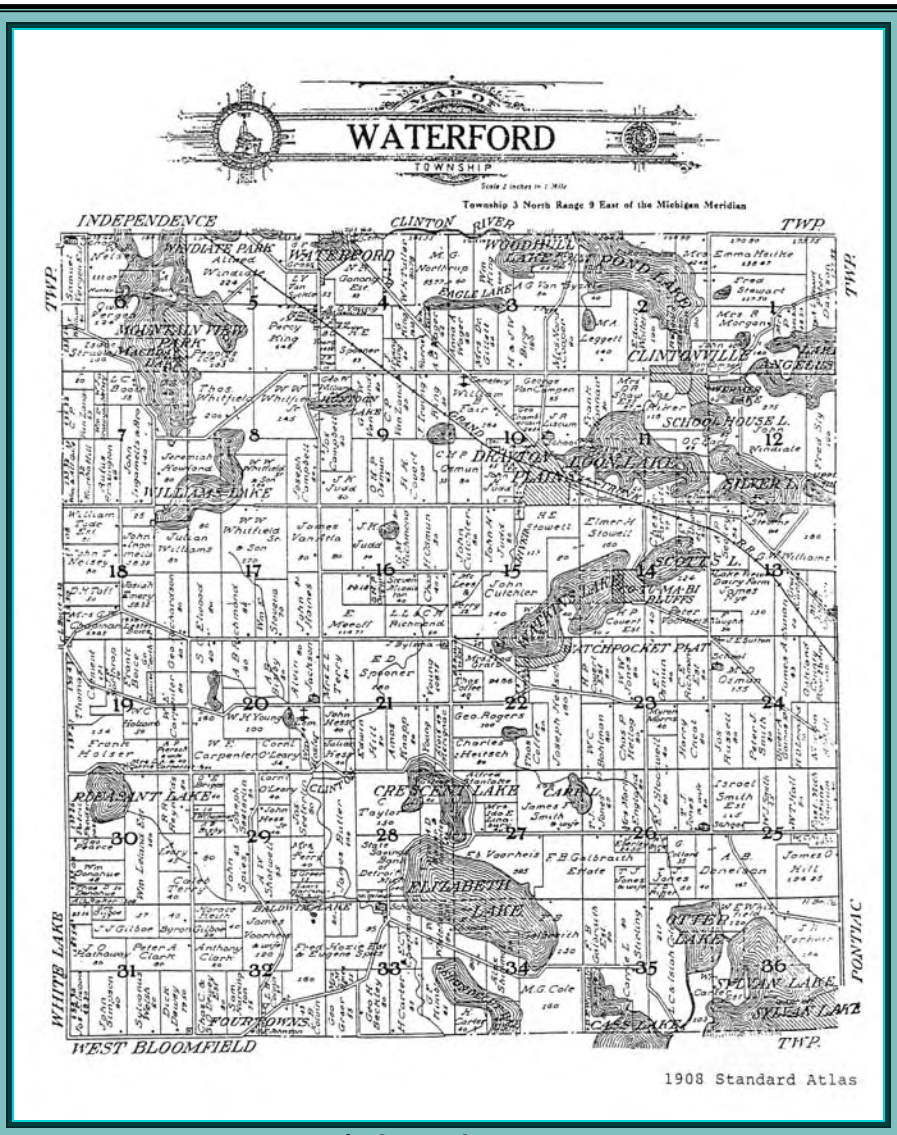
In addition, the region's premier general aviation facility, the Oakland County International Airport, is located on M-59 in the western portion of the Township. This airport opened in 1928 and is Michigan's second busiest airport based on take-offs and landings. The Airport continues to

influence land use and the geographic features of the Township. Land uses affiliated with an airport use, the height of buildings throughout the Township, the location of residential properties, maintenance of clear zones along runway paths, and traffic patterns will continue to be affected by airport operations.

HISTORY

Waterford, organized as a Township in 1835, is nicknamed the "Lakeland Paradise".[1] It has grown from a wilderness settlement of two families in 1819 to an urban community of 73,150 persons in 2000.

When the first white settlers came to the area, the Shiawassee and Saginaw Indian tribes inhabited the wooded countryside. Chief Pontiac, for whom the City of Pontiac was named, was the area leader of the local Native American tribe. While numerous other tribes hunted in this area, there is no evidence that any tribe made Waterford their year-round residence. Historians suggest this may have been due to the large areas of lowlands and wetlands.



Waterford Township, circa 1908

[1] *Samual W. Durant, History of Oakland County, 1817-1877 (E. H. Everts and Company, Philadelphia, Pennsylvania, 1877).*

Waterford Village, 1910 (Photo by John Green, courtesy of Waterford Historical Society)

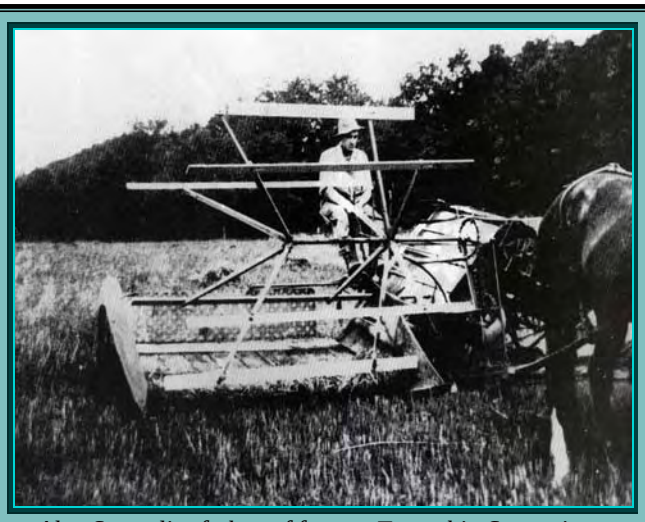
Among the first settlers who came to Waterford were two unrelated families named Williams. Major Oliver Williams, his wife and family of eight children journeyed up the Saginaw Trail from Detroit, taking two days and one night for the trip. In March 1819, they built a log house on the banks of what is now Silver Lake. Also in 1819, Alpheus Williams settled his family in the area where the Saginaw Trail crossed the Clinton River, as did Archibald Phillips. This site developed into Waterford Village, which is now a designated historic district in the Township *(please refer to Map 10 on Page 7-47)*. Records show that the Williams families each paid $2.00 an acre for their land. The first school classes in Waterford were held in 1821 in an old sheep shed on the farm of Oliver Williams. In 1822, a schoolhouse was built and 12 pupils attended their first classes. The second school was built in 1828 and was also used for town meetings, church services and recreation programs for the early pioneers.

In 1834, two other village areas developed within the Township. One settlement named "Clintonville" developed around what is now the intersection of Walton Boulevard and Clintonville Road. Another, named "Drayton Plains", developed around the area of the Dixie Highway and Frembes Road intersection. All three areas became rival pioneer villages as rural community gathering places and shopping nodes, with a mix of general stores, shops, small factories, taverns, mills, hotels, post offices, and railroad stations to serve the local farming community and travelers throughout the area. The last surviving structure from this pioneer village era is the general store that was known as Jacober's Store. This structure was located at the Andersonville Road and Dixie Highway intersection until it was moved to a permanent location at Greenfield Village.

Early map of the Clintonville area (Map courtesy of the Waterford Historical Society)

None of the three village areas ever incorporated, although the residents of the area maintained a strong identification with the old village area names. In fact, Drayton Plains maintained its post office designation into the early 1990s. The village areas remained unincorporated, serving as community activity centers and gathering places into the twentieth century.

The 1877 History of Oakland County states that "Waterford Township derived its name from the circumstance of its containing so large an area of water surface."[2] There is still some speculation as to how the Township came to be named Waterford. There was a ford across the Clinton River and some say that it was a result of this crossing that the area was named Waterford. The exact location of the river crossing is not known but it was either in the Drayton Plains area near the old hatchery ponds located at the Drayton Plains Nature Center, or at the point where the Saginaw Trail crossed the river in the Waterford Village area. The area named Drayton Plains was thought to be named after a mill Daniel Windiate owned when he lived in England.



Alec Seeterlin, father of former Township Supervisor James E. Seeterlin, operating his grain binder on his Lochaven Road Farm (Photo courtesy of the Waterford Historical Society)

After the initial settlements, people from widely scattered parts of the east and south of Michigan began to migrate to the Waterford area to begin new lives. Many of them traveled the Erie Canal from the eastern states, through Detroit, and into Waterford via the Saginaw Trail and eventually by railroad. After the Civil War, Waterford Township experienced a small growth spurt due to government land grants to war veterans. Large farms predominated throughout the 35 square miles within the Township. The Township's population grew to around 400 people by 1870.

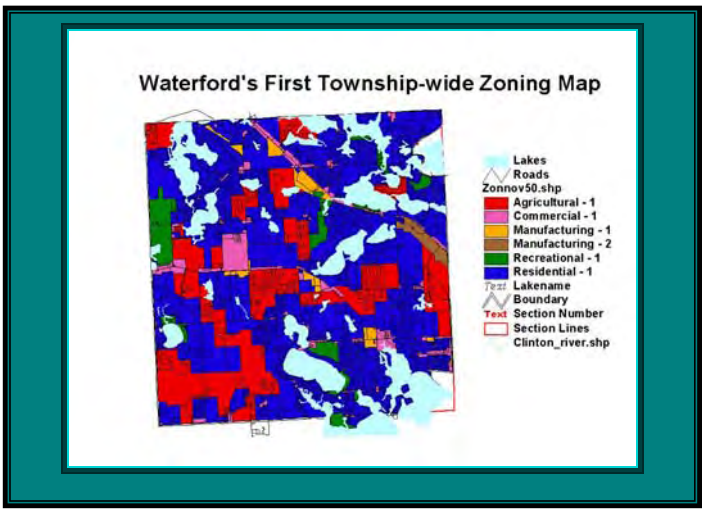
By the 1920s, the population of Detroit and Pontiac had increased dramatically as people migrated to both cities for jobs in the new automobile industry. This migration had a long-term effect on Waterford. Initially, the railroad between Detroit and Pontiac made it possible for the auto workers in Detroit to travel up to the lakes area, use their growing income to purchase land to build summer cottages on the many lakes, and then commute with their families during the summer months. As automobiles became more affordable to workers and reliable road systems were built to handle the growth in traffic, workers found it easier to consider year-round lake living while making a daily commute to their factory jobs. This impact on Waterford can be shown in the doubling of the population every ten years between 1930 and 1960. The population went from 7,942 in 1930; to 12,019 in 1940, to 24,275 in 1950; to 47,008 in 1960.

Cottages on Van Norman Lake (Photo courtesy of the Waterford Historical Society)

[2] *Durant, History of Oakland County, 1877*

By 1941, the population growth prompted Waterford's elected officials to hold their first zoning effort, which, as with many communities, preceded the adoption of a formal Master Plan. In January 1941, a building zone ordinance was passed for the Elizabeth Lake Estates area. This early zoning effort established four zoning classifications, Residential-1 through-3 and Commercial-1. Each zoning classification set standards for rear, front, and side yard size, height, lot area, building area, and building size. The residential minimum lot sizes ranged from 7,500 square feet to 15,000 square feet. Also in 1941, Waterford opened a new Township Hall at the corner of M-59 and Crescent Lake Road. At the time, this Township complex was large enough to house all of the Township personnel.

It was not until November 1950 that the first Township-wide Zoning Ordinance was passed. Under the 1950 Zoning Ordinance, six zoning district classifications were established, Residential-1, Commercial-1, Manufacturing-1, Manufacturing-2, Agricultural-1, and Recreation-1. In April 1952, Waterford adopted its first Building Code.



In the early 1960s, Waterford continued to strengthen its ability to guide the growth of the community. The Township decided to take advantage of the additional authority and powers to perform desired governmental duties under the Charter Township Act by becoming a Charter Township in 1961. In 1963, the Township Board established Ordinance Number 45, a new Zoning Ordinance which included eleven (11) zoning districts. There were now provisions for two agricultural districts, two single-family residential districts, two multiple-family residential districts, two industrial districts, two recreational districts, and one parking district. The minimum lot sizes for residential use ranged between 9,100 square feet to 12,000 square feet. There was a one-acre minimum for the dwindling agricultural uses in the Township.

Because of the conversion of Waterford from an agricultural community into a bedroom residential community, by the early 1960s there was commensurate growth in commercial development along the major roads. Between 1958 and 1962, the number of retail establishments nearly doubled, from 256 to 436. Twenty-eight percent of this increase was due to the construction of the Pontiac Mall, which is now known as the Summit Place Mall and soon to be renamed the Festivals of Waterford. In order to attempt to plan for the continuation of this growth, the Township took advantage of the federal Urban Planning Assistance Grant funding to prepare its first Master Plan. Five volumes of background planning studies were published in 1963 and 1964. Waterford's first Comprehensive Development Plan was published in April 1965. The Plan envisioned a community consisting primarily of single-family residential, several areas of low-density multiple housing, four small areas devoted to high-density multiple housing, commercial designations located in the Pontiac Mall area, along Elizabeth Lake Road, and in the Union Lake, Waterford Village, Drayton Plains, and Clintonville areas. Industrial areas were shown in the center of the Township and along Dixie Highway. Research industry and office spaces were clustered around the Airport. This Plan also envisioned road improvements, construction of Township water and sewer systems, a new Township Hall, fire stations, a parks and recreation building, construction of sidewalks, and acquisition of property for cemeteries and parkland. At the time the Plan was approved, there were 805 acres of parkland in the Township with an additional 533 acres proposed for acquisition to meet future recreation needs.

In December 1968, Waterford produced its first and only Capital Improvements Program. The Program identified several capital needs for the growing Township. The existing Township Hall, Police Building, and Fire Stations were deemed inadequate and identified for replacement. There was a need for additional fire stations and library space. A new Water and Sewer building and garage had been built in 1964 on the current Civic Center site, located off of Crescent Lake Road north of M-59, to accommodate the staff and equipment needed to operate and maintain the expansion of the Township's water system. A new library building was also built on the Civic Center site in 1965. A Sanitary Sewer Master Plan was adopted in 1965 to implement a Township-wide sanitary sewer system to protect the hydrological environment from the tremendous growth in septic systems that followed the population and housing expansions.

By 1970, the Township population had grown another 26 percent, to 59,123 persons. The community continued to grow as a bedroom community. Multiple housing did grow to occupy 270 acres of land by the mid 1970s. The commercial corridors continued to develop without the formation of a central business district. Growth appeared to occur in a haphazard fashion. Commercial growth did occur at a slower pace due to the national economic instability occurring throughout the nation and the Detroit metropolitan region during the 1970s. Industrial development remained a minor factor in the Township's economic base, occupying only 205 acres of land compared to 670 acres for commercial. In 1975, an update to the 1965 Master Plan was adopted. This Plan provided an emphasis on several important goals: (1) Preserving the residential character of the community while taking full advantage of Waterford's lakeland geography; (2) Encouraging optimum commercial development along the three major highways; (3) Encouraging more industrial development; (4) Acquiring more parkland; and (5) The development of a thoroughfare plan to allow safe movement of both pedestrians and vehicles. No major changes to the future land use map or to the Zoning Ordinance were made at that time.

Significant funding sources became available for physical developments in Waterford during the 1970s. In 1975, Waterford began receiving annual Community Development Block Grant (CDBG) funds from the U.S. Department of Housing and Urban Development. The CDBG funds were used for housing rehabilitation and a variety of public improvement projects such as storm drainage, street paving, and sidewalk installation. CDBG funds were also used to acquire and rehabilitate an historic church in the Waterford Village area, which was established by the Township Board as Waterford's official Historic District in 1977. This facility was then used as office space for the Parks and Recreation Department. Waterford took advantage of new state legislation to establish an Economic Development Corporation, an appointed body able to place full faith and credit behind the issuance of industrial revenue bonds to attract industrial companies to the Township. In the mid-1970s, a Township-wide bikepath plan was developed and a millage passed to fund the implementation of the plan. At the height of the energy crisis in the late 1970s, Waterford received federal energy grant funds that were used to fund the construction of a new three-story Township Hall building in the Civic Center complex. The Township government offices moved to the new building in 1979. The old Township Hall became the main headquarters of the Police and Fire Departments.

Between 1970 and l980, the Township's population increased an additional 8.7 percent, to 64,250 persons. Multiple housing more than doubled the amount of land it occupied, growing from 270 acres in 1974 to 584 acres in 1989. Besides the tough economic times that began in the 1970s and continued into the mid-1980s, another important factor in the slowing population growth was the reduction in household size that was occurring throughout the country. In Waterford, the average household size declined from 3.50 persons per household in 1970 to 2.86 persons in 1980. In spite of the tough economic times of the early 1980s, commercial land use expanded from 670 acres in the mid 1970s to 1,238 acres at the end of the 1980s. During the same time, industrial land use expanded from 205 acres to 433 acres.

In August 1981, the Township Board adopted Ordinance Number 135, a new Zoning Ordinance to replace the one adopted in 1963. Overall, the format and content of the new Ordinance was nearly identical to the former Ordinance and was meant to consolidate the eighteen years of revisions to the old Ordinance. There were three major changes. First, acknowledging the demise of agricultural Waterford, the two agricultural land use districts were eliminated and replaced by a district named "Suburban Farm", which allowed for large parcel single-family residential with the remnants of agricultural pursuits. Second, an additional residential district for the construction of duplex housing units was established. Finally, an industrial/technical office district was established.

By the late 1980s, vocal groups of citizens expressed concerns for growth and the effects on the natural environment of the Township. These groups called for the Township Board to establish a moratorium on multiple housing and raised concerns about the protection of the Township's wetlands and woodlands. The moratorium failed due to legal issues, but the Township responded by adopting ordinances to regulate wetlands and woodlands.

The efforts for better environmental quality continued into the early 1990s as the Planning Commission developed a new Master Plan. The 1991 Master Plan reflected the environmental awareness of the citizens by including the protection of wetlands and groundwater as priority goals. The Plan, like its predecessor, envisioned a community consisting primarily of single-family residential. There were substantially more areas of multiple housing shown on this Master Plan map. Commercial land use expanded along the length of M-59, Telegraph Road, and Dixie Highway. Industrial remained nearly identical on both maps. Research industry uses nearly disappeared from the map and office land uses were scattered throughout the Township.

The concerns over growth occurred at a time when the Township experienced the lowest rate of population growth in its history. In 1990, there was a 3.8 percent growth in population, to 66,692 persons. During the 1990s, over 38 percent of the developed land was devoted to single family housing. The concerns over growth of multiple housing in the Township appeared to have a negative effect on the continued development in the 1990s since only 97 additional acres were developed as multiple housing. The average household size continued to decline, to 2.59 persons per household. Commercial land use remained relatively static, using approximately 1,200 acres by the end of the 1990s. During the 1990s, industrial land use increased slightly to nearly 500 acres. The Township began the 1990s with the failure to pass a millage necessary to fund the construction of a community recreation center. The decade ended with an expanded central library building and plans for the construction of three new buildings to house the Fire Department, Police Department, and Department of Public Works.

The year 2000 saw the population of the Township increase by 9.7 percent, to 73,150 persons. The average household size declined again, this time to 2.42 persons per household. The development phase of the Township was nearing its end, with over 92 percent of the land being developed. As it looks to its future, the Township must now face the challenges of redevelopment, economic development, and quality of life issues. The Planning Commission began the current Master Plan process to guide Waterford to successfully meet these new challenges and continue the progress that has guided Waterford throughout its history.

CHAPTER 4 - ORGANIZATION OF WATERFORD PLANNING AND ZONING

BOARDS AND COMMISSIONS

The Township has a number of official bodies associated with the planning and development of the Township. A brief description of each body and its function in relation to planning is provided.

Township Board

The Township Board is the legislative body of the Township and consists of the Supervisor, Clerk, Treasurer, and four Trustees. All Board members are elected to four-year terms. The Township Supervisor recommends, and the Township Board appoints, individuals to serve on the Planning Commission, Zoning Board of Appeals, Economic Development Corporation, CDBG Citizen Advisory Committee, Parks and Recreation Board, and Library Board. By ordinance, the Township Board gives final approval to all plan approval use and hardship planned unit development requests and certain specified special approval uses. By State statute, the Board also approves rezoning requests, Zoning Ordinance amendments, and subdivision plats.

Planning Commission

In accordance with State zoning and planning enabling statutes, the Township has established a nine member Planning Commission. These members are appointed by the Township Board to serve 3-year staggered terms. One member must be a member of the Township Board. The Planning Commission's primary responsibility is to adopt, oversee, and keep current the Township Master Plan. The Commission reviews and makes recommendations to the Township Board on all subdivision plats, Zoning Ordinance amendments, plan approval use requests, and rezoning requests. The Planning Commission is responsible for considering and granting special approval uses. Final approval of major site plan reviews rests with the Planning Commission. The Planning Commission may be asked by the Township Board to study general ordinances and other issues of concern to the planning and development of the Township.

Zoning Board of Appeals

The Zoning Board of Appeals (ZBA) consists of five (5) members appointed by the Township Board for 3-year staggered terms. One member must be a member of the Planning Commission and one other member may be a member of the Township Board. The ZBA members serve to interpret provisions of the Zoning Ordinance when requested and determine when variances should be granted due to claims of practical difficulties in complying with non-use property regulations.

Economic Development Corporation

The Economic Development Corporation (EDC) is a self-governing unit with nine members elected to serve staggered six-year terms. For those companies interested in locating their facilities in Waterford, the EDC is responsible for reviewing applications for low rate financing and other incentives available from the Township. The Waterford Township EDC also acts as the Township's Brownfield Redevelopment Authority. The EDC investigates ways in which to improve the economic climate in Waterford and may provide advice to the Township Board and Planning Commission on economic development matters. Currently, the EDC receives its

funding from fees generated by the sale of industrial revenue bonds. As required by State statute, the annual EDC budget is subject to the approval of the Township Board.

CDBG Citizen Advisory Committee

The Planning Commission and other citizen members act as the Community Development Block Grant (CDBG) Citizen Advisory Committee (CAC) to assist the Community Planning and Development Director in reviewing project proposals submitted for CDBG funding. The CAC also makes recommendations for the proposed annual CDBG program budget.

Parks and Recreation Board

The Parks and Recreation Board is responsible for assisting the Parks and Recreation Director in establishing long-range planning and goal-setting for the Township's parks and recreation facilities.

Wetlands Board

The Planning Commission also serves as the Wetlands Board for the Township. Given the large number of lakes within our community which are connected to the Clinton River corridor, preservation and protection of these natural features is a primary concern. This board reviews applications for projects proposed within protected wetland areas.

Waterford Township Library Board

The Waterford Township Library Board is responsible for assisting the Library Director in establishing long-range planning and goal setting for the Township library facilities.

ADMINISTRATION

The Township functions pertaining to zoning, planning, community development, and economic development are spread among a number of the elected and appointed officials, as well as township staff. Administrative and coordination functions are divided as follows.

Supervisor

As the chief administrative official, all departments responsible for Township zoning, planning, community development, and economic development report to the Supervisor. The Supervisor selects board and commission candidates for appointment by the Township Board; responds to general questions and concerns from the public; and represents the Township in various county and regional functions. The Supervisor has historically been a voting member of the Economic Development Corporation.

Clerk

Keeps official records for the Township Board; keeps the official Ordinance Book which contains all of the duly adopted ordinances of the Township; processes approved rezoning requests to Oakland County; and responds to general questions from public. All legal notices for the Township are published in the Clerk's name.

Treasurer

Receives and takes charge of all Community Development Block Grant and Economic Development Corporation funds and responds to general questions from the public.

Community Planning and Development Director

Responsible for the implementation and daily administration of all planning, zoning, community development, economic development, and code enforcement activities. Responsible as the Chief Zoning Administrative Official for the enforcement of the Township Zoning Ordinance. Provides administrative and staff services to the Planning Commission, Zoning Board of Appeals, Economic Development Corporation, and CDBG Citizen Advisory Committee. Oversees staff processing of site plans, rezoning and plan approval use applications, subdivisions, site condominiums, and special land use applications. Responds to questions from applicants and the public regarding the Township's planning and development processes.

Building and Engineering Director

Responsible for the implementation and daily administration of all building and engineering activities. Responsible as the Chief Building Official for the enforcement of the Township's Building and Property Maintenance Codes. Shares some duties of the Zoning Administrative Official as they relate to building and engineering issues. Provides staff services to the Planning Commission and Zoning Board of Appeals. Oversees building plan review, engineering review of site plans, and plumbing, mechanical, electrical, building, and engineering inspection services.

The Township also employs engineering, planning, and legal services on a consulting basis to achieve its planning and development goals.

Information Systems Director

Responsible for developing, maintaining, and enhancing the electronic information infrastructure used to process, disseminate, and store the Township's planning and zoning documents. This infrastructure includes the Township-wide computer network, geographic information system, internet web site, and electronic document management system. Provides guidance and advice on improvements to departmental electronic information processing and storage. Oversees

information systems components to ensure consistency, reliability, and effective service to the departments and citizens.

GIS Manager

Responsible for creating, managing and implementing a Township-wide Geographic Information System (GIS), a digital database that is linked to real geographic areas within Waterford. Works with various departments to identify GIS needs and potential applications. Oversees the research and collection of information to build GIS information layers. Oversees GIS staff in the compilation and entry of data, and responds to requests for GIS training and output.

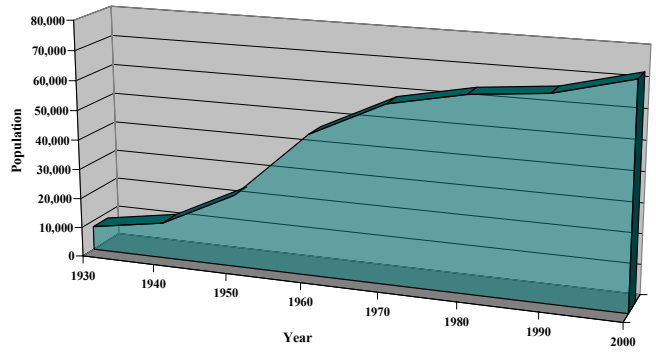
CHAPTER 5 - BACKGROUND STUDIES SUMMARY

The Background Studies portion of the Master Plan inventories and analyzes the past trends and current conditions of Waterford's physical, economic, and demographic characteristics. These Studies complement the work on each topic area reviewed by the Master Plan Subcommittees, a synopsis of the Subcommittee work can be found in Chapter 7. The informational foundation of the Future Land Use Plan presented in Chapter 8 is provided through the Background Studies. The following summarizes the significant points and findings of each of the subject areas covered in detail in the Background Studies. The complete Master Plan Background Studies are incorporated into three appendices: Appendix A - Background Studies, Appendix L - Traffic Analysis, and Appendix M - Capital Facilities Analysis.

POPULATION

During the ten year period between 1990 and 2000, the U.S. Census Bureau recorded that Waterford Township's population experienced an increase of 9.7 percent, from 66,692 persons in 1990 to 73,150 in 2000. As shown in Figure 5-1 below, this is a continuation of a long-term trend of population increases during the past 70 years. The Southeast Michigan Council of Governments (SEMCOG) forecasts that the Township's population in 2020 will be 72,602, a decrease of 0.75 percent from the current 2000 population. While the average persons per household size declined from the 1990 figure of 2.59 to that of 2.42 in 2000, Waterford does not agree with SEMCOG's projection that this figure will decline even more drastically to 2.20 by 2020. Waterford's disagreement with SEMCOG's projection is based on the geographic location of the Township, the comparison with the population estimates of surrounding communities, the anticipated continuation of the trend of housing affordability for families, and projected redevelopment efforts. This issue is explained in detail in Appendix A.

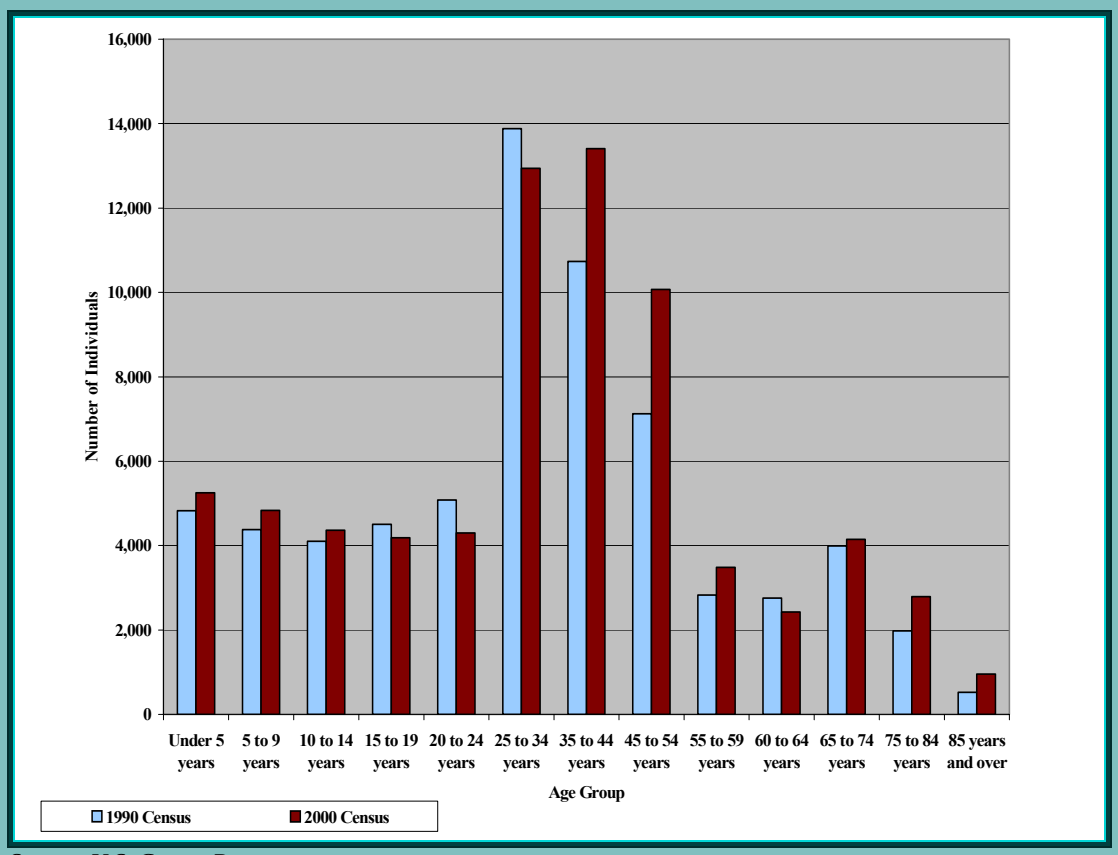
Figure 5-1 Population of Waterford 1930-2000



Source: U.S. Census Bureau

The median age of Waterford residents in 2000 was 35.5 years. The U.S. Census in 2000 shows approximately 67 percent of the population is under the age of 44 and 14 percent of the population is over the age of 60. The number of people under the age of 19 years grew slightly, from 17,803 in 1990 to 18,634 in 2000. This under 19 age group consists of over 25 percent of the total 2000 population. The total number of households in 2000 was 29,387, an increase of 3,911 from 1990. There are 9,614 households with individuals under 18 years of age, up from 8,949 households in 1990. There are also 5,656 households with individuals 65 years of age or older, which is a slight increase from the 1990 Census count of 4,786 households. As shown in Figure 5-2 below, the population's age distribution and median age suggest a community composed largely of young persons and families with children, but also with a strong core of senior citizens.

Figure 5-2 Distribution of Waterford Population by Age Group



Source: U.S. Census Bureau

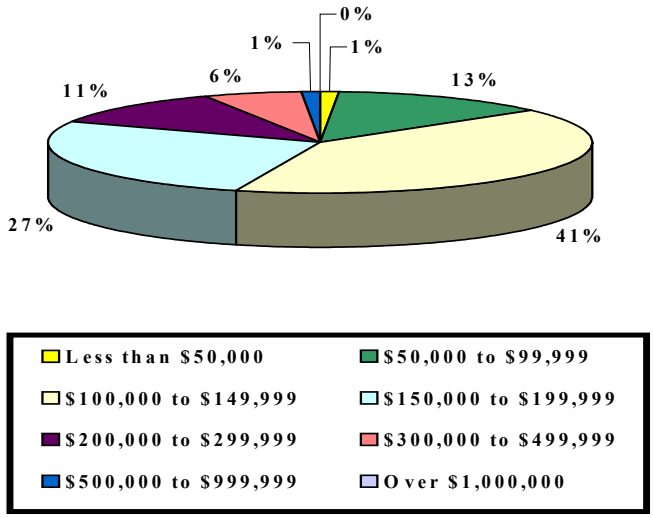
The 1999 estimated median household income of $55,008 reflects a relatively middle income community. Another reflection of the Township's senior population is the 22 percent of the households shown receiving Social Security income and 19.6 percent receiving retirement income. The percentage of the Township's population living below poverty level remains around 5 percent of the total population, with 3,658 individuals, up from 3,522 individuals in 1990. The level of education of Township residents appears to be rising. In 2000, nearly 57 percent of all Township residents had some college education or a degree, up from 47 percent in 1990.

HOUSING

According to the 2000 Census, Waterford has 30,404 housing units, approximately a 15 percent increase since 1990. Nearly 97 percent of the total housing units are occupied. Owner-occupied, single-family residential units are the predominant housing types in the Township with 76 percent, or 22,428 units, of the total occupied housing stock. Vacancy rates are extremely low, with less than one percent for owner-occupied units and a 4.6 percent rental unit vacancy rate. The Township's housing stock is evenly divided in age, 53 percent is thirty years or older and 47 percent is less than thirty years old.

The cost of a single-family home in Waterford Township has risen substantially. The desirability of living in Waterford is reflected in the increase in the average sales price. Measuring in 2000 dollars, there was a 48.7 percent increase in the average value, going from $97,100 in 1990 to $144,400 in 2000. This increase in value, which may be attributable in part to Waterford's quality of life, may also be partially reflective of the construction of new, more expensive housing and escalating real estate costs throughout the southeast Michigan region. However, over half of Waterford's housing stock remains in the lower middle class affordability range, as shown in Figure 5-3 below.

Figure 5-3 Distribution of 2000 Housing Values in Waterford Township



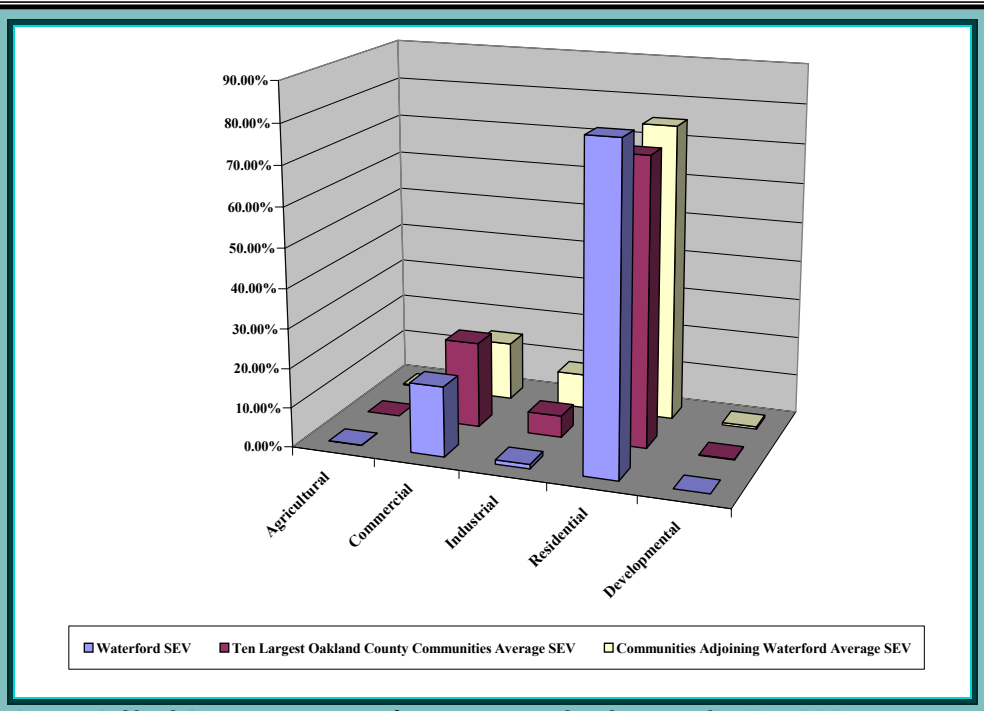
Source: U.S. Census Bureau

ECONOMIC BASE

Waterford is the geographic center of Oakland County, located approximately an hour from downtown Detroit, ten minutes from Pontiac, and 30 minutes from Flint. The three regional highways provide ready accessibility to the major population and employment centers of southeastern Michigan. The Oakland County International Airport provides easy aviation access to major businesses with national and international operations, particularly those located in the Automation Alley corridor. Oakland County, as a whole, has experienced strong economic growth, job creation, and an overall healthy economy, and this trend is expected to continue. The mean travel time to work is 28.9 minutes, up from 24.3 minutes in 1990, indicating that most residents are employed outside of the Township.

The state equalized value (SEV) for real property in Waterford Township has steadily increased during the past ten years. In Waterford, residential use of real property provides 81 percent of the total SEV, commercial use of property is nearly 18 percent, industrial use of property is a little more than one percent, and agricultural use less than one percent. The distribution of Waterford's SEV among the different use classifications is comparable to the average SEV of the ten largest communities in Oakland County and to the average SEV of the communities adjoining Waterford, as is shown in Figure 5-4 below. However, Waterford does rely on residential use for a larger percentage of its total SEV as its tax base than either the average for the largest or the adjoining communities. Industrial use is relied upon less in Waterford for its SEV than either of the averages for the largest and adjoining communities, whereas Waterford's reliance on commercial use for SEV falls in between the respective average percentages shown for the largest Oakland County communities and those communities adjoining Waterford.

Figure 5-4 Distribution of SEV Among Use Classifications (As Percent of Total)



Source: Oakland County Department of Management and Budget, Equalization Division

Waterford possesses two major focal areas that serve as regional destinations. One area is the Oakland County International Airport (OCIA). The OCIA provides ready access to general aviation service for the businesses and corporations located throughout Oakland County, and particularly along the Automation Alley corridor. Currently, little to none of the properties surrounding the OCIA on the main thoroughfares have been utilized to take advantage of the airport's proximity and its use by the corporations located in Automation Alley to provide related commercial and office uses.

The other regional destination area is located at Telegraph Road and Elizabeth Lake Road. This area has traditionally been a regional shopping mall known as the Pontiac Mall and subsequently as the Summit Place Mall. Factors such as the construction of the Great Lakes Crossing Mall in nearby Auburn Hills and the growth of internet retail purchasing has weakened the vitality of the regional retail component of the Telegraph Road/Elizabeth Lake Road area, creating a surplus of commercial retail space.

Many of the existing commercial uses within Waterford are concentrated along the Township's major commercial corridors of M-59, Dixie Highway, and Telegraph Road. These uses range from small, single-use storefront areas to contemporary shopping centers. The retail, office, and service uses located along Waterford's commercial corridors have served both comparison and convenience shopping needs for residents of Waterford and surrounding communities. Due to the anticipated slowing of population growth in Waterford, the achievement of virtual development buildout, and changes in the retail sector of the economy, no major commercial expansion in Waterford is anticipated during the next twenty years. Instead, an emphasis on redevelopment and changing patterns of commercial uses is anticipated during this time period.

Industrial uses in Waterford have remained relatively static over the past fourteen years, growing from 433 acres in 1989 to 492 acres in 2002. Industrial uses are not anticipated to expand beyond the current total acreage. Instead, it is anticipated that industrial redevelopment will occur during the next twenty years. A review of older industrial uses indicates a high incidence of site utilization. Few, if any, amenities are provided and, in some cases, off-street parking and loading are seriously lacking. Obviously, such uses create an environment that is less than attractive and discourage more desirable development. Some of these uses may also have created a problem in terms of site pollution. In view of Waterford's efforts for economic development and mandatory concern for water quality, consideration should be given to the creation of a systematic program of site inspections as well as a continuation of the Township's brownfield redevelopment efforts.

COMMUNITY FACILITIES AND SERVICES

Community facilities include the various buildings, sites and services that are involved in running a government and providing necessary services to its residents. Some of these facilities are involved in daily administrative activities that are less visible to the public. Others, such as police, fire, water and sewer, libraries, electronic information systems, recreation, and public services, are more familiar. These facilities are Township-owned and operated.

Waterford Township Hall was built in 1979 and is the focal point of the Township Civic Center. This facility houses the offices of the three elected officials of Waterford, the Township Supervisor, the Township Clerk, and the Township Treasurer. The Township Hall facility also houses the administrative offices of the Assessing, Fiscal and Human Resources, Information Systems, Building and Engineering, and Community Planning and Development Departments. An auditorium and conference rooms are also contained within the facility for official Board and Commission meetings, as well as for administrative and public meeting purposes. There is reasonable room for office growth within the building without costly modifications or additions.

The use of contemporary modular office units has increased the capacity for additional office space for staff. While the use of electronic information system technology provides the potential for some relief from document storage space requirements, the Township still requires substantial physical space for the physical storage of documents required by the State of Michigan. The need for physical storage space appears to be the most pressing need for additional building space during the next twenty years.

Police protection of Waterford citizens is provided by a full-time Township Police Department housed in a new Police Headquarters building constructed in 2001. The Township police force is overseen by a full-time command structure headed by the Police Chief and two Deputy Chiefs, and is currently staffed by 90 sworn officers and 26 civilian support staff. In addition to patrol duties, Waterford officers staff several specialized units including a Special Response Team, Motor Unit, Honor Guard, and K9 Unit. The typical patrol structure is to provide 24-hour patrols of the Township. Over the past ten years, the Police Department has answered an average of 47,500 calls per year. Currently, the Police Department operates with a staffing budget ratio of 1.37 officers per 1,000 residents. Because the Police Headquarters is new and built with future staff needs in mind, there is no anticipated additional building needs during the next twenty years.

Fire protection and emergency medical services are provided by a full-time, on-call Fire Department overseen by a full-time command structure headed by the Fire Chief and one Deputy Chief, and staffed by 54 employees. There are five fire station buildings positioned throughout the Township. Each station is strategically located to facilitate the shortest possible response time to any emergency anywhere in the Township. The Fire Department Headquarters and Fire Station Number 1 are housed in a new building constructed in 2000. Of the four other fire station buildings, Fire Station Number 2 is over 50 years old, Fire Station Number 3 is 14 years old, Fire Station Number 4 is 28 years old, and Fire Station Number 5 is 24 years old. Boundary lines have been drawn dividing the Township into five sectors based on geographic location, travel distances, and traffic conditions proximate to each fire station. When an emergency arises, trucks and personnel are dispatched from the closest fire station ensuring the fastest possible response time. The average response time of the Waterford Fire Department to an emergency call is four minutes. Only two stations currently staff paramedics and advanced life support vehicles. In August 2002, Waterford Township voters approved a millage to fund the expansion of paramedic services into a third station. During the next twenty years, it is anticipated that the Fire Station Number 2 building should be replaced due to its age, and plans for the eventual replacement of Fire Station Number 4 and Number 5 buildings should be drawn up and funds obtained due to the age of these buildings at the end of the twenty-year Master Plan period. Two other factors anticipated to be monitored during the next twenty years are the level of emergency medical service needed to serve additional growth in the senior citizen population, as well as the need for funding and acquiring new fire and emergency vehicles as the current vehicles age and become less dependable.

Waterford Township's Department of Public Works (DPW) provides municipal water and sewer service through its Water and Sewer Division. The DPW provides high quality potable water for residential, commercial, and industrial use, including fire protection to nearly every area within the Township through the use of 15 wells, 10 sand filtration water treatment plants, and 3 storage tanks. The DPW Water and Sewer Division also provides for the safe and efficient collection and transport of all wastewater from properties connected to the sewer system through approximately 360 miles of sanitary sewer lines and 62 pumping stations. The DPW has taken full advantage of high technology to provide safe, efficient, and effective water and sewer service to Waterford citizens. The DPW administers, through its Facilities and Operations Division, the operations and maintenance services for all Township buildings and grounds,

Township vehicles, bike paths, composting site, and the five Township-run cemeteries. All of the DPW services are provided by the 60 full time DPW employees whose offices are housed in a new administrative building built in 2001. Because the DPW Building is new and built with future staffing and operational needs in mind, there are no anticipated additional building needs during the next twenty years. The DPW does possess sophisticated water- and sewer-modeling systems and forecasting tools to anticipate, plan, and fund capital water and sewer infrastructure improvements.

The Waterford Township Library system is comprised of a Main Library located on the Township Civic Center Campus, one Branch Library located in the CAI Building, and mini-branches at the Waterford Senior Center and several of the senior housing complexes located in the Township. In addition, the libraries at each of the Waterford School District school buildings have been integrated into the Library system under the direction of the Waterford Library Director. The combined Main Library and Branch Library collection totals 122,894 materials. The ratio of books per capita amounts to 1.7, as compared to a recommended ratio of two volumes per capita. Utilizing this latter standard, a total of 146,300 volumes need to be provided to adequately meet current needs. In addition, the total current shelving capacity only allows space for 96,800 volumes. The Main Library building was originally built in 1964, and was substantially expanded and renovated in 1995. Between 1995 and 2002, a portion of the Main Library building was occupied by the Township's Parks and Recreation Department. The Parks and Recreation Department was relocated in 2002, allowing for an expansion of the Main Library into this area of the building. Additionally, Waterford voters approved a renewal of the Library millage in August 2002. The millage will be used in part to fund a minor expansion of the Main Library to provide the additional needed space to meet current needs and allow for future growth. Another factor for future consideration is to plan and fund library space in a new community center to replace shelving space lost in the event of the sale of the CAI Building which would occur after the construction of a new community center.

Waterford Township has actively invested in the development and implementation of high technology electronic information systems. The Township has developed and utilizes a Township-wide computer network and geographic information system (GIS). An electronic document management and workflow system is also being implemented and utilized on a department by department basis. The Township has also developed and maintains an active Township website to provide citizens access to information about, and communication with, their local government. The Township continues to invest in the infrastructure, equipment, software, and staffing to maintain its electronic information systems at current standards.

RECREATION AND OPEN SPACE

Waterford Township enjoys an abundant mixture of public and private recreational facilities in addition to the recreational attraction of Waterford's 34 lakes and the Clinton River. Three governmental park systems own and operate park facilities within the Township: Waterford Township Parks and Recreation, Oakland County Parks, and the State of Michigan Department of Natural Resources. The Drayton Plains Nature Center, currently operated by a private non-profit organization, is located on 137 acres in the center of the Township and is open for Township residents to enjoy its natural beauty. The Township also contains two privately owned golf courses, open to the public, Pontiac Country Club and Silver Lake Golf Club. There has been no reduction in the supply of major State and County recreational facilities in the area. These existing State and County facilities remain important resources, particularly since it is extremely difficult for the majority of individual communities to support such large land preserves.

Recreational facilities owned by the Township amount to over 600 acres. Of this figure, some 165 acres are contained within Hess-Hathaway Park and 207 acres in Elizabeth Lake Woods Park. The remaining Township recreational acreage is composed of smaller neighborhood parks and playgrounds, playfields, and specialized small community parks. In addition to the Township parkland, the Waterford School District plays an important role in recreation functions, particularly in terms of neighborhood-type facilities. School sites serve as local area parks, playgrounds, and open space areas, and are focal points in many residential neighborhood areas. In total, the Waterford School District has over 400 acres of existing school facilities, of which nearly 59 acres assist in meeting neighborhood recreation needs. There are currently no indoor pool facilities in either the Township or School District systems for competitive or recreational swimming purposes. An effective means to address the need for indoor pool facilities in Waterford is anticipated through either a Township/School District joint effort to fund and construct at least one central indoor competitive/recreational pool facility as a phase of a new community center, or a coordinated effort by the School District to fund and construct a competitive swimming pool at each high school and the Township to fund and construct a recreational pool area as a phase of a new community center.

While the overall acreage a community has set aside for recreational uses is important, it is also important to distribute park space throughout the community. Waterford's existing park distribution per U.S. Census Tract ranges from a low of 0 acres to a high of 117 acres. Seven of the Township's 15 Census Tract areas do not meet the Michigan Department of Natural Resources standard of 10 acres of local park land per 1,000 residents.

There continues to be two separate senior center programs operating in the Township. The Waterford Senior Drop-In Center is operated through the Waterford School District and funded jointly by the School District and Township. The Township provides the other center at the CAI Building, offering arts, crafts, recreational, and social activities. Consolidation of these programs into a unified program operated out of a modern community center facility would eliminate this duplication of effort and provide greater efficiencies in serving Waterford's senior population.

At the present time, the Township's recreational and community service needs are served primarily through three outdated buildings needing frequent substantial repairs due to building age. The combined age of the buildings, the Monteith Center, CAI Building, and Andersonville Church, exceeds 200 years old. The Parks and Recreation staff offers over 100 programs for preschoolers to senior citizens as effectively as possible through these three buildings. Based upon these findings and observations, there appears to be a continuing need for a new community center facility. Usage of the building would ultimately include: administrative offices, a senior wing, a community center wing, community gym facilities, multi-purpose classrooms, kitchen and dining facilities, recreational pool facilities, and possibly competitive pool facilities. These needs must be coordinated into the planning process to acquire a site centrally located and large enough to adequately serve both current and future needs. From all indications, the need to provide for a range of recreational activities will continue to grow during the next twenty years.

DISTRICT COURT

The 51st District Court is housed in a building constructed specifically for the Court over 16 years ago on the Civic Center Campus. The District Court building is now linked to the new Police Headquarters building to provide secure transfer of prisoners from the jail cells in the Police building to the District Court. Although no further building needs are currently anticipated, there is room for expansion of this facility, if necessary during the next twenty years.

EDUCATIONAL SYSTEM

The educational needs of Waterford Township residents are primarily served through the Waterford School District. There is a small section of the Township along its eastern border served by the Pontiac School District and a small section of the Township along its northern border served by the Clarkston School District. Since the 1991 Master Plan was prepared, a continued decline in family sizes and birth rates have prompted the Waterford School District to reduce the number of elementary schools from 17 to 15. The number of middle schools remains at three and the number of high schools at two. The School District has also undertaken efforts to utilize some of its buildings for the education of target populations. There is one early childhood learning facility, one facility to address the District's special education needs, and two alternative high schools.

The School District still retains vacant sites in strategic locations to cover eventual needs. Overall, it appears that a degree of stabilization has been achieved regarding enrollments and trends indicate that no change is anticipated during the next 20 years. Today, all schools appear to be operating at enrollments somewhat below their maximum capacity. Based on these findings, it is not anticipated that site expansions or additions will be necessary to accommodate an increase in the student population. However, the School District continues to undertake a program of additions to existing school facilities to provide current computer and communication technologies to Waterford students, as well as modernized physical fitness facilities.

In addition to the public school system, there are several private elementary schools and one private high school, Our Lady of the Lakes, located within the Township. One of the campuses of Oakland Community College, the Highland Lakes Campus, is located in the southwest section of the Township.

TRANSPORTATION AND TRAFFIC

The Michigan Department of Transportation and the Road Commission for Oakland County share the responsibility for operating and maintaining all public roads in Waterford Township. In the Township, MDOT is responsible for the nearly 15 miles of three state highways, Dixie Highway, M-59, and Telegraph Road that run through the Township. All three state highways are five lanes through Waterford Township. Because of the way the commercial properties developed over the years, there are numerous access drives to these properties from the state highways. The combination of these multiple access drives, and the current use of the continuous left-turn lane as an acceleration lane, increase the risk of automobile collisions. An active access management and traffic calming implementation program would address the need to reduce the points of traffic conflict along the state highways.

The remaining 296 miles of the Township's public roads come under the jurisdiction of the Road Commission for Oakland County (RCOC). The Road Commission is currently working on implementing its FastTrac computerized signalization program throughout Waterford. The

FastTrac system is intended to provide an effective flow of traffic through a signal system sensitive to the amount of traffic traveling through each intersection.

There are also 46 miles of private roads that are maintained by the owners of the property abutting the roadway. Nearly all roads used as arterials are paved two to three-lane roads. Nearly all public roads within developments are also paved. There still are a small number of unpaved roads or road sections within the Township.

Several congestion points have been pinpointed which are caused by roadway design and railroad grade crossings. The major congestion points are caused by roadway design of three major arterial road intersections that are not aligned in the traditional intersection design. The three intersections are Williams Lake Road at M-59, Airport Road at Williams Lake Road, and Watkins Lake Road at Scott Lake Road. Plans are currently underway to implement the reconstruction of the Williams Lake Road at M-59 intersection, according to the traditional intersection design, within the next three years. There are currently no plans underway to implement the reconstruction of the other two intersections. There are also six points at which the Canadian National railway crosses at grade with major arterial roads: at Scott Lake Road, Watkins Lake Road, Hatchery Road, Frembes Road, Williams Lake Road, and Airport Road. There are currently no plans underway to implement the grade separation of roadway and railroad at any of the six listed intersection points.

There is no mass transit system that currently serves the general population of Waterford since the people of Waterford opted out of the SMART regional bus system in the mid-1990s. There is limited availability for van transport of senior citizens. There are currently no plans underway for Waterford to reenter the regional bus system, nor are there any current plans to investigate other means of mass transit.

There are 110 miles of sidewalks and 45 miles of bike paths in the Township. Substantial gaps still exist between segments of sidewalk and bikepath, reducing the effectiveness of nonmotorized transportation throughout the Township. For over a decade the Township has implemented a requirement that sidewalks must be installed as part of all new developments that are constructed.

The Oakland County International Airport (OCIA) is the region's primary general aviation airport and is the second busiest airport in Michigan (based on take-offs and landings). The OCIA now has a U.S. Customs office due to the increase in international business travel. The OCIA has actively worked to acquire funds to implement the recommendations for noise reduction and attenuation that were established in a noise study conducted by the OCIA over five years ago. Additional residential property has been acquired to remove these residences from the areas most affected by jet noise. The OCIA has also aggressively worked to obtain federal funds to construct a ground runup enclosure to significantly reduce the negative impact of one of the largest sources of jet noise, the revving of jet engines prior to takeoff. The OCIA will continue to be a busy corporate/general aviation airport serving Oakland County, the Detroit Metropolitan Area, and the region. The Airport is an important transportation facility; it is a center for aviation-related business and it supports and enhances regional economic development activity. No proposal is currently being considered that would bring scheduled commercial passenger service to OCIA.

The Canadian National Railroad line operates 31,000 feet of tracks located in the northeastern section of the Township. This railroad line is devoted to freight traffic and is not used for passenger rail service. Freight service is anticipated to continue on this railroad line for the foreseeable future.

ENVIRONMENT

Waterford's natural resources are numerous and are part of a rather complex ecosystem. Of prime concern are the surface waters that comprise nearly 25 percent of the Township's geographic area. Waterford's numerous lakes, streams, wetlands, and the Clinton River are part of the Clinton River watershed. Since Waterford is located near the headwaters of the watershed, Waterford possesses the potential to impact the water quality of communities within an approximate 330 square mile area. In addition, Waterford residents depend upon groundwater recharge for its well-based municipal water system. Waterford has adopted measures over the past twelve years to protect and improve water quality. Over twelve years ago, Waterford adopted a Wetlands Protection Ordinance. A Groundwater Protection Plan was implemented to accomplish one of the goals established by the 1991 Master Plan. The Township recently adopted a Wellhead Protection Plan. Efforts are also underway to develop a Stormwater Management Plan to comply with U.S. Environmental Protection Agency regulations in addition to beginning to address Township concerns about the management and control of stormwater runoff.

Currently, the Oakland County Drain Commissioner possesses the primary responsibility for monitoring, controlling, maintaining, and building storm drainage systems in Waterford. The Road Commission for Oakland County also is responsible for monitoring, controlling, maintaining, and building storm drainage systems connected with its road system. There are also natural drainage systems that the Drain Commissioner does not take responsibility for and that are not currently monitored or maintained by any governmental body. Development of a Stormwater Drainage Master Plan would help the Township identify the strengths and weaknesses in the existing stormwater drainage facilities and provide a significant planning and budgeting tool for the Township and other governmental agencies to reduce, if not eliminate, the current system's flaws and weaknesses.

Waterford Township still possesses a number of areas with woodlands, native landscape vegetation, threatened species, and unique natural features. During the past ten years, Waterford has established, within its Zoning Ordinance, regulations to assist with the preservation of woodlands and natural features. The Township is also working to ensure the full preservation of the Drayton Plains Nature Center property. Waterford is now also able to utilize the Michigan Natural Features Inventory for Oakland County Natural Resource Areas as a tool to assist in pinpointing the areas and natural features of the Township requiring protection.

Waterford Township remains committed to establishing all reasonable and necessary environmental protection standards and procedures. Additional and new environmental research and analyses will continue to be utilized by the Township, balancing the use of this information with the awareness that environmental issues deal primarily with private property. It is anticipated that developing reasonable environmental regulations promoting the public health, safety and welfare, and maintaining an ever-expanding database of environmental information combined with proactive education efforts will address the Township's need to protect its natural environment.

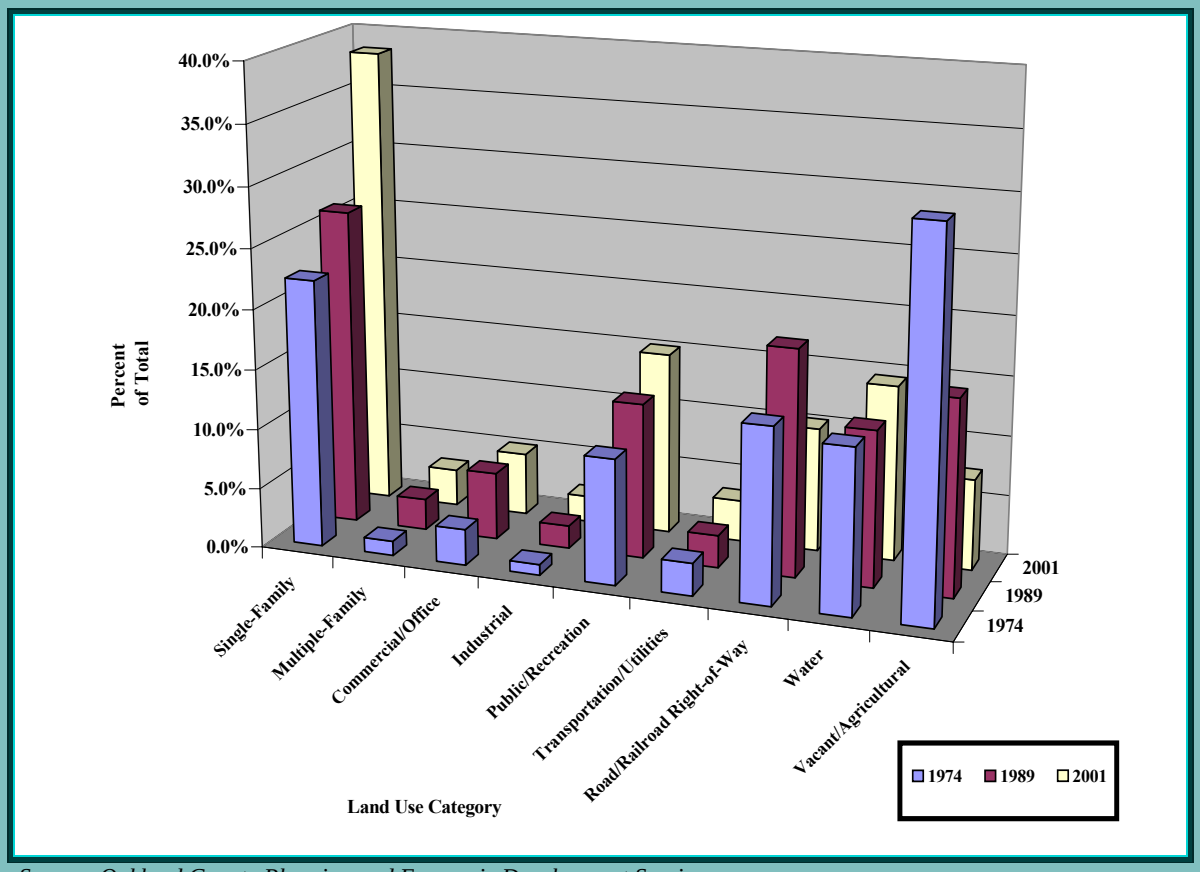
HISTORIC DISTRICT

The boundaries of the Waterford Village Historic District, and the establishment of a Historic District Commission to regulate the construction and alteration of structures located within the District, were established by an ordinance adopted by the Township Board on June 27, 1977. The location of the District is shown on Map 10 on page 7-45 in Chapter 7. The District boundaries adopted were not as comprehensive as those recommended by the Historic District Commission. The inclusion of the properties recommended by the Commission would have eliminated the piecemeal look to the established District boundaries. The ordinance adopted to govern the District has not been reviewed or updated in over 25 years. There has been little investment in such items as streetscape improvements to enhance the historic nature of the District. The Historic Commission remains relatively inactive, given that few financial resources are available to accomplish its mission. The District also experiences a serious traffic pass-through problem, particularly by semi-trucks traveling to Dixie Highway.

EXISTING LAND USE

The Township has experienced significant growth over the past 70 years, evolving from a farming/summer cottage community to the third most populous Township in the State of Michigan. The growth pattern of land use distribution in the Township has remained relatively stable during the past 27 years, as is shown in Figure 5-5. The most significant change in land use distribution during the time period examined has been the shift of vacant land to single-family use.

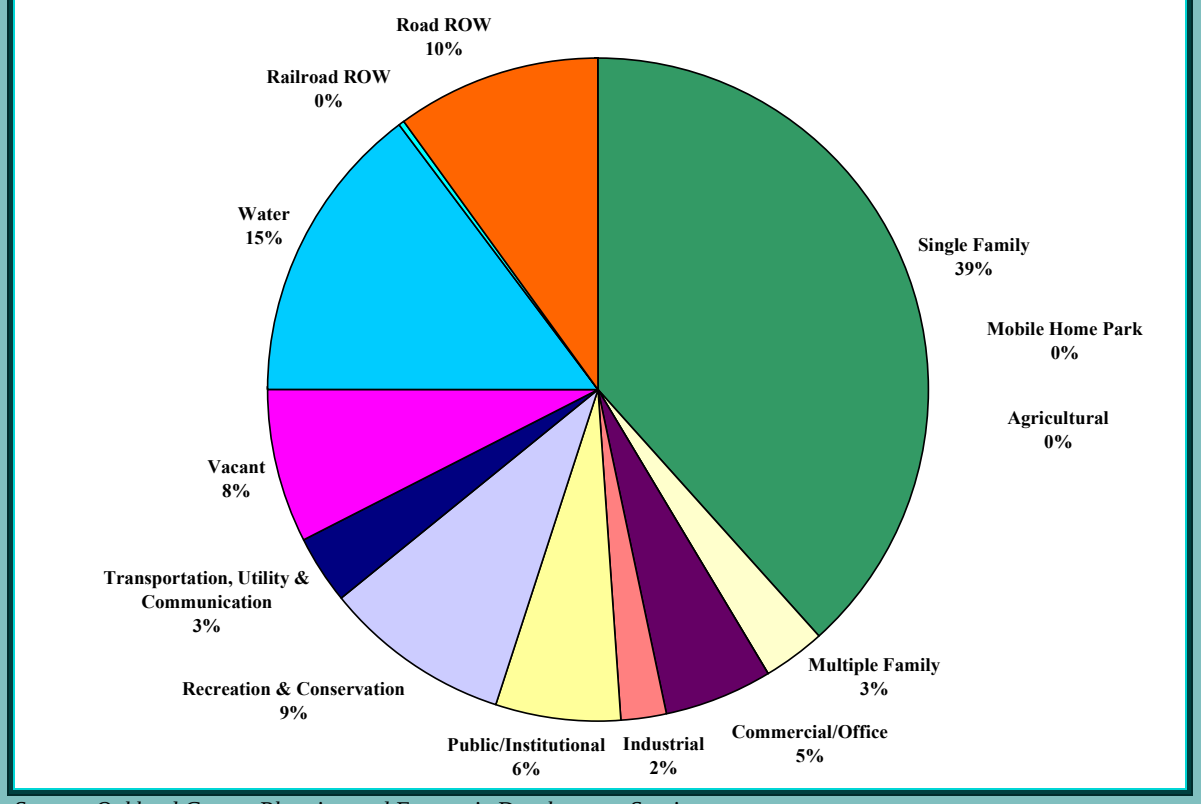
Figure 5-5 Comparative Land Use Development
Waterford Township - 1974-2001



Source: Oakland County Planning and Economic Development Services
NOTE: Some 2001 land use categories were combined to enable comparison with 1974 and 1989 distributions. Please refer to Appendix A-Background Studies for a complete explanation of methodology used.

Waterford is primarily a single-family residential community, with a substantial amount of the area within its boundary covered by water bodies. The percentage distribution of Waterford property among the existing land use classifications is shown in Figure 5-6 below.

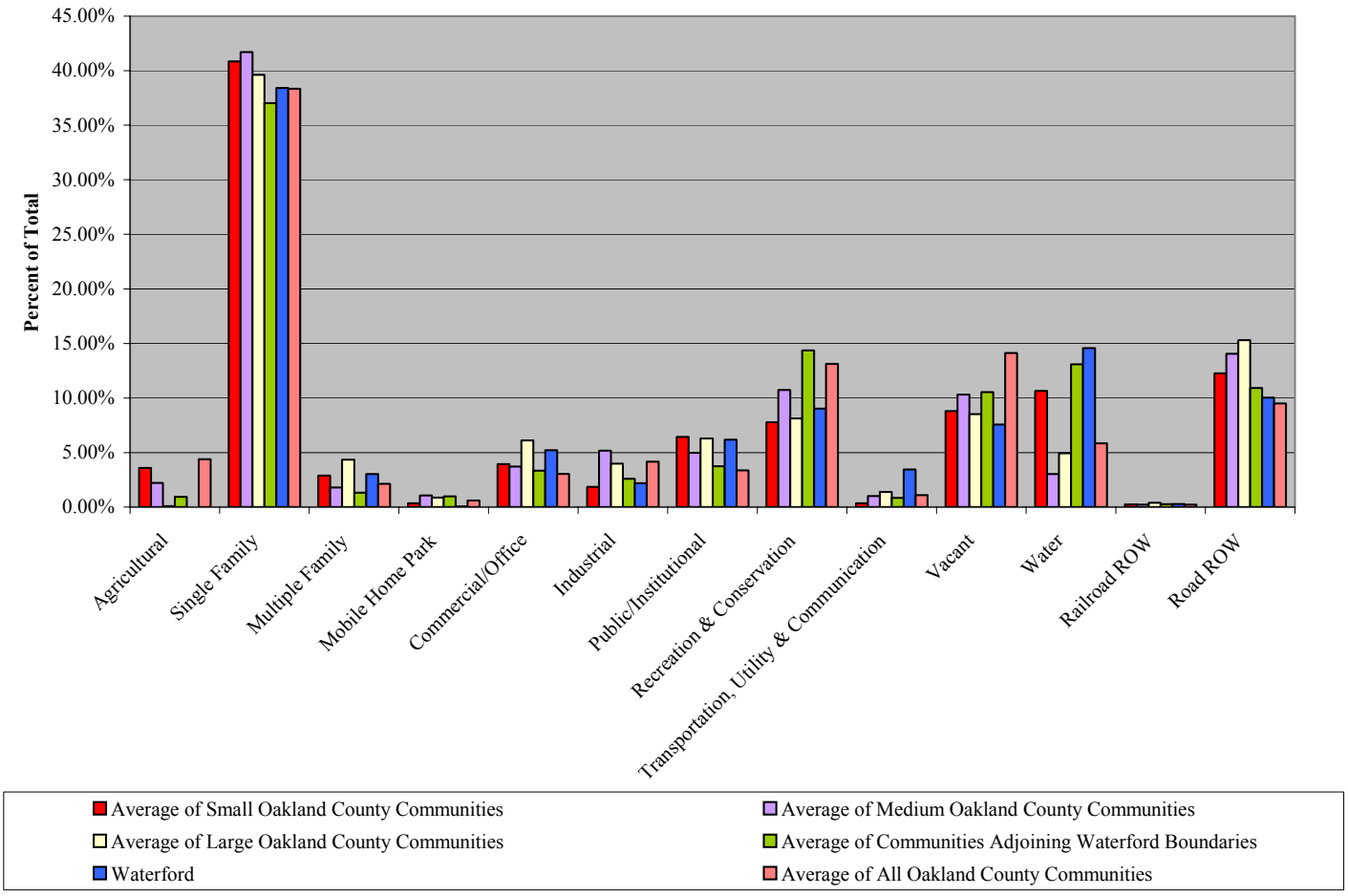
Figure 5-6 Distribution of Existing Land Use Classifications – Waterford - 2001



Source: Oakland County Planning and Economic Development Services

The distribution of Waterford's existing land use was also compared with the existing land use distribution throughout all of Oakland County, the average distribution for the communities adjoining Waterford's borders, as well as with the average distributions for groupings of Oakland County's communities with the smallest, medium-sized, and largest populations. The methodology used to develop these groupings is explained in Appendix A-Background Studies. Overall, as is shown in Figure 5-7 below, Waterford's distribution of existing land uses is not out of character with its neighboring communities or with the County as a whole.

Figure 5-7
Comparative Land Use Development
Waterford and Oakland County Communities - 2001



Source: Oakland County Planning and Economic Development Services

CHAPTER 6 - THE WATERFORD MASTER PLANNING PROCESS

Information presented in Chapters 2 through 5 provide the background for understanding how Waterford has developed into the community it is today. While this understanding is important in developing a Master Plan, establishing the community's vision for the future of Waterford is crucial. Planners and local government administrators cannot presume to establish a community vision without input from and participation of the public. Attempts to implement a master plan developed entirely by Township staff may meet with resistance and opposition from the general public. A master planning process centered on public participation will provide the broad community support necessary to effectively achieve the community vision embodied in the master plan document. Therefore, it is important to establish a planning process that involves citizens in all aspects of determining land use and development goals and objectives.

The Waterford Planning Commission was determined to create a master plan that is an effective tool for achieving the community vision established through the master planning process. With this determination, the Planning Commission established a dynamic master plan process.

THE MASTER PLAN DEVELOPMENT PROCESS

The genesis of the process used to develop this Master Plan began in the summer of 1999. The Planning Commission was frustrated with trying to implement a Master Plan that had not been reviewed or studied since its adoption eight years earlier, on January 22, 1991. The Planning Commission discussed the issue of whether to review the current Master Plan, or to undertake developing a new one. The Planning Commission decided to develop a new master plan document and instructed the Township planning staff to investigate the procedural steps for producing a new document.

Two events occurred that influenced the master planning process. In November 1998, Township staff attended a seminar on walkable communities. This seminar, sponsored by the Southeast Michigan Council of Governments (SEMCOG), provided information and tools to make a community more friendly to pedestrian and bicycle traffic and less automobile-centric. The conclusion of the seminar was that communities that are accessible by all modes of transportation and pedestrian-friendly are more likely to maintain a sense of community and vitality. This information was presented to the Township administration and the leaders of the Waterford Business Association (WBA). Interest in the walkable communities concepts was strong enough to result in the WBA sponsoring two walkability seminars in Waterford in 1999. Members of the Township's Board of Trustees, Planning Commission, Zoning Board of Appeals, and Economic Development Corporation (EDC) attended the second seminar featuring Mr. Dan Burden, a nationally recognized expert on planning walkable communities. The presence of the Township officials at this seminar prompted an increased level of sensitivity and awareness of the issue among Planning Commissioners. The workshop also served as a catalyst for a walkability study, funded by the EDC, as a component of the master planning process.

The second event occurred at the beginning of 2000 when the Township Board decided to combine its planning, code enforcement, economic development, and community development functions into one department. The Township understood that the community was nearing the end of its new development stage and would be focusing its efforts on redevelopment. Township officials were determined to create a proactive organization to utilize all of its planning and development functions to maintain and improve the quality of life in Waterford.

The Planning Commission shared in this determination and wanted to infuse the master planning process with this progressive perspective.

Visioning session participants – June 17, 2000

In early 2000, the Planning Commission decided to implement a master plan process involving the Planning Commission, the Township Board, Township staff, and the general public. Planning consultants would also be hired to assist with certain facets of the process. Commissioners agreed that the first step would be a visioning process where key stakeholders of the community would participate in small group discussions and exercises to determine the initial focal points of the Plan. The Planning Commission received funding approval from the Township Board to hire a consultant to conduct and facilitate a visioning process workshop.

The consulting firm Project Innovations, Inc. was hired to conduct the workshop and prepare a final report for the Planning Commission. Thirty-one community stakeholders were invited and 24 participated in the workshop. On Saturday, June 17, 2000, after extensive discussion and several group exercises, five vision areas were recommended by the participants: commercial corridor improvement, environmental preservation, development of a central business district, creation of neighborhood nodes such as a Drayton Plains "village" center, and construction of a community recreation building. Recommendations resulting from the session were to develop strong public involvement and to use the five areas identified in the visioning workshop as the foundation for determining community goals and objectives through the Township master planning process. *(Please refer to Appendix K for the final report prepared by Project Innovations, Inc.)*

In the autumn of 2000, the EDC hired the consulting firm Beckett and Raeder, Inc. to conduct a walkability study of Waterford. In order to incorporate the walkability study into the preliminary master plan process, the Planning Commission asked the EDC to conduct the study after the conclusion of the visioning workshop. Both the EDC and the consultant agreed to this request. In the autumn of 2000, Beckett and Raeder began their study of walkability in Waterford. The walkability study also included a workshop on January 15, 2001 and a children's workshop on January 16, 2001. The consultant completed a report on their findings and presented it to the EDC on May 17, 2001. The report was accepted by the Township Board in May 2001 and was provided to the Planning Commission for use in the development of the new Master Plan.

Once the walkability study was underway and the visioning workshop report was received and reviewed by the Planning Commission, the Commissioners discussed the components of the primary master plan process. The most important concept that they wanted to establish and implement was that it must be a team-based approach where all Commissioners, Township Community Planning and Development staff, and interested members of the general public would be actively involved in discussing and developing the Master Plan goals and objectives. The core component of the planning process was the creation of a Master Plan Citizen Committee of the Whole which would provide for active citizen involvement.

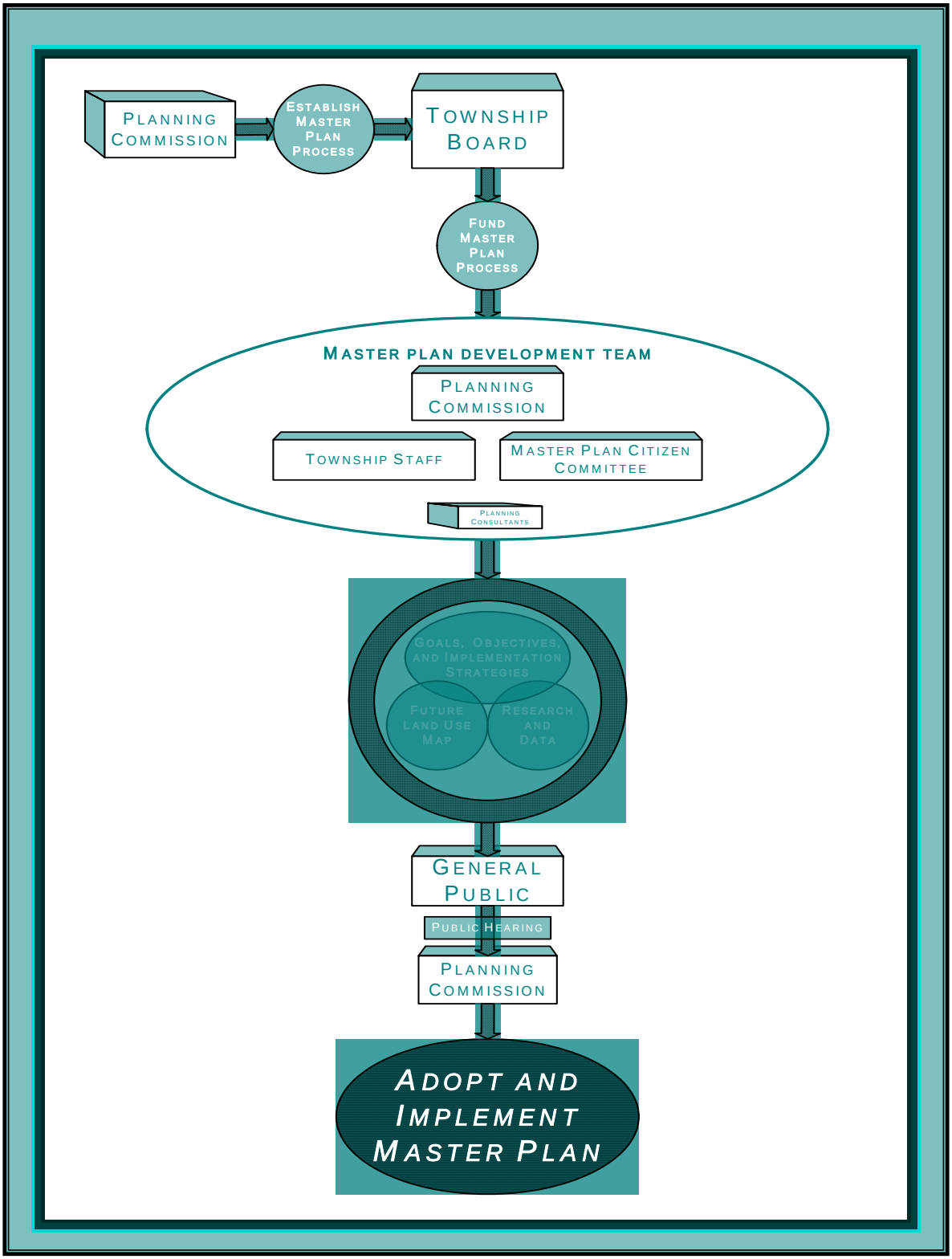
The Commission decided to create from the Master Plan Committee of the Whole, nine subcommittees, with each subcommittee focusing on a specific topic. Each of the nine Commissioners would have the responsibility for chairing one of the subcommittees. Since the visioning workshop included focal points of the commercial corridors, environment, recreation, and the concept of neighborhood nodes, four of the subcommittees were created to address these issues. Transportation was added to the commercial corridor issues and would be reviewed by the Transportation and Commercial Corridor Subcommittee. The Environment Subcommittee would review environmental issues. The Recreation and Open Space Subcommittee would review not only the community recreation building concept, but also other recreation issues and the concept of open space. The concept of neighborhood nodes was merged with the issues surrounding the Waterford Village Historic District for the Historic District and Neighborhood Nodes Subcommittee to investigate. Five additional subcommittees were created to review issues normally associated with master planning: the Capital Improvements and Municipal Services Subcommittee, the Economic Development Subcommittee, the Education and Public Services Subcommittee, the Housing and Demographics Subcommittee, and the Zoning Ordinance and Landscape Aesthetics Subcommittee. Each Subcommittee, chaired by a Planning Commissioner, included five to seven members of the Master Plan Citizen Committee and one of the Township planners served as the Subcommittee staff member.

The Planning Commission then asked the planning staff to advertise for citizens interested in serving as members of the citizen committee. Press releases were sent out, announcements were made at Township Board meetings, and ads were posted on both the Township website and the local cable channel. By spring 2001, seventy interested citizens were identified.

The Planning Commission interviewed three consulting firms interested in the opportunity to assist the master planning team with the development and production of a new Master Plan, and decided to hire the firm HNTB. The Township Board approved the Planning Commission's request to provide the funds to hire HNTB as the consulting firm which would assist the Planning Commission with research, analysis, meeting facilitation, and the drafting of the Master Plan. Finally, HNTB proposed to the Township that it had what they believed was an innovative web-based communications tool, InterXchange, which would be beneficial to the Planning Commission and Township staff in communicating with all of the citizen members. In addition, the polling firm EPIC/MRA would be hired to conduct a scientific survey of Township residents on issues related to the Master Plan development.

The Master Plan team was now complete. In April 2001, the Planning Commission initiated the final Master Plan development process. The process, graphically presented in Figure 6-1 below, began with a kickoff meeting of the Planning Commission, Master Plan Citizen Committee of the Whole members, Township staff, and HNTB. At the kickoff meeting, the consultant conducted a brief survey of Committee members to determine their likes and dislikes about the community. The consultant intended to use the results of the survey as a benchmark in determining community opinion. After the kickoff meeting, the team members divided into subcommittees and proceeded to gather data, measure public opinion, review the Master Plan issues, and discuss possible goals and objectives. The tools which were used to accomplish these tasks are described in the next section.

Figure 6-1 Charter Township of Waterford Master Planning Process



PUBLIC PARTICIPATION TOOLS USED

In order to gauge community opinion effectively on the range of Master Plan related issues, the Planning Commission chose participation tools that would gather opinions from citizen interest groups as well as from the general population. The results of the visioning workshop served as the starting point for determining community opinion and values. The following is a brief synopsis of the results gained through the use of both sets of tools. More detail on the process used and the complete results gained from the use of each tool can be found in Appendix K.

Citizen Interest Group Opinion Tools

Planning Commissioners decided that the consultant could obtain opinions and community vision through interviews of individuals chosen by Township staff as key stakeholders. For the key stakeholder interviews, the Township staff identified individuals who were in key public positions with the ability to influence, develop, and/or implement public policy. The key stakeholder interview tool was used to provide information on interest group opinions to the Planning Commission.

After the planning process was initiated, and the Planning Commissioners and Master Plan Citizen Committee of the Whole members participated in the April 2001 group exercise to determine their opinions on the strengths and weaknesses of the Waterford community. The consultant used these opinions as the basis for the interview questions. Ten key stakeholders representing members of the Township Board, the Zoning Board of Appeals, the Township department heads, and the Road Commission for Oakland County were interviewed. The results of the interview indicated that the key stakeholders shared the same opinions on Waterford's strengths and weaknesses as the Master Plan Committee members. The recurring points among the key stakeholders were:

- the lack of aesthetics and development planning along the Township's commercial corridors
- traffic congestion
- the need for stronger communication among governmental agencies
- the need for an improved and expanded nonmotorized path system
- strong emphasis on walkability, and
- the need for a strong community center and activities for Township youth.

There was also consensus that the Zoning Ordinance needs to be updated and code enforcement efforts need to be strengthened. The key stakeholders expressed their views that the Township has historically done well in protecting the lakes, establishing a park system, the bikepath system, the municipal and public safety services, the water and sewer system, and proactively establishing and using the internet and electronic information systems within the Township. There were concerns on the part of the key stakeholders that traffic congestion, development on the lakes, airport expansion, fad developments such as building drugstores on every corner, lack of land for park and recreation expansion, and balancing government expenses with revenues are potential threats to the future well-being of the Waterford community. This indicated that the Committee members would be evaluating and determining master plan goals and objectives that the key stakeholders could support. This in turn may provide greater mutual support and backing by the stakeholders for accomplishing these goals. Since there was now evidence that the Committee members reflected the views of the stakeholders, the Planning Commission wanted to find out if the Committee members also reflected and shared the opinion and values of the general public.

General Population Opinion Tools

The Planning Commission also wanted to determine the views of the general population on the issues they were studying. The Commissioners decided to use scientific polling techniques and public town hall meetings to measure public opinion. Their goal was two-fold in using these tools. First, they wanted to make sure that the goals and objectives that were being developed had the support of the community. Second, they wanted to measure and analyze any differences of opinion between themselves, the key stakeholders, and the general public in order to create a better consensus for the final goals and objectives. The following are the results from each of the general population opinion gathering tools.

General Population Survey

In order to obtain the best possible cross-section of public opinion on the ideas being discussed by the Subcommittees, the Township decided to hire the professional polling firm of EPIC/MRA to conduct a scientific telephone survey. The process used involved the Subcommittees developing draft questions, then submitting these questions to EPIC/MRA. EPIC/MRA then developed a survey document based on the questions and conducted the survey July 7 through 10, 2001. The survey results are based on a population sample size of 298 respondents, with a ±5.7 percent error rate. A complete description of the methodology used and a report on the results can be found in Appendix K.

The population sample used for the survey involved a substantial majority of 68 percent, who have lived in Waterford for more than ten years. A majority of those surveyed were also Waterford property owners. As measured by the survey, Waterford citizens were generally satisfied with their community. While the consensus was that the biggest problem or issue facing the Waterford Township government is taxes, 56 percent expressed the opinion that there is nothing they dislike about Waterford Township. Over 82 percent say location, sense of community, neighbors, and the lakes are what they like the most about living in Waterford Township. The majority were also satisfied that the Township contains the right mixture of residential, commercial, industrial, and office development and that economic conditions are the same or better than in surrounding communities.

The survey focused on gaining public insight into ten topics: recreation, the Historic District, the neighborhood node concept, commercial corridor improvements, economic development, transportation, wetland protection, municipal services, education, and capital improvements. Those surveyed supported many of the concepts presented to them in each of these topic areas. The most significant findings in the ten topic areas are as follows.

Recreation
Existing parks were strongly supported by the citizens, but opinion was evenly split between adding active parks or adding passive parks. People were divided on supporting a millage to pay for acquisition of land for additional active parks, but the level of support increased to strong majority for requiring developers to set aside land in their developments for parks. There was support for constructing and developing a community center, but the majority of respondents clearly did not want other services cut to fund a center. Nearly 60 percent would support a millage to pay for a community center, provided that the annual additional property tax they pay was less than $80.00.

Waterford Village Historic District
There was a slight majority of citizens who favored using tax dollars to fund streetscape and nonmotorized pathway improvements in the District. There was

a strong majority favoring efforts to reduce the speed of vehicles traveling through the District area.

Neighborhood Nodes
There was strong support for the expenditure of tax dollars to make the necessary improvements to roads, sidewalks and landscaping for the specific purpose of advancing the neighborhood node concept in Waterford Township.

Commercial Corridors
People expressed support for the goal of improving the Township's commercial corridors. In particular, there was a clear majority supporting efforts along the commercial corridors to establish uniform commercial signage and to construct more nonmotorized pathways.

Economic Development
Citizens were discerning in their support of economic development. As a general rule, the majority appeared to prefer most economic development efforts remain in the hands of the private sector. This was also reflected in the opinion of the majority of the respondents who were undecided on the types of businesses the Township should be working to attract. However, they were supportive of specific Township economic development efforts. A majority supported the establishment of a business registration program and over two-thirds of the respondents support Township economic development efforts to assist the Summit Place Mall. There was also support for Township efforts to provide tax abatements and apply for state loans to acquire abandoned properties, but the support was weak enough to indicate either the public needs further education on this issue or that the Township must exercise discretion in pursuing their economic development projects.

Transportation
Although traffic was cited as one of the issues of concern for the Township, citizens did not view mass transit as the answer. A slight majority was opposed to the establishment of a mass transit bus system in Waterford and a slightly larger majority was opposed to cutting other services to fund mass transit. Half of the citizens were opposed to a special millage to fund a bus transit system for senior citizens. The majority of respondents appeared to support the concept of a walkable community. However, nearly three-quarters of the respondents indicated that walkability is hampered by safety concerns and that destinations are too far away.

Wetland Protection
The majority of respondents were satisfied with the current system of wetlands protection.

Municipal Services
There was very strong support for continuing the existing levels of services. Over 80 percent of respondents supported renewal of millages for the library, police, and fire services. The response to establishing new services was mixed. A majority of the respondents, nearly half, were opposed to Township-wide waste collection. However, if such a service were established, nearly 90 percent of the respondents would demand a curbside recycling component. There was also strong support for establishing an annual program for the drop-off of hazardous waste materials.

Education
Overall, 54 percent of respondents appreciated the job that the Waterford School District is doing providing a kindergarten through 12th grade education.

Capital Improvements
A majority of respondents understood the need for capital improvements and were supportive of funding needed improvements, particularly storm drains, nonmotorized pathways, and road improvements. The support is reduced if it means reducing other services to fund the improvements. Citizens would support a special millage to raise the needed funds, provided that it does not cost the average citizen more than $100.00 per year in additional tax dollars.

First Town Hall Meeting

On September 25, 2001, the Master Plan Subcommittees concluded their work with a final small group exercise to evaluate all of the goals and objectives developed and to determine changes to them prior to publishing them as the final work of the Subcommittees. Once this was done, a town forum workshop was scheduled for October 17, 2001 at Waterford Mott High School. The intent of the town forum was to invite the public to attend and participate in evaluating the major master plan themes developed from the Subcommittee goals and objectives. Forty-seven citizens attended the town forum and participated in the workshop.

Two views, one pro and one con, of twenty issues were presented to the participants for discussion. From the results, it became apparent that a majority of the groups agreed with the majority of the principles for each issue. Only one issues was considered undecided. Weighing how the groups voted and taking into account the importance point totals, below is a summary list of how the different principles were evaluated.

STRONGLY AGREED

- Overhead utility wires should be placed underground
- Keeping the current trash system, each area should have a specific trash pickup day
- Businesses should be required to register with the Township
- The Township should use tools like videos and brochures for economic development
- The Township should construct a community center building
- The community center building should have a pool
- The Township should build interconnected pedestrian pathways throughout the community
- Large trucks should be restricted or rerouted from Andersonville Road
- The Township should promote the neighborhood node concept
- Mixed-use development should be allowed at the Summit Place Mall
- The Township should have an inspection program for rental properties
- The Township should not have a pre-sale house inspection program because it would be too expensive for the seller
- Pedestrian safety improvements along M-59 and Dixie Highway should be a high priority
- To enhance the appearance along major roads the Township should pursue aesthetic criteria for signage and landscaping
- Access management along major roads should be a high priority
- The Township should pursue new road improvements/designs including traffic calming for M-59 and Dixie Highway

- The Township should ease north-south access through the Township by implementing grade separation at one or more railroad crossings (An issue not on the original list was raised by a participant and included in this category)

AGREED

- The Township should fund and conduct a storm drainage plan
- The Township should create an Economic Development Coordinator position
- The current trash pickup service is adequate

UNDECIDED

- The Township should purchase land for parks and preservation of environmentally sensitive land

  Please Note: This issue appears in the undecided column because the group votes measured during this exercise showed opinion split evenly on this issue. However, the individual votes measured during this exercise appeared to lean slightly towards favoring the incorporation of this issue as a master plan goal.

In addition, the participants were asked to choose their three most important issues out of the 42 listed. Because of the voting technique used, there were 282 votes available for deciding the most important issue. Once the votes were tallied, the most important issue, with 13 percent of the votes, was the development of a community center. The next top four ranking items were establishing a business registration program (8%), installing all utility lines underground (7%), constructing a community pool (6%), and implementing a commercial corridor aesthetic improvement program (6%). Among the general public participating in this town forum, there seemed to be little to no disagreement with the goals and objectives developed by the Master Plan Subcommittees. The only Master Plan Subcommittee objective which this group of citizens strongly objected to was implementing a pre-sale house inspection program conducted by Township staff. This strong objection was noted by Township staff and the pre-sale house inspection program objective was removed from the list of Master Plan goals, objectives, and strategies. One item that was not discussed during the Subcommittee process was the issue of grade separations between some of the Township's road and railroad crossings. This issue was raised by one of the citizens who participated in the town forum and was added to the list of issues to be voted on by the participants. There was strong agreement among the participants that the grade crossing issue should be included as a goal, objective, or strategy in the new Master Plan. When the issue was being discussed, the grade crossings at Frembes Road, Hatchery Road, Watkins Lake Road, and Scott Lake Road were of particular concern to the participants.

The details on the process used and results of the town forum are described in Appendix K.

Second Town Hall Meeting

The second town forum workshop was held on May 1, 2002, at the Hess-Hathaway Park Community Building. The goal of this second workshop was to provide the general public with a progress report on the future land use component of the master plan process and the opportunity to participate in evaluating the new land use designation components proposed for the new Master Plan. Twenty-six citizens attended the town forum and participated in the workshop. The consultant first presented an overview and brief description of the proposed land use designations. After the overview was completed, the consultant described the small group exercise to be conducted by the participants. Two views, one pro and one con, of several issues related to the proposed new land use designations were presented to the participants for discussion. Below is a summary of how the participants viewed the proposed land use designations.

Central Community District
Strong support for promoting development of a central business district with mixed use, walkability, and ample parking with tendency to rear parking for aesthetic effect.

Urban Business District
Strong support for establishing a district that emphasizes the existing character of neighborhood shopping areas, buildings, setbacks, signs, and for developing shared drives and parking areas.

Planned Destination Center District
Staunch support for allowing mixed use redevelopment with housing, commercial recreation, and enhanced landscaping and aesthetics.

Rural Character Overlay
Strong support for protecting the rural character of the southwest sector of Township, encouraging cluster development to protect, identify and link natural areas for preservation of high quality natural resources and recreational purposes.

South Lakes Recreation Overlay
Intense support for maintaining existing land uses. Very little support for this proposed overlay.

Scenic Overlay
Strong support for new parkway as north-south connector for Waterford and surrounding communities.

Redevelopment Area Overlay
Support split between maintaining the golf course and allowing for the redevelopment of the area as a park and planned community housing development. There was strong support for the redevelopment of other properties in the vicinity of the golf course, particularly along Elizabeth Lake Road, although the establishment of an overlay may not be necessary to achieve this redevelopment goal.

Historic District Overlay
Strong support for improving streetscape and re-evaluating boundaries. Resolute support for prohibiting cut-through traffic.

Neighborhood Nodes
Strong support for developing neighborhood node concept.

Walkability
Intense support for emphasizing a sense of place and a walkable streetscape. There was also adamant support from a group of residents living along the Clinton River who added the issue of "no riverwalk" through residential yards; and they placed all of their votes on this particular aspect of the issue.

Among the general public participating in this town forum, there was little to no disagreement with the proposed creation of the Central Community Business, Urban Business, and Planned Destination land use designations. The participants appeared to be in agreement that these designations, when established in the geographic areas of the Township shown on the proposed future land use map, will assist in achieving the Master Plan goals and objectives. There were mixed feelings about the proposed use of the overlay tool. While the town forum participants

were strongly supportive of establishing a Historic District Overlay for the Waterford Village Historic District area and an Open Space Overlay for the southwest section of the Township, there was very little support for the proposed South Lakes Recreation Overlay or Redevelopment Area Overlay. While the town forum participants were supportive of the goal to develop the proposed realigned segment of Williams Lake Road between M-59 and Gale Road as a parkway, Township staff questioned the need for an overlay to protect against development along a road being constructed through state land. Township staff decided that describing the objective of constructing a parkway was a more effective means of master planning this area than establishing an unnecessary overlay.

There was strong support among the participants for the Township to implement the neighborhood node and walkability concepts as part of the new Master Plan. However, while the town forum participants accepted the neighborhood nodes concept in its entirety, there were some strong concerns raised about one particular objective of the walkability goal. The objective of creating a riverwalk along the Clinton River had both strong support among many of the town forum participants and vehement opposition from a group of participants who live along the Clinton River. These participants were strongly opposed to any efforts to locate a riverwalk along the Clinton River in areas where the property is privately owned and used for single-family residences. This particular group of town forum participants believed so strongly in their position that they placed all of their opposition votes on the riverwalk issue. Therefore, while the overall concept of the riverwalk appears to be supported by the community, this support needs to be tempered with the understanding that the objective of establishing a riverwalk system must also contain the requirement that it will not be constructed along those segments of the Clinton River where single family residences are constructed and the riparian rights belong to the owners of these residential properties. Township staff will work with the property owners in these residential areas to determine an effective linkage between riverwalk segments that do not negatively affect the quality of life for those property owners with residences located along the Clinton River.

MASTER PLAN DOCUMENT DRAFTING

After the conclusion of the second town forum, the drafting of the Master Plan document began. The drafting efforts began in May 2002 and were completed in December 2002. During that time period, the consultant submitted four drafts, none of which were acceptable to the Planning Commission as a final draft. The effort concluded with the Township staff thoroughly reviewing all master plan components and then preparing the final draft for consideration by the Planning Commission. The draft review process involved the Township staff, the Planning Commission, the Master Plan Citizen Committee, neighboring communities, and stakeholder agencies.

Besides the hours spent by Township staff reviewing, commenting, and revising the draft, three master plan reviews were held during the July 9, 2002, August 13, 2002, and September 10, 2002, regularly scheduled Planning Commission meetings. While the Commissioners and Committee members expressed satisfaction with the core of the draft Plan, namely the goals, objectives, and general outline of the proposed future land use map, there were many critiques on the need to improve the flow, writing style, consistency, and formatting of the document. There were also comments on the need to include the background information to substantiate the Subcommittee goals and objectives.

In addition to these public meetings, the initial draft was submitted to stakeholder agencies and all of the adjacent municipalities for their review and comment. The Township received comments from only one municipality, Commerce Township. The Commerce Township Supervisor and Township Planning Director both complimented Waterford on the citizen involvement in the master plan process and asked about the costs involved in Waterford's

process. There were no objections to any of the goals, objectives, or proposed future land uses. The correspondence from Commerce Township can be found in Appendix K.

MASTER PLAN PUBLIC HEARING

On November 26, 2002, at 6:30 p.m., in the Waterford Township Auditorium, the Planning Commission held the public hearing on the new Master Plan. The Township worked on notifying the public of the Master Plan public hearing throughout October and November 2002. Besides the required printed legal notifications, notifications were posted on the Township's website and the municipal cable station. Announcements were made publicly by the Township Supervisor at two Township Board meetings, which are telecast live on cable. The Planning Commission Chair also announced the public hearing date during the live telecast of the October 22, 2002, Planning Commission meeting. Displays of the draft future land use map were posted on each floor of Township Hall and at the Library, along with copies of the public hearing notice.

After the Township staff made a brief presentation on the proposed goals, future land use map, and land use designations, the Planning Commission opened the public hearing. The only questions raised were in reference to the proposed number of lanes for Williams Lake Road. There were no objections to any of the goals, objectives, or proposed future land uses. The Planning Commission then closed the public hearing and instructed Township staff to complete work on the final draft for Planning Commission review prior to final adoption.

MASTER PLAN FINAL ADOPTION

Township staff continued to work on completing the final draft Master Plan between the conclusion of the public hearing and the next regularly scheduled Planning Commission meeting on December 10, 2002. The Planning Commissioners were provided a rough final draft for their review. The Planning Commission held special meetings on both December 19, 2002 and January 2, 2003 to discuss and review the final Master Plan draft. At the January 2, 2003 meeting, the Planning Commission decided that the final Master Plan draft prepared by Township staff was complete and fully expressed the long-range land use goals for Waterford. Therefore, the Planning Commission adopted the final draft, dated December 30, 2002, as Waterford's new Master Plan.

CHAPTER 7 – SUBCOMMITTEE GOALS AND OBJECTIVES

The Waterford Township Planning Commission created nine Subcommittees with the members of the Master Plan Committee of the Whole, as described in Chapter 6. Each Subcommittee met on a regular basis between April and September 2001. Eight of the Subcommittees created a mission statement to develop proposed goals and objectives for inclusion in the new Master Plan. These eight Subcommittees met approximately twice a month, discussed personal experiences related to the Subcommittee subject matter, reviewed pertinent information, and listened to guest speakers before developing goals and objectives. The ninth Subcommittee, Zoning Ordinance and Landscape Aesthetics, had a slightly different mission. The Zoning Ordinance Subcommittee met and discussed the existing Zoning Ordinance between April and September 2001, then decided to adjourn until the new Master Plan was adopted. The Subcommittee will begin meeting again and assist in the development of a new Zoning Ordinance based on the new Master Plan. This Chapter provides a synopsis of each Subcommittee's work as well as other relevant information resulting from these meetings.

Each section contains a list of the Subcommittee members, an introduction, an explanation of the review process used by the Subcommittee, the mission statement adopted by the Subcommittee members, a meeting summary, and concludes with their proposed goals and objectives. The Subcommittee summaries are presented in the following order:

- Capital Improvements — Pages 7-2 through 7-11
- Economic Development — Pages 7-12 through 7-15
- Education & Public Services — Pages 7-16 through 7-22
- Environment — Pages 7-23 through 7-29
- Recreation & Open Space — Pages 7-30 through 7-36
- Transportation & Commercial Corridors — Pages 7-37 through 7-40
- Historic Preservation & Neighborhood Nodes — Pages 7-41 through 7-49
- Housing & Demographics — Pages 7-50 through 7-54
- Zoning Ordinance and Landscape Aesthetics — Pages 7-55 through 7-57

CRITERIA FOR SUBCOMMITTEES' EVALUATION OF DATA

Members of the Subcommittees did not personally evaluate emergency response times, arrest and convictions rates, traffic counts, infrastructure maintenance or other similar detailed information. The Subcommittee reviewed and discussed the information that staff and various guest speakers provided. An additional important criterion was each member's personal observations and knowledge of the Township. Therefore, the conclusions and recommendations of the Subcommittees were based on the expertise of guest speakers, on the research data provided by Township staff, and on personal observations and experiences. The goals and objectives developed by each Subcommittee were not prioritized, and are listed in random order.

CAPITAL IMPROVEMENTS AND MUNICIPAL SERVICES SUBCOMMITTEE

Subcommittee Members

- Jay Shah, Chairman
- Joe Franz
- Bill Harris
- Dino Hernandez
- Tom McKinstry
- John Pritchard
- Ralph Woznick
- Chuck Zamek

Staff Members

- Doug Bradley, Building and Engineering Director
- Bob Vallina, Community Planning and Development Director

One of Waterford's recent capital facility improvements, the state of the art Police Department Building

Introduction

It is difficult for a municipality to run efficiently without practical and effective investment in, and maintenance of its infrastructure and municipal services. Municipal services are critical because they are the civic foundation of every community. The quality of life for residents is adversely affected when these services and standards deteriorate. Without a comprehensive long range planning approach, the Township's ability to provide health, safety, and general welfare services to residents suffers.

There are several important components necessary for successful delivery of municipal services. These components include Township employees, equipment and vehicles, municipal buildings, water and sewer lines, roads, and other municipal infrastructure facilities. The Township collects and administers taxes to ensure the smooth operation and delivery of public services. Planning for capital improvements is important because infrastructure ages and must be replaced, and new needs arise that require additional investment.

Subcommittee Review Process

The Capital Improvements and Municipal Services Master Plan Subcommittee met nine times between the end of April and the beginning of September 2001. In order to accomplish their mission, the Subcommittee divided their review into two categories: capital infrastructure and municipal services. The Subcommittee reviewed the following issues in the two categories and used the information they gathered to develop their goals and objectives:

Capital Infrastructure Issues

- Water service
- Sewer service
- Storm water system
- Roads
- Sidewalks
- Municipal buildings
- Existing utilities
- Future utilities
- Communications

Municipal Service Issues

- Administration
- Police
- Fire / Emergency Medical Services
- Water and sewer
- Facilities and operations
- Library
- Parks and recreation
- Building and engineering
- Community planning and development

Several experts were invited by the Subcommittee to present information regarding municipal facilities and services. Representatives from the Township administration, the Road Commission for Oakland County, and the Oakland County Drain Commissioner's Office provided excellent resource information.

Mission Statement

Section of completed sidewalk along Hospital Road -2002

The mission of the Capital Improvements and Municipal Services Subcommittee was to evaluate the capital infrastructure and municipal services needed to provide for the health, safety, and general welfare of the citizens of Waterford Township during the next twenty years. The Subcommittee also reviewed the interrelationships between the Township, County, and State in maintaining and improving the Township's capital infrastructure and municipal services. In particular, the Subcommittee wanted to determine if the maintenance of the current service levels of the Police Department, Fire Department, and Department of Public Works was adequate. In addition, the Subcommittee wanted to determine if the current storm drainage infrastructure, nonmotorized paths, and road system in the Township effectively serve the citizens of Waterford.

Meetings Summary

The Subcommittee expressed great pride in the recent construction of the capital building improvements made by the Township. These improvements are:

- Township Library building
- New Fire Department Headquarters and Fire Station #1 building
- New Police Department Headquarters building and
- New Department of Public Works building

The Subcommittee concluded that overall, municipal services, such as police, fire, and water and sewer appear to meet the needs of its citizens at the current level of service. The Subcommittee also concluded that the future needs of Waterford's citizens should continue to

be met if the current level of service per capita is maintained as the Township's population increases and ages. The Subcommittee further concluded that improvements need to be made to the Township's stormwater drainage system, nonmotorized pathway system, and roadway system in order to meet the current and future capacity needs of Waterford citizens. The Subcommittee finally concluded that the continued maintenance of the Township's water and sewer infrastructure is critical to the quality of life for Waterford residents.

Responsibility for the operation and maintenance of the Township's stormwater drainage system is divided between various governmental authorities, including the Oakland County Drain Commissioner, the Road Commission for Oakland County, the Michigan Department of Transportation, and the Township. This fragmented responsibility makes it difficult to effectively address the drainage concerns of Township residents in a timely fashion. The Subcommittee concluded that more efforts need to be made to create, expand, and maintain a more effective storm drainage system throughout the Township.

One of the findings was that the Township continues to experience increased traffic congestion. Since the Township's road network is largely complete, the Subcommittee concluded that new extensions or rerouting of existing roads, as well as redesigning existing roads, needed to be studied, developed, and engineered to calm and enhance traffic flow. An enhanced design of the existing road system could provide efficient and effective connections between Waterford's residential neighborhoods and its redeveloped commercial corridors.

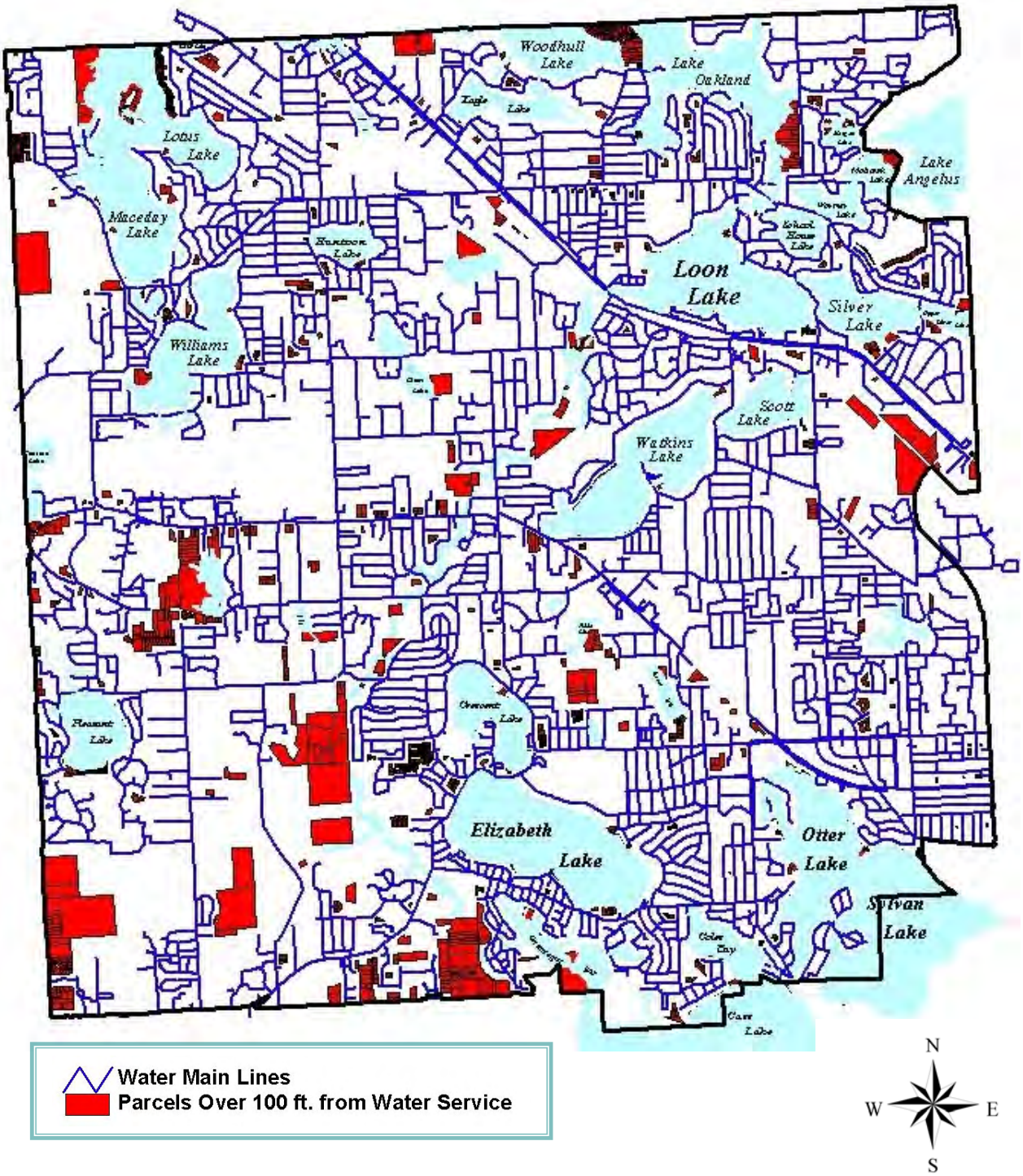
Through the review process, the Subcommittee found that while there is a substantial amount of existing nonmotorized pathways in the Township, there are significant gaps in the system. This adversely impacts the fostering of a walkable community. The Subcommittee concluded that the greatest challenge facing the Township regarding the completion, expansion, and maintenance of an effective nonmotorized pathway system would be development of a dependable and long-term funding source to construct and maintain these improvements.

The following five categories were major topics of discussion.

Underground Water and Sewer Service Lines - At many of the meetings, members discussed underground services, such as water lines, sanitary sewer lines, and storm drainage. According to the presentations and information provided by Township staff, the Township is well serviced geographically by the current water and sewer systems *(please refer to Map 2 on Page 7-5 and Map 3 on Page 7-6)*.

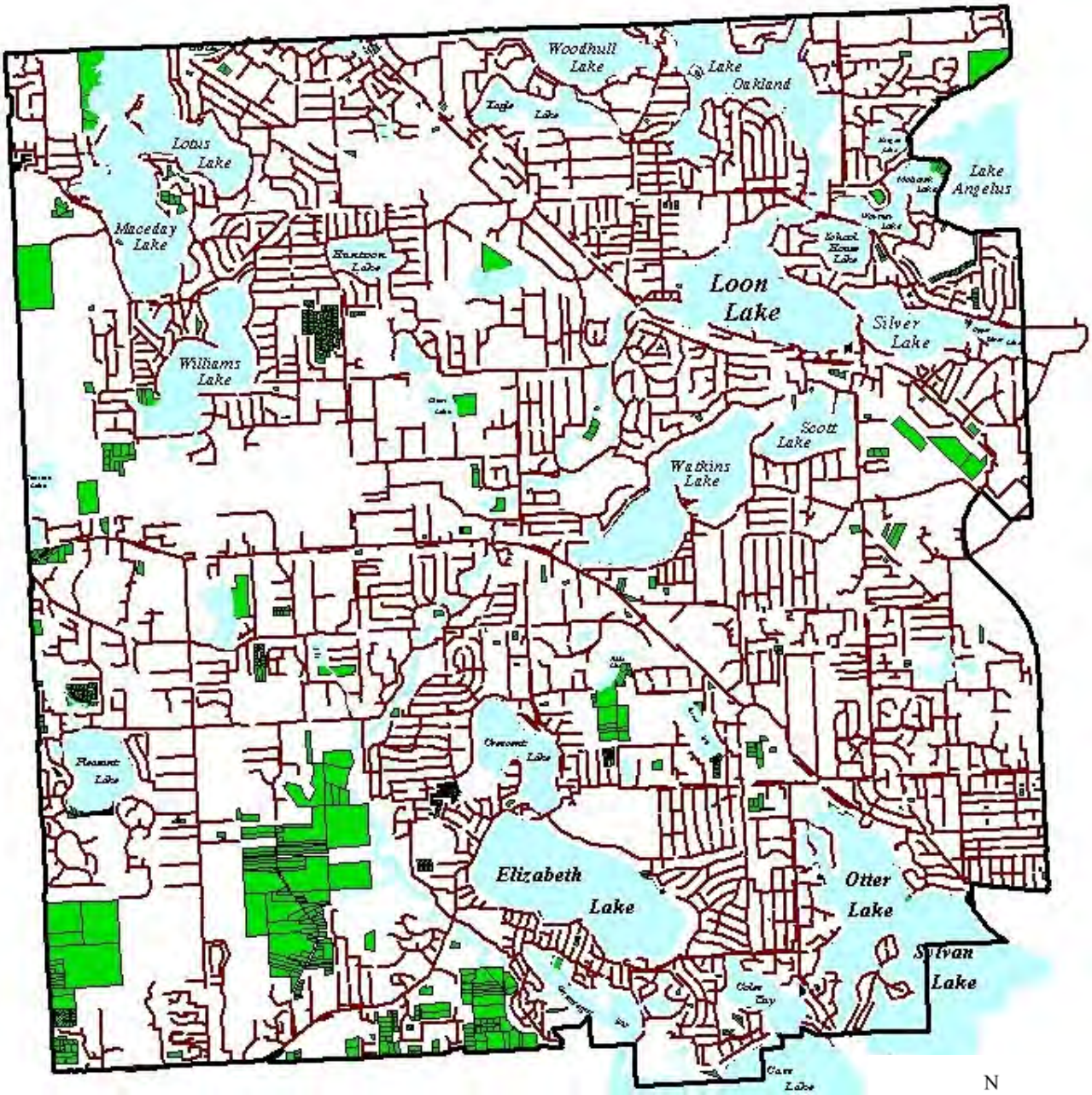
After reviewing maps and other information, the Subcommittee concluded that the extension of water and sewer services is not the major concern for the future development and redevelopment of the Township. Maintenance of the current infrastructure is the primary concern. Since the water and sewer lines are located underground, they are buffered from most outside forces and the risk of damage from anything other than improper excavation is minimized. The underground location does increase the cost of maintenance and presents a challenge to conducting an ongoing preventative maintenance and improvement program. Based on their findings, the Subcommittee concluded that a critical long-range goal for the Township was to ensure that sufficient funds be continuously budgeted for both emergency and proactive maintenance of the water and sewer infrastructure in a timely, efficient, and cost-effective manner for the health and safety of Waterford citizens.

Map 2 Location of Water Service Lines



Source: Waterford Township GIS and Community Planning & Development
This map is intended to provide general information only. For more detailed map information on the topic of this map, please visit the Charter Township of Waterford web site at www.twp.waterford.mi.us or contact the Community Planning & Development Department at (248) 674-6256.

Map 3 Location of Sewer Service Lines



Sewer Main Lines
Parcels Over 100 ft. from Sewer Service

N
W E
S

Source: Waterford Township GIS and Community Planning & Development
This map is intended to provide general information only. For more detailed map information on the topic of this map, please visit the Charter Township of Waterford web site at www.twp.waterford.mi.us or contact the Community Planning & Development Department at (248) 674-6256.

Storm Sewers - A representative of the Oakland County Drain Commissioner's Office attended a meeting, at the request of the Subcommittee. It was explained that the Drain Commissioner does not oversee all the drainage systems in Waterford Township. The Road Commission for Oakland County (RCOC) and the Michigan Department of Transportation (MDOT) are responsible for maintaining drainage systems along the Township's public road system. In addition, there are several natural and privately owned drains in the Township. With such a fragmented system, it is difficult to adequately address all of the drainage concerns and problems facing the Township. The Subcommittee also learned that even special assessment districts could not provide adequate funds to maintain the existing County drains in the Township.

Based on their findings, the Subcommittee recommended that a detailed study and evaluation of storm water drainage in the Township be conducted. The Subcommittee also recommended that methods to provide adequate funding to implement and maintain a complete and effective storm drainage system be investigated and undertaken.

Roads - Roads were another major concern for the Subcommittee because the Township does not have control of its public roads. MDOT and the RCOC are the governmental agencies responsible for providing general maintenance and improvements for the public roads in the Township. MDOT is responsible for the state highways M-59, Telegraph Road, and Dixie Highway, while the RCOC is responsible for all other public roads in the Township. The Township is currently not officially responsible for the maintenance or improvements of any roads within the Township. The owners of private roads provide maintenance and improvements to those roads.

The Subcommittee identified goals regarding improvements to specific roads in the Township. These goals included paving the remaining unimproved sections of Hospital Road and Lochaven Road, continuing support of the relocation efforts for Williams Lake Road between M-59 and Gale Road to eliminate the existing dual intersection, and extending Williams Lake Road between Gale Road and Nelsey Road. Additional goals identified were extending Crescent Lake Road between Hatchery Road and Dixie Highway, relocating Watkins Lake Road to eliminate the existing dual intersection, relocating Airport Road to eliminate the existing dual intersection, and splitting Warren Drive into two dead end streets: one with access from Dixie Highway for industrial use, and one with access to Frembes Road for residential use.

A representative from the Road Commission attended one of the Subcommittee meetings and provided insight on future roadway plans for Waterford. It was emphasized that the largest obstacles for road improvements are:

- the increasingly higher cost of building and maintaining roads, and
- the decreasing amount of dollars available from all funding sources combined

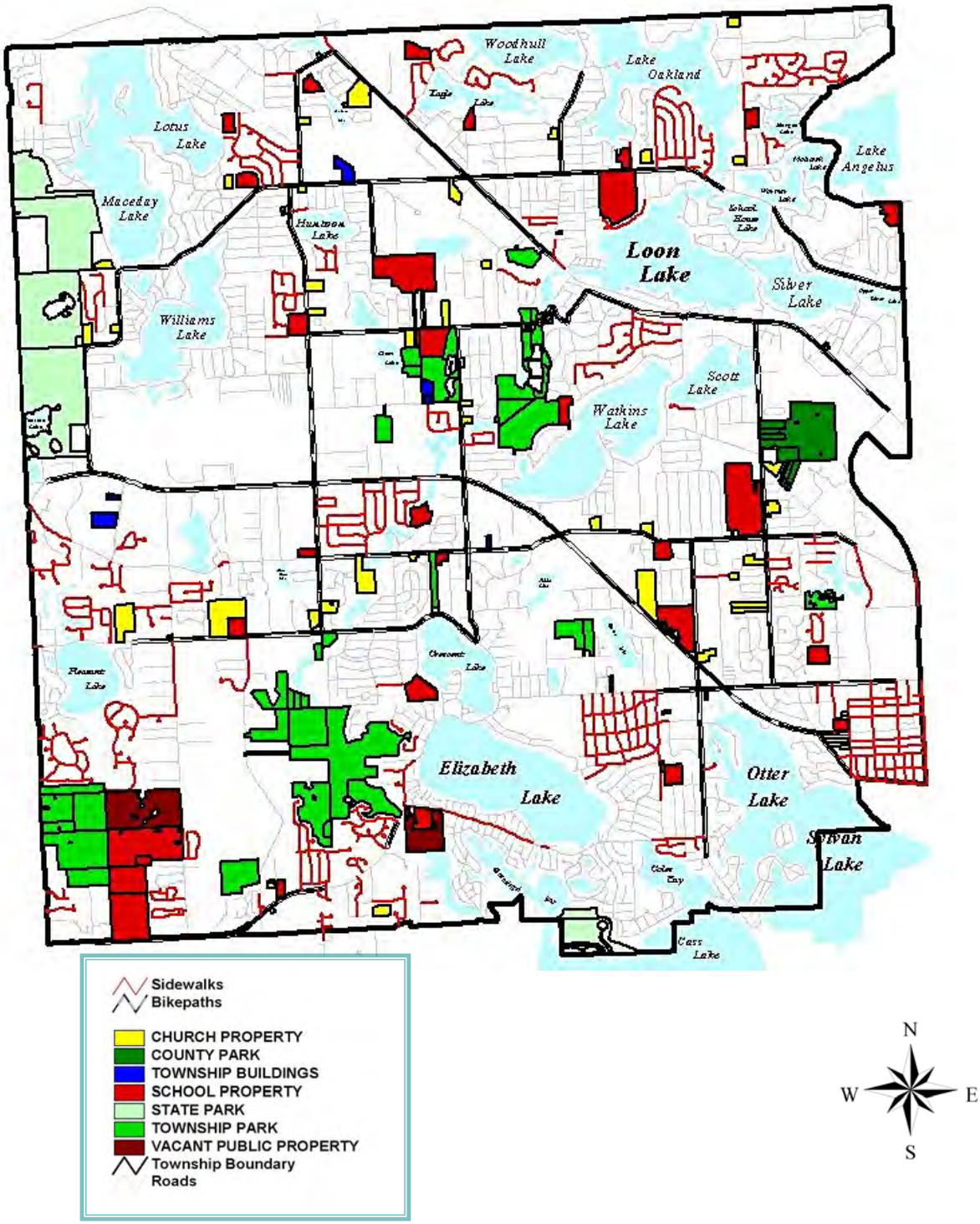
Nonmotorized Pedestrian Pathways - The Subcommittee also examined sidewalks and bike paths. The existing Township bike path and sidewalk networks can be seen on Map 4, which is shown on Page 7-9. This map demonstrates a substantial amount of existing nonmotorized pathways built in the Township, and the significant gaps which create barriers to Waterford's walkability.

The Subcommittee decided a goal should be to complete the nonmotorized path system. The Subcommittee also identified as goals finding a stable funding source to build new segments, eliminating the gaps in the existing pathway system, and maintaining the existing sidewalks and bikepaths.

Township Services - The structure and staffing levels of Township departments, as well as the existing condition of municipal buildings and equipment was reviewed by the Subcommittee. The Subcommittee stressed the importance of maintaining the existing level of service per capita over the next twenty years. In addition, it was recommended that proper evaluation procedures be developed to ensure staff has sufficient facilities and equipment to continue to provide these services efficiently and effectively.

(Please refer to the complete records of the minutes in Appendices B and G to review the details of the Subcommittee discussions.)

Map 4 Existing Nonmotorized Path System - 2002



Source: Waterford Township GIS and Community Planning & Development
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Goals & Objectives

The Subcommittee members concluded their review of capital improvements and municipal services by developing a list of proposed goals, objectives, and action items addressing their subject area. This list, in random order, was presented to the Master Plan Committee of the Whole and the Planning Commission, and was recommended for inclusion in the Master Plan. The final capital improvements and municipal services goals and objectives are listed in Table 1 below.

Table 7-1: Capital Improvements and Municipal Services

Goals	Objectives
Goal 1: Maintain and Enhance Existing Level of Fire Protection and Emergency Medical Services	▪ Continue the maintenance and update of Township fire hydrants ▪ Ensure effective fire fighting coverage of all areas of the Township ▪ Maintain existing level of Emergency Medical Services for Township residents ▪ Provide for future expansion of EMS services as the need arises
Goal 2: Maintain and Enhance Existing Level of Water and Sewer Services	▪ Continue the maintenance and update of water and sewer lines ▪ Ensure and enforce the installation of water line loop systems ▪ Continue to ensure that hydrants possess the water capacity and pressure necessary for fighting fires ▪ Develop and maintain a preventative water line maintenance and replacement schedule to be incorporated into the Township capital improvements plan
Goal 3: Improve the Storm Drainage System	▪ Fund and prepare a master storm drainage plan to evaluate the existing and future storm drainage capacity needs of the Township ▪ Investigate the feasibility of creating, funding, and implementing an administrative structure that provides an effective unified approach to managing and maintaining the Township's storm drainage system ▪ Ensure that maintenance and control of storm drainage from the Township's roads is incorporated into the master storm drainage plan ▪ Ensure that all new development and redevelopment projects are evaluated and constructed without overburdening the Township's storm drainage system

Goals	Objectives
Goal 4: Improve Roads Within the Township	▪ Investigate, develop, and fund a vibrant and proactive partnership between the Township and the public road agencies for improvements and maintenance of public roads in Waterford Township ▪ Develop and maintain an annual Township road capital needs review process
Goal 5: Expand and Improve Nonmotorized Paths (Sidewalks, Bike Paths, and Nature Trails)	▪ Develop, fund, and implement a master nonmotorized path construction and maintenance plan ▪ Construct connections between existing segments of nonmotorized paths ▪ Maintain and improve existing segments of nonmotorized paths
Goal 6: Improve and Enhance the Township's Power and Communication Utilities Infrastructure	▪ Install all overhead utility wires underground ▪ Ensure that utility companies possess the capacity to provide full and uninterrupted service for proposed land uses ▪ Plan for Township use of future utility technology and installation of the necessary infrastructure systems
Goal 7: Provide a Preventative Maintenance Schedule for all Township Buildings and Service Systems	▪ Ensure that all Township buildings provide a safe and effective environment for Township staff to deliver services to Township residents ▪ Develop, implement, and maintain a preventative maintenance schedule for Township facilities and equipment as part of the Township capital improvement plan ▪ Develop an annual Township buildings capital and maintenance needs assessment review process
Goal 8: Maintain and Enhance Existing Level of Township Services	▪ Provide the Township Board with an annual capital improvements plan analysis to assist the Board with programming new capital improvements as an integral component of the Township's annual budget while maintaining the necessary levels of Township services ▪ Benchmark existing levels of service to use in determining whether implementation of, or changes to, the community's capital improvements plan have a positive or negative effect

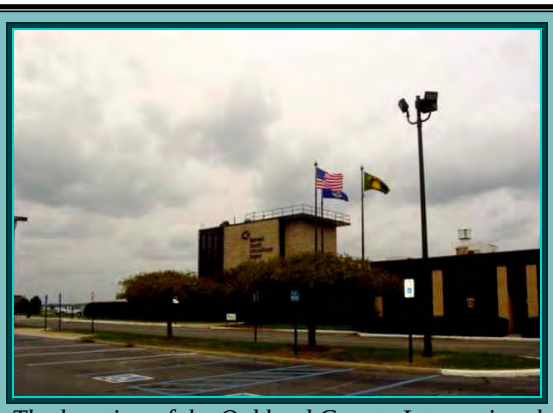
ECONOMIC DEVELOPMENT SUBCOMMITTEE

Subcommittee Members

- Scott Hudson, Chairman
- Perry Bowman
- Shawn David
- Scott Dougherty
- Bradley Jernigan
- Judy Kennedy
- Al Ruckey
- Ted Taylor

Staff Member

- Mark Kellenberger, Planner II



The location of the Oakland County International Airport in Waterford Township serves as an impetus for local and global economic development opportunities

Introduction

Economic development can be described as the means for creating and maintaining vitality in the business community. In actuality, economic development affects and is affected by many factors other than just business in Waterford Township. These factors are wide ranging and include demographics, education, zoning, land use, and quality of life. Therefore, any discussion involving economic development cannot just examine the condition of the business community.

How do these factors impact economic development? Examples of these influences include: the effects of demographics on the available workforce and customers; a quality school district can influence business location, the attraction of its workforce and the availability of job training for the labor force; zoning and land use can influence where businesses locate and how they are developed; and a community's quality of life can encourage homeownership, business location, and overall community pride. These simple examples demonstrate that no one part of a community is without influence on the community as a whole. Therefore, the Economic Development Subcommittee set out to examine the economic state of Waterford Township with awareness of the various factors that affect it.

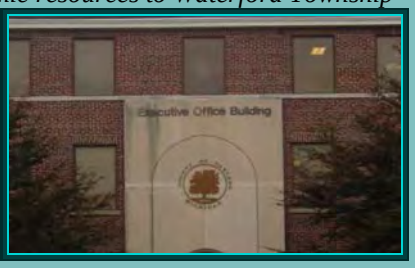
Subcommittee Review Process

The Economic Development Subcommittee met eight times over the course of four months (May through August 2001). The members of the Subcommittee represented a cross section of the population of Waterford Township and included business owners and business people that work and/or live in Waterford Township. They were able to share their experiences from Waterford as well as surrounding communities. The Subcommittee discussed topics relating to economic development and various invited guests made presentations to the committee. These meetings resulted in a greater understanding of the need for economic development activities in Waterford Township and the creation of the goals and objectives to guide those activities.

Mission Statement

The mission of the Economic Development Subcommittee was to conduct an assessment of current economic conditions in Waterford Township, investigate strategies for stimulating economic development, examine concepts dedicated to attracting new businesses while retaining the existing commercial base, and to create an environment that is conducive to sustaining desirable business activities. These efforts resulted in the culmination of ideas that were assembled into a report on the Subcommittee's findings and presented to the Master Plan Committee of the Whole and the Planning Commission.

The Oakland County Executive Offices provide quality partnership opportunities and many economic resources to Waterford Township



Meetings Summary

The topics of discussion coursed through the wide array of economic development tools and activities. The following is provided as a synopsis of the topics that were discussed, including a list of possible economic development tools. These discussions ultimately led to the development of the goals and objectives of the Economic Development Subcommittee.

Through discussion, the Economic Development Subcommittee found that one thing all communities must embrace is the concept of consistent policies and procedures. When business representatives approach Waterford Township, they must be assured that the ordinance procedures they must follow are consistently applied. When inconsistencies appear within the procedural steps, it is no longer attractive for business to cooperate with the community, creating an adversarial relationship between the business community and the Township. In conjunction with consistent policies and procedures, Waterford Township must continue to provide competent staff assistance to guide business owners through the process.

Several economic tools created by the State Legislature could be investigated by the Township to spur smart, sustainable economic development within Waterford Township. For example, a popular economic development tool is the Brownfield Redevelopment Authority. This tool provides incentives to developers for redevelopment efforts on properties that are unattractive due to real or perceived contamination levels. This has proven to be an effective tool in many Michigan communities.

Another tool that has been widely used is the Downtown Development Authority (DDA). Some of the functions of a DDA include the levying of taxes, issuance of bonds, and captured tax dollars that can be used for improvements within the DDA boundary. This is a tool that must be coordinated with and approved by both State and County agencies prior to its implementation, and it must also be coordinated with any taxing authority that falls within the DDA boundary. Other Oakland County communities have implemented DDA's and have been able to do extensive redevelopment projects for traditional downtown and commercial corridor redevelopment.

Tax Increment Financing (TIF) is an economic development financing tool that allows a local government to freeze the tax base for other taxing authorities within a specific development area. The revenues that are generated in excess of the base assessment can then be used to finance improvements within the district. This tool is most often used as an extension of the Brownfield Redevelopment Authority and the Downtown Development Authority.

Many other items influence economic development such as communication facilities that will allow business to transmit information safely and efficiently, and a transportation system that allows members of the workforce to acquire jobs that they may not otherwise be able to consider.

In addition to those tools previously cited, the following could also be investigated and utilized by Waterford Township:

- Economic Development Policies and Procedures
- Economic Development Staff Member
- Small Business Programs
- Business Incubators
- Business Registry
- Tax Abatements
- Business Attraction
- Business Retention
- Automation Alley
- Marketing Assistance
- Smart Zones
- Business Association
- Chamber of Commerce
- Industrial Revenue Bonds
- Empowerment Zones
- Economic Development-Sensitive Zoning and Land Use
- Local Development Finance Authority
- Business Improvement District
- Principal Shopping District

(Please refer to the complete records of the minutes in Appendix C to review the details of the Subcommittee discussions.)

Goals and Objectives

The Subcommittee members concluded their review of economic development by developing a list of proposed goals, objectives, and action items addressing their subject area. This list was presented to the Master Plan Committee of the Whole and Planning Commission, and recommended for inclusion in the Master Plan. The final economic development goals and objectives are listed in Table 2 below.

Table 7-2: Economic Development

Goals	Objectives
Goal 1: Create an Environment Conducive to the Attraction, Retention and Expansion of Businesses	▪ Develop, fund, and implement staff capacity to facilitate economic development activities and programs ▪ Develop consistent and friendly Township policies and procedures ▪ Provide safe, high speed internet access and communication systems ▪ Develop and maintain an inventory and analysis of economic conditions in Waterford Township ▪ Identify areas within the Township to focus economic development efforts ▪ Encourage businesses to relocate in areas that are appropriately zoned and that allow for expansion of the building footprint
Goal 2: Market Waterford Township as a Destination for Business Activities	▪ Develop, fund, and implement staff capacity to facilitate economic development activities ▪ Identify and establish partnerships (public/private and public/public) to expand and promote economic development in Waterford ▪ Coordinate Township planning efforts with the Oakland County Planning and Economic Development Services, the Oakland International Airport, and the State of Michigan Economic Development Corporation ▪ Coordinate Township planning efforts with the Waterford Chamber of Commerce
Goal 3: Educate and Inform All Township Boards, Commissions, Committees, and Authorities on Economic Development Tools and Efforts	▪ Develop and disseminate detailed information sheets of the various economic tools available in Waterford Township ▪ Expand staff information resource gathering to gain knowledge and awareness of innovative techniques regarding economic development ▪ Develop a partnership with the Waterford business community to educate business owners on the value of economic development

EDUCATION & PUBLIC SERVICES SUBCOMMITTEE

Subcommittee Members

- Ellie Pinner, Chairperson
- Linda Bellehumeur
- Pat Birchfield
- Bette Hartmann
- Nancy Leipold
- Dennis Pittman
- Chris Shoemaker

Staff Member
- Mark Kellenberger, Planner II

The Waterford School District is anchored by the administrative offices located at the intersection of Pontiac Lake Road and Airport Road

Introduction

The topic of education and public services is expansive and must account for the private and public education systems, facilities, programs, and the services that are provided to the residents of Waterford Township by various civic groups and organizations. Overall, Waterford is well served by the current educational system and its service organizations. However, deficiencies exist that must be addressed to overcome gaps in the current level of service.

Subcommittee Review Process

The Education and Public Services Subcommittee met eight times over the course of four months (May through August 2001). The members of the Subcommittee represented a cross section of Waterford Township's population. They were able to share experiences from Waterford as well as surrounding communities to use as examples. The Subcommittee discussed topics relating to education and public services and was fortunate to have several members of the public, service and educational sectors make presentations and discuss issues and concerns relating to the Township. The Subcommittee surveyed a partial list of the service organizations in Waterford Township to identify services that are currently provided, any assistance or aid needed, and any deficiencies in the current system.

Mission Statement

The mission of the Education and Public Services Subcommittee was to identify, inventory and assess the existing educational resources and public services available within Waterford Township; focus on the prominent services and features within the system; identify any deficiencies or shortcomings that may exist; provide an analysis of the existing systems; offer recommendations to eliminate any identified deficiencies and provide new and expanded services and educational opportunities; and prepare a report on the Subcommittee's findings for review by the Master Plan Citizens Committee of the Whole and the Planning Commission.

Meetings Summary

There was an expansive list of topics discussed at the eight meetings of the Education and Public Services Subcommittee. The findings of the Subcommittee ultimately led to the development of the goals and objectives for education and public services. The following is a synopsis of the Subcommittee's findings.

Education - The Highland Lakes Campus of Oakland Community College, located within Waterford Township, provides college opportunities. The existing public school system is served by one early childhood center, fifteen elementary schools, one special education center, three middle schools, two high schools, and two alternative high schools *(please refer to Maps 5, 6, and 7 on Pages 7-19 through 7-21)*. In addition to educational programs, the school district provides many other support services such as career, family, and senior programs. The private school system is difficult to document because the schools are established by a number of separate organizations. There is no single clearinghouse from which to gather comprehensive statistical information on these schools. From current Township records, there are nine private schools within the Township that provide elementary, middle and high school opportunities.

Public Services - The public service segment of Waterford Township is less documented than the school system. There is not a registry for, nor a complete list of, service organizations within Waterford Township. The Subcommittee created a partial list of service organizations, and a brief questionnaire was developed to identify characteristics and issues pertaining to the different organizations. This survey questionnaire was then distributed to the various organizations so that their comments could be included in the Education and Public Services chapter of the Master Plan.

Public service organizations provide quality recreational and social programs to the community

Deficiencies or needs of the various service organizations identified in the survey responses and discussed during the presentations to the Subcommittee are:

- A community recreation center
- Services to adolescents (such as Safe House, Skate Park)
- An indoor community pool
- Senior transportation
- Mass transportation
- Assistance with marketing, publicity and public relations
- More staffing and/or volunteers
- Expanded social programs
- Public service education
- Better cooperation, communication, and collaboration between Township programs and community groups and among the community groups themselves
- Lack of space for service organizations and events
- Funding sources

The Subcommittee identified that in addition to the different service organizations, churches provide many services to the community and should also be recognized. Based on information collected by Township staff, there are 48 churches of various denominations within Waterford Township. Surveys were sent to the Waterford Ministerial Association and 12 area churches. No surveys were returned, pointing to the fact that the relationship between Waterford Township government and these important community assets must be strengthened.

Cultural Planning[1] – The Subcommittee identified the lack of cultural planning in Waterford. Cultural planning is a structured, community-wide fact finding and consensus-building process to assess community needs and develop a plan of action that directs arts and cultural resources to address those needs. Cultural planning is undertaken on a large geographic scale to benefit the broader community, not just a single organization or constituency. While such planning may focus on specific requirements of artists, arts organizations and audiences, increasingly, communities are using cultural planning to address more widespread issues, such as education and economic development. Where the interests of the arts intersect other community sectors – notably, education, urban design, historic preservation and cultural tourism – cultural planning affects the larger civic community. Through planning, community leaders can determine ways to encourage artists, strengthen nonprofit organizations, and develop new cultural solutions to problems in their communities, and enable a community to have a sense of place with a sense of direction. Cultural plans may involve:

- Artists
- Art audiences
- Arts education
- Arts facilities
- Community development
- Economic development
- Festivals
- Financial support for arts
- Historic preservation
- Literature
- Multiculturalism
- Cultural accessibility
- Performing/Visual arts
- Public art
- Revitalization
- Public events
- Tourism
- Urban design

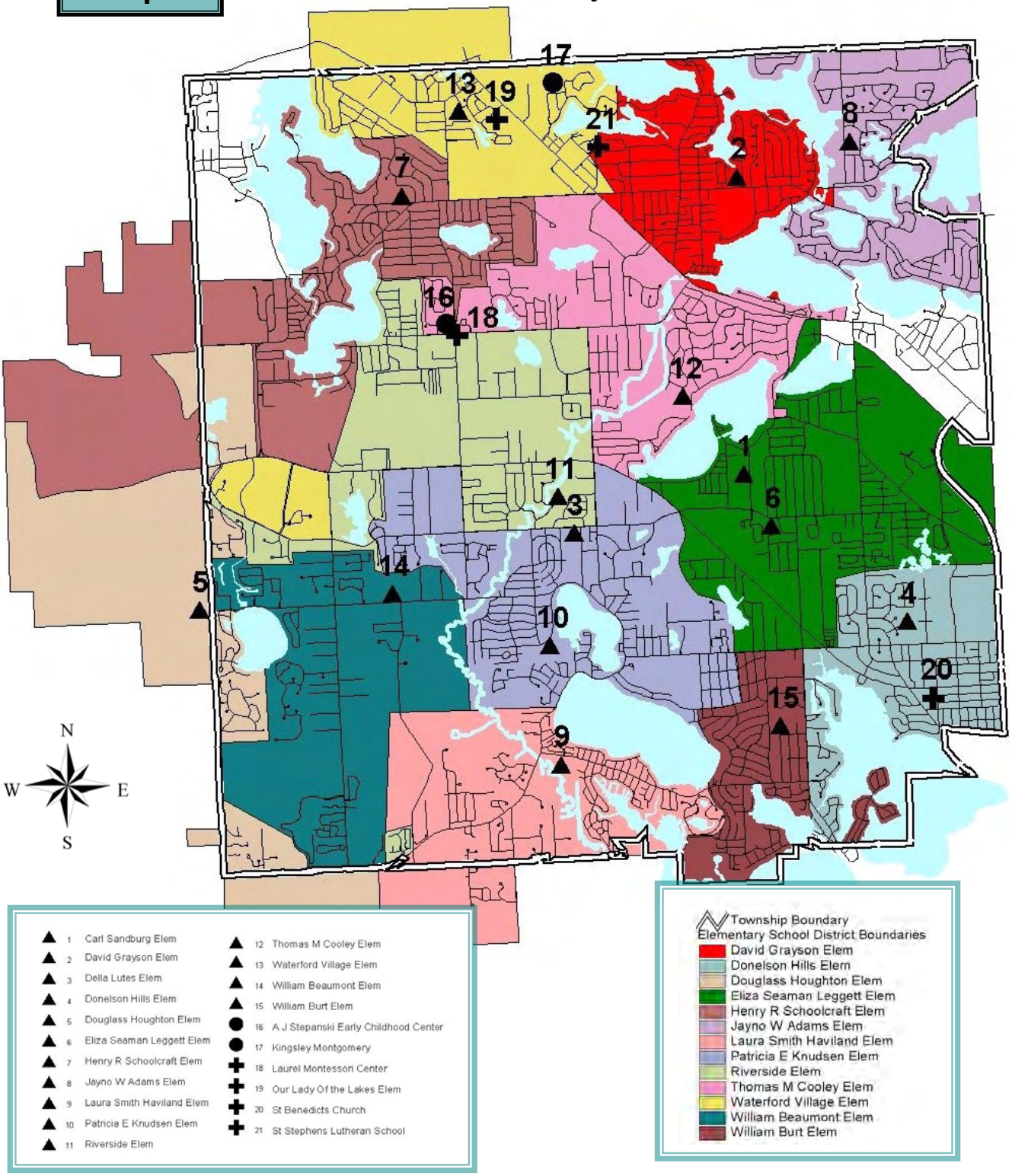
The Subcommittee concluded that governmental and public service agencies should actively implement cultural planning as a goal of this Master Plan.

[1]*Reference: Dreeszen, Craig, Community Cultural Planning: A Guidebook for Community Leaders 1998*

(Please refer to the complete record of the minutes in Appendix D to review the details of the Subcommittee discussions.)

Map 5

Waterford Elementary School Districts



Source: Waterford Township GIS and Community Planning & Development
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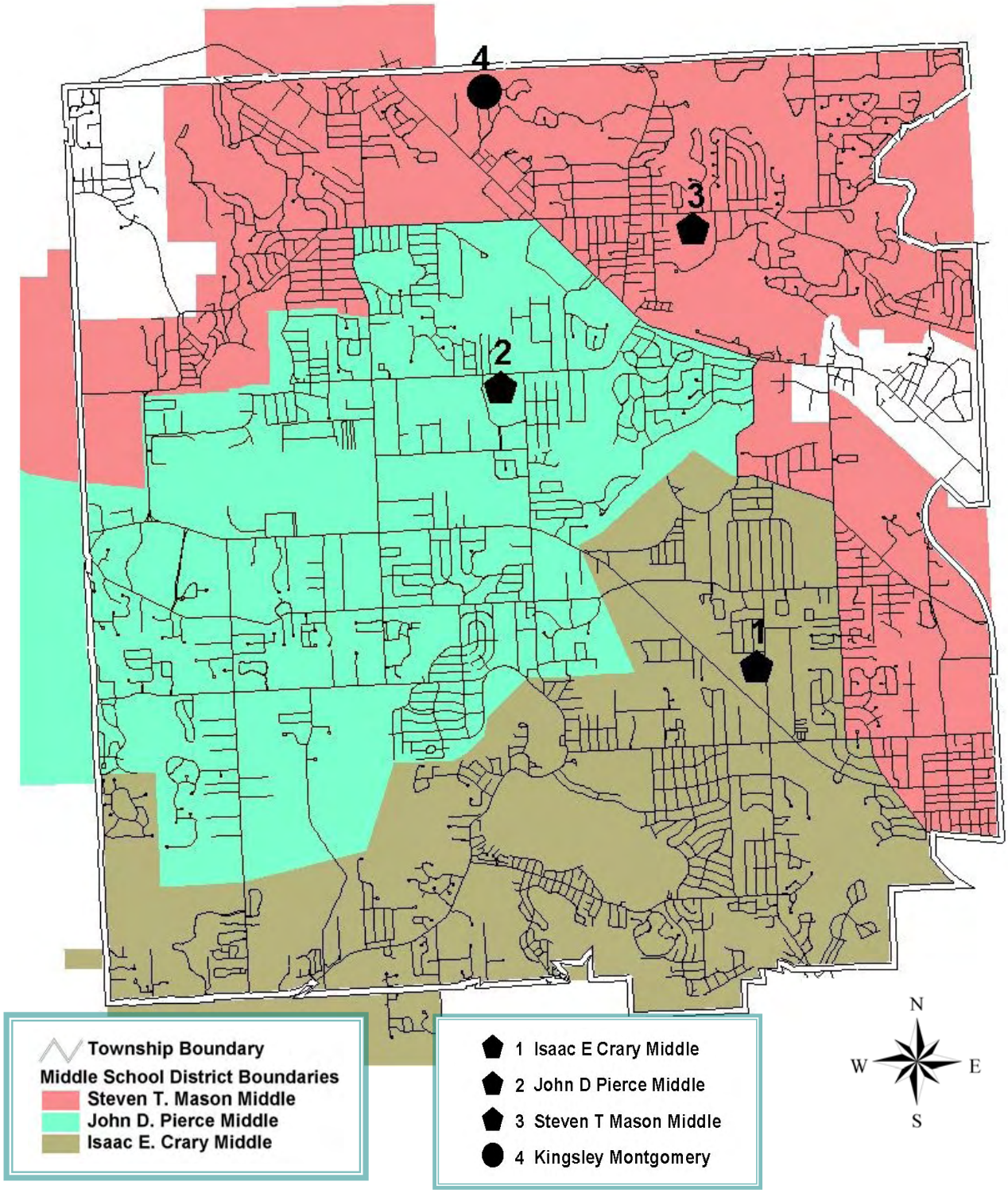
Map 6 Waterford Middle School Districts



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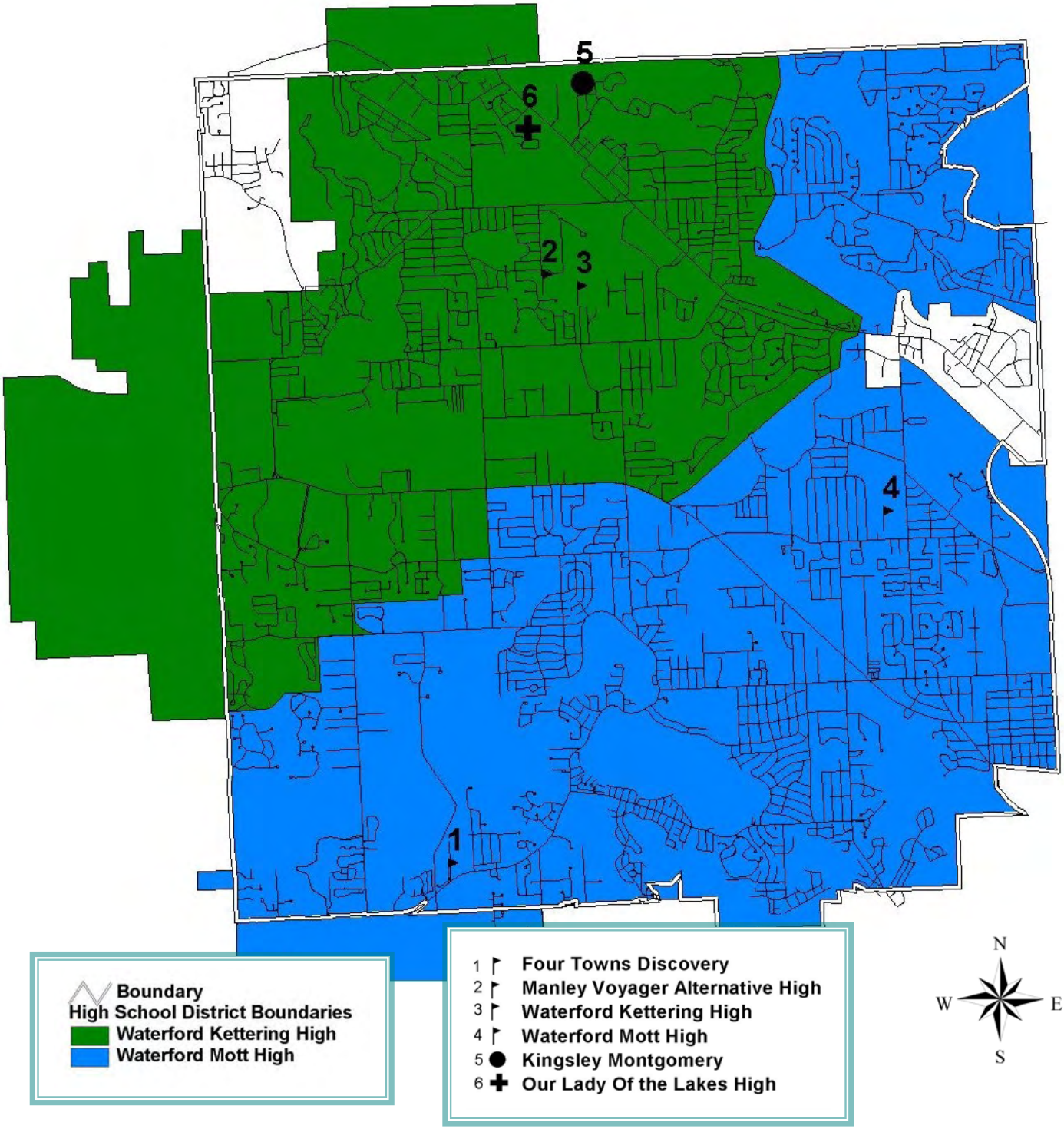
Map 7 Waterford High School Districts



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Goals and Objectives

The Subcommittee members concluded their review of education and public services by developing a list of proposed goals, objectives, and action items addressing their subject area. This list was presented to the Master Plan Committee of the Whole and the Planning Commission, and was recommended for inclusion in the Master Plan. The final education and public service goals and objectives are listed in Table 3 below.

Table 7-3: Education & Public Services

Goals	Objectives
Goal 1: Assist Service Organizations Expand and Market Programs and Services	▪ Compile, maintain, and promote the list of service organizations that serve Waterford ▪ Develop and implement an information gathering and dissemination process to inform new Waterford residents of the community's service organizations ▪ Develop an outreach program to identify and inform new Waterford residents ▪ Eliminate public service deficiencies within the area
Goal 2: Provide More Recreational Opportunities to the Citizens of Waterford Township (overlaps with Recreation and Open Space Subcommittee Goals and Objectives)	▪ Construct a Township recreation center facility to serve current and future recreational needs ▪ Construct an indoor pool facility for use by all Waterford residents ▪ Maintain and expand pedestrian pathways throughout the Township ▪ Preserve the area currently occupied by the Drayton Plains Nature Center as a nature center ▪ Provide activity and meeting space for community groups and service organizations
Goal 3: Strengthen and Continue the Communication and Relationship between Service Organizations, Waterford School District, Private School System, and the Township	▪ Explore existing models of cooperative public service through organizations such as the Michigan Township Association ▪ Coordinate public relations and cultural planning efforts between participating agencies and organizations

ENVIRONMENT SUBCOMMITTEE

Subcommittee Members

- Bette O'Shea, Chairperson
- Bob Chase
- Mary Ellen Krakauer
- Joyce Lemond
- Frederick Poehlman
- JoAnn Salfi

Staff Member
- Amy Noel, Planner I

View of Clinton River looking south from the M-59 Bridge

Introduction

Waterford possesses a diverse ecosystem with a river system, numerous lakes, and significant wetlands. They must continue to be protected to ensure that our economic development goals are balanced with our environment goals *(please refer to Map 8 on Page 7-26)*.

The environment influences many issues, including land use, housing, utility location, commerce, tax base, and capital infrastructure. It is a critical issue affecting the quality of life of Waterford Township residents.

Subcommittee Review Process

The Environment Subcommittee met once a month over the course of five months (April through August 2001). The members of the Subcommittee represented a cross section of Waterford Township's population and included people who live on the Clinton River and lakes, and others concerned with population, housing density, and the degradation of the Township's natural resources.

The Subcommittee discussed topics relating to the environment such as lake and water quality, the Clinton River, wetlands, woodlands, groundwater protection, wellhead protection, contaminated sites, open space, environment/economic balance, conservation, the future of the Drayton Plains Nature Center, natural resource area preserves, greenways, and nonmotorized trails.

Subcommittee members chose topics relating to the environment and were given a contact list of local and state professionals in the chosen field. During subsequent meetings, members reported on the information they gathered and discussed current topic issues that they gathered through this process. Guest speakers were asked to give presentations on specific topics as identified by the Subcommittee. The result was an enhanced understanding of the environment and its relationship to many aspects of community life. Because the environment influences so many facets of the community and the way it develops, the Subcommittee identified a diverse set of major topic areas that define the character and direction of future development in the Township, while enhancing our natural resources. These topics include limiting development to the natural capacity of the land, which includes restricting development in areas with limiting soil conditions and lack of supporting infrastructure. The Township should maintain the quality of existing natural resources so that these ecosystems can continue to provide areas for recreation and essential environmental functions, such

as stormwater management and groundwater recharge. Furthermore, the Township should work towards enhancing and restoring those existing natural resources that have suffered degradation.

Related to the environment and the residents' quality of life is the Oakland County International Airport, located on M-59, between Airport Road and Williams Lake Road. The Airport has been a source of contention with some residents regarding issues such as hours of operation, and implementation of the completed Federal Aviation Agency noise study recommendations. It should be noted that the Airport has actively sought to address and minimize the negative impact of these environmental factors. The Airport has shared with the Township a desire to be proactive in forging a good cooperative relationship with residents. It is important for the Township to continue taking a proactive role in influencing decisions regarding Airport issues that affect its citizens.

The Nature Conservancy staff visit Elizabeth Lakes Woods in early spring

Mission Statement

The mission of the Environment Subcommittee was to review and inventory the Township's natural environment, investigate means of preserving and enhancing the environment, to discuss and determine the most effective tools for protecting the environment, and to prepare a report on the Subcommittee's findings, environmental priorities, and proposed action items for review by the Master Plan Committee of the Whole and the Planning Commission.

Meetings Summary

There was much discussion and many topical presentations were made at the five meetings of the Environment Subcommittee. Meetings covered an array of development tools, techniques, and land stewardship practices, including areas in the current Waterford Township Zoning Ordinance that need clarification or revisions, so that they may be more effective in their objective of land protection.

The following is a synopsis of the major findings of the Environment Subcommittee. These findings ultimately led to the development of the goals and objectives by the Environment Subcommittee.

<u>Ordinances</u> - Waterford Township has many ordinances designed to protect or enhance the environment, including wetlands protection, woodlands preservation, and natural feature setback ordinances. Wetland and woodland ordinances should be carefully examined and rewritten, if necessary, to prevent confusion about what was intended by the ordinance.

Development options such as cluster and open space are currently available under the Zoning Ordinance. Open space and cluster provisions that allow development to occur while minimizing the impact on the area's natural features should be required in all new developments that fall within the Open Space Overlay District. Furthermore, the township should provide tools necessary to allow for increased density when open space is provided for in the proposal.

Many ordinance provisions are either outdated, or are not being utilized by the development community. This existing situation provides evidence that these ordinances need to be revised, and/or stronger incentives need to be provided so that developers take advantage of land protection options. These options should be consistently applied to the commercial and residential sectors.

Tools - Several tools and studies exist, both locally and nationally, which the Township should investigate and use to enhance protection of natural resources. Beyond the environment's impact on the basic quality of life for residents, environmental quality is also related to effective economic development and the vitality of the community. Businesses locate in communities where employees desire to live. A healthy community, short commute, access to amenities (such as trails, bike paths, parks, nature preserves, and recreational facilities), and the ability to walk for fun, fitness, and quick errands are fundamental to the health of the business environment and employee retention.

Inventories/Studies - In order to be more effective in the protection and enhancement of the Township's natural resources, a number of studies and inventories can be used as baseline documents. Many current natural resource surveys are available, and have been used by the Township to develop its inventory of natural areas. These studies include a survey of remaining natural areas recently completed by the Michigan Natural Features Inventory for the Oakland County Planning and Economic Development Services Division. The survey was developed using recent aerial photography, topographic and land use information and was used in compiling the information for Map 8 on Page 7-26.

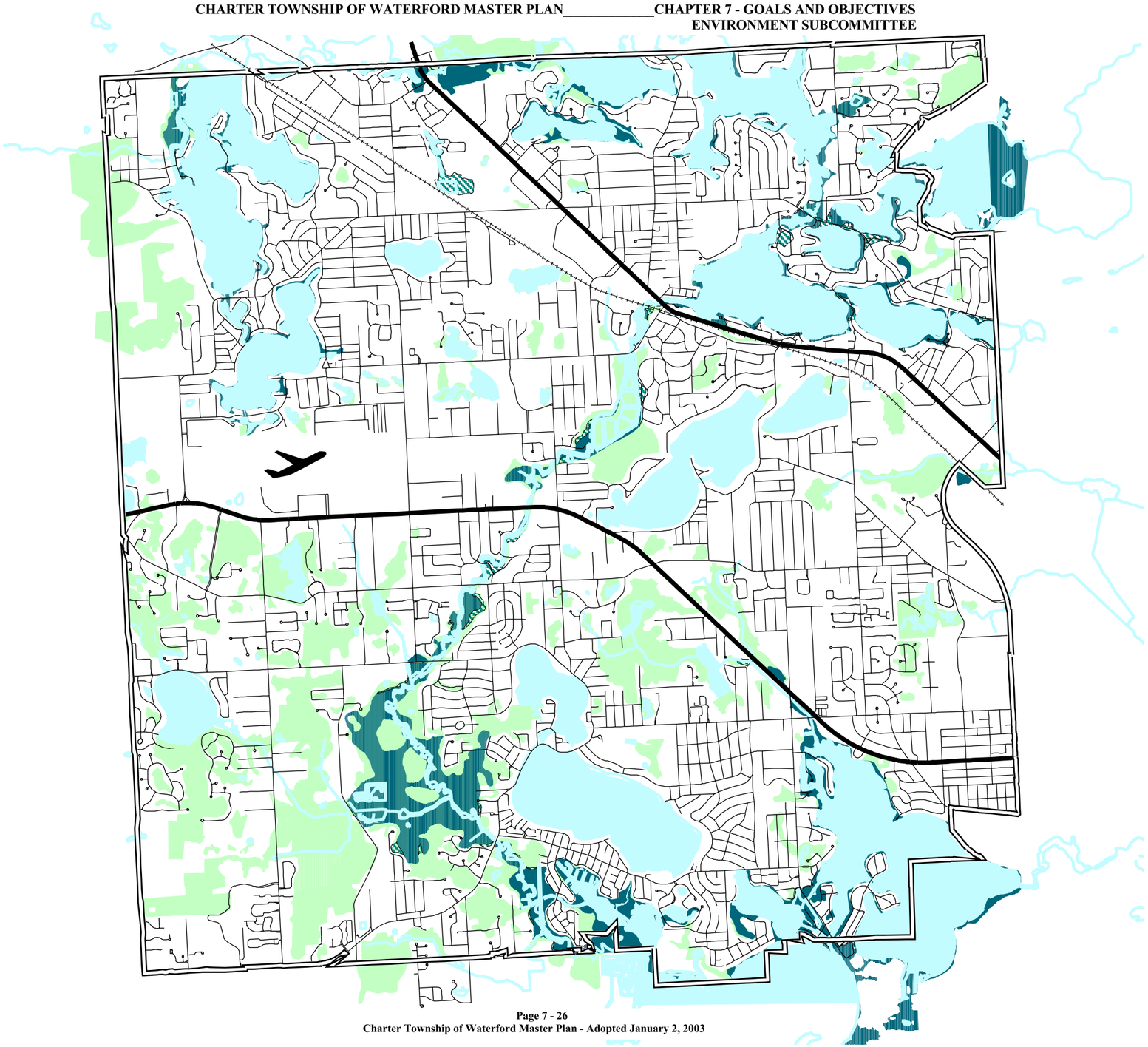
The following information is a sample of data that is readily available through the Township's GIS Department and should be integrated into the review of all site plans.

- Wetlands inventory
- Woodlands inventory
- River and drainage network/basins
- Natural areas survey
- Flood plain maps
- Topographical data
- Wetland Soils information
- Wellhead Protection Areas

Other inventory information and tools that could be utilized by Waterford Township include:

- Assessment of the quality and function of remaining wetland systems
- Uplands inventory
- Michigan Natural Features Inventory (Threatened & Endangered Species)
- Conservation Easements
- Better site design techniques
- Updated stormwater and best management practice designs
- Open space preservation and linkages
- Adopt-a-Stream river monitoring
- Development suitability study
- Stormwater management plan
- Soil erosion management plan
- Greenways/trailways plan
- Park and conservation area stewardship

(Please refer to the complete record of the minutes in Appendix E to review the details of the Subcommittee discussions.)



Waterford Township Master Plan

SENSITIVE NATURAL RESOURCE AREAS

Legend

Lakes
Clinton River
Natural Resource

FEMA Flood Prone Areas
100 Year Flood Plain
500 Year Flood Plain

Township Boundary
Major Roads
Roads
Railroad

N
W E
S

This map is intended to provide general information only. For more detailed map information on the topic of this map, please visit the Charter Township of Waterford web site at www.twp.waterford.mi.us or contact the Community Planning & Development Department at (248) 674-6256.

Source: Waterford Township Community Planning & Development Department

Map #8

January 2, 2003

Goals and Objectives

The Subcommittee members concluded their review of the environment by examining several recent studies and handbooks on resource preservation with the assistance of staff and guest speakers. The document found to be the most encompassing of the Subcommittee's chosen topic areas was the *Shiawassee & Huron Headwaters Resource Preservation Project*[1]. The model land use policies compiled in this document served as a basis for developing a list of proposed goals, objectives, and action items addressing environmental issues. This list was presented to the Master Plan Committee of the Whole and the Planning Commission, and was recommended for inclusion in the Master Plan. The final environment goals and objectives are listed in Table 4 below.

Table 7-4: Environment Subcommittee

Goals	Objectives
Goal 1: Land Use Intensity Ensure Quality Development Practices by Establishing Regulations that Govern Land Use Based on Natural Capacity of the Land, Including Infrastructure Improvements	▪ Require the evaluation of the availability of water and sewer service to determine the level of development intensity ▪ Call for low intensity land uses to be located where natural resource conditions are least capable of supporting development, where existing roads are inadequate, and where existing low density land uses patterns currently exist ▪ Establish medium intensity uses in locations where natural resource conditions are moderately capable of supporting development, adequate roads are accessible, and existing medium density land use patterns exist ▪ Encourage high intensity uses to be located near major thoroughfares and state highways, where sanitary sewer and water service is available, where medium to high density land use patterns currently exist, and where natural resource conditions will be least impacted by development

Goals	Objectives
Goal 2: Natural Resource Capability: Ensure All Development Efforts Respect and are Sensitive to Preserving and Protecting Waterford's Natural Characteristics and Constraints	**2A: Wetlands** ▪ Continue and expand the protection of wetlands in order to preserve water quality, stabilize stormwater runoff, recharge groundwater, and provide fish and wildlife habitat. The highest priority is for the preservation of wetlands in their natural state ▪ Recognize, establish, and enforce the wetland boundary, buffer, and drainage pattern components as part of Waterford's wetland protection efforts **2B: Woodlands** ▪ Conserve woodlands to protect water and soil quality, increase air quality, buffer noise pollution, moderate local climate and storm hazards, preserve wildlife habitats, and preserve aesthetic values and community beauty ▪ Promote the preservation, protection, and diversification of trees and vegetation throughout the Township ▪ Encourage the use of native plant material to minimize the hazardous effects of invasive species **2C: Slopes** ▪ Encourage the preservation of natural contours rather than alteration through mass grading ▪ Require the careful planning of slopes to reduce erosion, maintain stability, and control amounts and velocities of storm water runoff **2D: Groundwater Protection and Recharge** ▪ Sponsor and promote county and regional cooperation to effectively manage and protect Waterford's groundwater system ▪ Require the preservation and protection of groundwater recharge areas as open space or low density uses to retain as much of the permeable surface and water holding characteristics as possible ▪ Promote and enforce the protection of groundwater recharge areas from pollution through the regulation of land uses that discharge wastes into the hydrological cycle

Goals	Objectives
Goal 2 (cont.): Natural Resource Capability: Ensure All Development Efforts Respect and are Sensitive to Preserving and Protecting Waterford's Natural Characteristics and Constraints	**2E: Stormwater Management and Drainage** ▪ Ensure the maintenance, capacity, and quality of the storm drainage system through utilization of best management practices (BMPs), as defined by the Michigan Department of Environmental Quality (MDEQ) ▪ Promote the preservation of natural vegetation and topographical features along stream corridors and waterways through the restriction of land uses to those which offer little danger of topographical disturbance to the corridor, degradation of water quality, increased runoff, sedimentation, or stream channel alteration ▪ Encourage and promote the restoration and enhancement of natural vegetation and topographical features along stream corridors and waterways ▪ Monitor and control surface water runoff to prevent overloading of streams and long-term erosion resulting from uncontrolled, high velocity discharges, and to promote runoff rates that occur under existing, undeveloped conditions ▪ Educate the community on the care and use of herbicide and fertilizer sprays to preserve and protect stream corridors, waterways, and the natural drainage and runoff pattern associated with them **2F: Natural areas** ▪ Develop and maintain natural area inventories that include assessments for quality, location, health, and species surveyed through the Michigan Natural Features Inventory or other agencies ▪ Regulate, preserve, and protect the natural areas essential to maintaining Waterford Township's unique heritage and character, and for providing high-quality and diverse wildlife habitat ▪ Encourage the restoration and enhancement of natural areas to preserve and increase environmental quality ▪ Ensure that the protection and management of identified natural areas and related natural systems are consistent with recommendations of pertinent reports and studies generated from resource inventories

[1] Oakland County Planning and Economic Development Services. Shiawassee & Huron Headwaters Resource Preservation Project, March 2000, Pages 110-113.

RECREATION AND OPEN SPACE SUBCOMMITTEE

Subcommittee Members

- Sandra Werth, Chairperson
- John Andrews
- Jan Eathorne
- Dennis Griffin
- Leo Landry
- Donald Ukrainec

Staff Member
- Amy Noel, Planner I

Historic barns, farm animals, pavilions and the newly constructed handicap accessible playground are just a few amenities located at the 200-acre Hess Hathaway Park.

Introduction

Recreation and preservation of open space are important quality of life issues to the residents of Waterford Township. Waterford is a community of over 73,000 people, located in the center of Oakland County, and covers approximately 35 square miles. Waterford has an abundance of water resources, including 34 lakes and the main branch of the Clinton River. Due to the numerous lakes, Waterford developed first as a farming community, then as a summer vacation destination with cottage-style homes occupying the lakefronts and adjacent neighborhoods between the 1920s and the early 1950s. During these phases of development, Waterford contained large expanses of open space where one of the primary land uses was summer recreation.

The next wave of development, beginning in the 1950s, was the conversion of the summer residences into year-round residences. New residential development, both single-family and multiple-family occurred during this time and continued at an increasing rate through the last half of the twentieth century. Running parallel to this residential growth was an expansion of commercial and industrial development during the 1970s and 1980s along two of the State highways, M-59 and Dixie Highway. This phase of development was accompanied by the initial efforts to establish a Township park system in order to preserve some open space and provide recreational opportunities for the growing community.

Currently, Waterford is entering a third phase of development focused on redevelopment of its commercial corridors and efforts by developers to create new housing on the few remaining undeveloped parcels. This development phase presents challenges to the Waterford community in the form of preserving open space and ensuring that there are sufficient recreation lands available to provide the quality of life expected by the citizens. The Recreation and Open Space Master Plan Subcommittee was organized to discuss and review these issues which are important to the overall health and general welfare of Waterford Township.

Like many communities in Oakland County, Waterford Township is striving to balance the development needs of the community with the preservation of open and recreational spaces. While the Township has a number of parks offering a variety of passive and active recreational opportunities, there are still several areas where these opportunities can be enhanced through the acquisition of additional property and the improvement of some of this property for active recreational use *(please refer to Map 9 on Page 7-33)*. As Waterford matures through the community life cycle, policies and program services that address the residents' recreational needs will help in assuring that Waterford remains an attractive community for future generations.

Subcommittee Review Process

The Recreation and Open Space Subcommittee met five times over the course of four months (May through August 2001). The members of the Subcommittee represented a cross section of Waterford Township's population. The Subcommittee discussed topics relating to recreation such as the available Township, County and State parks, public school playgrounds, athletic fields, as well as the numerous private recreation opportunities. The Subcommittee also reviewed Waterford's existing park network, parkland distribution, and the activities offered. Information was gathered about existing conditions, population, demographic changes, visioning workshops, land use exercises, residential surveys and interviews with key community persons. Many of the Subcommittee members also participated in a walkability study of Waterford conducted by the Township. The Subcommittee meetings were focused on exploring the diversity and distribution of park recreation areas, and the preservation of natural open space areas.

Waterskier enjoying a summer day on Watkins Lake

Mission Statement

The mission of the Recreation and Open Space Subcommittee was to review and inventory the Township's dedicated recreational areas and the current Recreation Plan, to investigate means of preserving and enhancing the Township's open space, and to discuss and determine the most effective tools for protecting these resources.

Meetings Summary

The following is a synopsis of the Subcommittee's review and discussions. These discussions and review ultimately led to the development of two sets of goals and objectives for review by the Master Plan Committee of the Whole. One set of goals and objectives relates to recreational activities and the other set relates to open space preservation.

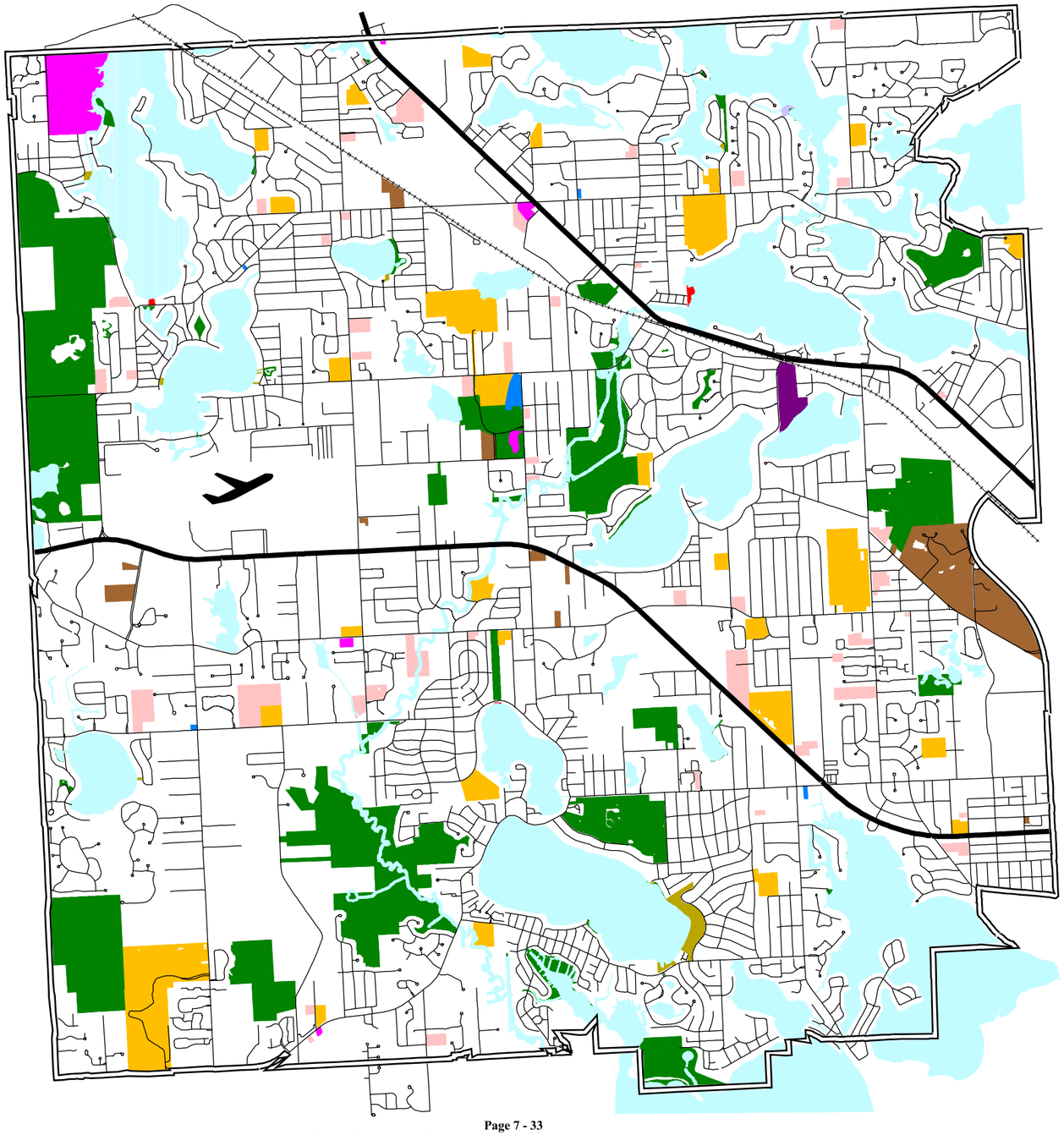
Waterford Township is home to numerous and varied public and private recreational opportunities. There are currently fourteen Township-owned parks, covering approximately 640 acres, as well as State and County-owned recreational facilities. The current Recreation Master Plan was completed in 1997 and is undergoing review as part of this Master Plan process. The current Recreation Master Plan documents the existing park and recreational facilities available to Township residents. The park component of the Recreation Master Plan identified a list of goals summarizing public desire to fulfill and expand the increasing recreational needs of the community. The Recreation and

Open Space Subcommittee identified many of the same concerns and goals for the recreational needs of the community, as well as promoting ideas on open space preservation.

The Subcommittee considered ways in which Waterford, Oakland County's most populated township, could actively pursue the preservation of open space in new developments. Estimates of developed area put Waterford in the ninetieth percentile range, and consequently, there is little natural area left to protect. However, Waterford is fortunate to have beautiful and rare natural areas that should be given priority in establishing conservation areas. One such example of open space protected by the Township is the Elizabeth Lake Woods Conservation Area, located between Elizabeth Lake Road and Cooley Lake Road. The Clinton River flows through this nature preserve, which is home to rare and endangered species, important riparian wetlands, and forested uplands. Studies continue to support the need for open and natural spaces in promoting the overall health and vitality of a community. Parks, open space, and nature preserves positively impact surrounding property values, provide great economic benefits by attracting and retaining businesses and residents, help protect our water quality, and regulate the quantity of storm water runoff.

The Subcommittee members concluded that Waterford Township has a small window of opportunity to take steps to ensure that its remaining, high quality natural areas are protected and preserved. Results of surveys and workshops continually express the residents' interest in protecting our natural areas and making Waterford a place where people want to live and take pride in their community.

(Please refer to the complete records of the minutes in Appendix F to review the details of the Subcommittee discussions.)



Waterford Township Master Plan

PUBLIC AND CONSERVATION LANDS

Legend

- Parks & Conservation Areas
- School Property
- Public Boat Access
- Private Beach
- Other Public Buildings
- Cemetery
- Church
- Institutional
- Township Fire Station
- Twp Water Pump Station

- Township Boundary
- Major Roads
- Roads
- Railroad

N W E S

Source: Waterford Township Community Planning & Development Department

Map #9

January 2, 2003

Goals and Objectives

The Subcommittee members concluded their review of recreation and open space by developing a list of proposed goals, objectives, and action items addressing their subject area. This list was presented to the Master Plan Committee of the Whole and the Planning Commission, and was recommended for inclusion in the Master Plan. The final recreation and open space goals and objectives are listed in Tables 5 and 6 below.

Table 7-5: Recreation Activities

Goals	Objectives
Goal 1: Retain and Enhance Waterford's Unique Character	▪ Promote Waterford Township as a "livable community"; a place in which to work, live, and play, surrounded by lakes and recreation opportunities ▪ Ensure that policies are enacted to preserve open space areas and that there is sufficient property devoted to recreational purposes ▪ Develop and implement policies and programs to ensure that all residents and visitors are capable of enjoying Waterford by both motorized and nonmotorized modes of transportation
Goal 2: Community Recreation Center Develop, Construct, and Maintain a Full-Scale Recreation Center to Serve All Age Groups in One Central Location	▪ Provide indoor swimming facilities to meet the community's recreation/fitness, therapeutic, and scholastic swim needs ▪ Provide auditorium/theater stage facilities for cultural events and conferences ▪ Provide gymnasium/fitness facilities to complement existing private fitness facilities to better achieve the fitness needs of all age groups ▪ Equip meeting/class room facilities for community and enrichment programming ▪ Provide banquet/conference amenities to supplement existing private facilities and enhance the community's meeting/conference capacity ▪ Develop and maintain outdoor walking track and/or nature interpretive trail to complement the indoor facilities ▪ Provide a playground area for younger children ▪ Propose and promote a phased plan of development and funding to create a dynamic recreation center that will be supported by the citizens and serve the community for the foreseeable future
Goal 3: Develop and Promote a Waterford Riverwalk Pedestrian Pathway	▪ Complete the Waterford Riverwalk to the greatest extent possible from Dixie Highway south to Cooley Lake Road ▪ Seek alternative funding sources from grants and foundations whenever possible to complete the project ▪ Explore opportunities to link the Waterford Riverwalk with other trails in adjacent communities such as the West Bloomfield Rail-Trail, and the Independence Township walkway system

Goals	Objectives
Goal 4: Increase Opportunities for Passive Recreation and Access to Natural Areas	▪ Create better access to, and promote utilization of, Elizabeth Lake Woods ▪ Provide and maintain nature and interpretive footpaths and observation decks or boardwalks in passive recreation areas ▪ Develop and maintain signage to identify natural features and areas such as the river and stream crossings and watershed boundaries ▪ Improve pedestrian access to the Nature Center by way of the Waterford Riverwalk and Fish Hatchery Park
Goal 5: Promote Recreational Utilization of the Clinton River	▪ Educate the community about the presence of, importance of, and threats to, the Clinton River ▪ Sponsor and promote projects and programs to clean up, restore, preserve, and protect the Township's river resources ▪ Sponsor and promote Clinton River educational and recreational projects and programs
Goal 6: Promote Increased Access/Use of Existing Parks	▪ Provide and maintain effective nonmotorized access to Township parks ▪ Develop and implement a playground equipment maintenance and improvement schedule to ensure child safety and modernized facilities ▪ Explore opportunity for creating dog parks, or using a portion of an existing park for purpose of developing and maintaining pet run areas ▪ Conduct occasional studies and analyses of the utilization of existing parks to assess use patterns and evaluate other recreational uses that could be implemented
Goal 7: Provide and Maintain Playground Areas in Neighborhoods	▪ Investigate opportunities for establishing and maintaining small playground or picnic areas within or adjacent to neighborhoods ▪ Provide assistance to neighborhood associations in order to organize, manage, and control parks to serve their neighborhood ▪ Research the feasibility and reasonableness of revising Township Ordinances to provide for establishment, regulation, and maintenance of park areas in new developments

Table 7-6: Open Space Preservation

Goals	Objectives
Goal 1: Protect Existing Natural Areas	▪ Maintain the abundance and quality of existing natural resources and acknowledge the resulting limitations to development ▪ Analyze natural areas to catalog high quality natural resource areas, including uplands, that should be designated as priority areas for protection ▪ Conduct surveying and mapping schedule of wetland areas in the Township to maintain current wetland type/function data and comprehensive wetland map ▪ Educate the community and Township staff on the importance and function of wetlands and their contributing uplands ▪ Display and disseminate wetland information and maps throughout the Township ▪ Investigate ways in which the Township should actively pursue and fund land acquisition for recreational and/or open space preservation
Goal 2: Restrict Development Intensity Based on Land Carrying Capacity	▪ Allow for a range of housing configurations to minimize impact on natural features and promote open space preservation ▪ Promote and maintain primarily low-density residential development in areas restricted by the existence of natural features, limiting soil conditions, lack of sufficient sewer, water, and road infrastructure
Goal 3: Promote Open Space Developments	▪ Research and propose revisions to the Township Ordinances to provide reasonable and flexible requirements and tools for the development of housing that preserves substantial areas of open space ▪ Establish and enforce the preservation of uplands as a requirement in open space and cluster developments ▪ Require sufficient areas for outdoor play and community gatherings in new residential developments ▪ Encourage private preservation of open space through conservation easements, dedications, and stewardship programs ▪ Encourage and preserve links of natural areas to other parklands, schools, and recreation areas (natural resource corridors)
Goal 4: Enhance and Restore Natural Areas	▪ Encourage and develop funding sources to restore natural areas that have suffered from neglect, pollution, and other sources of degradation ▪ Promote the use of native plant species to preserve vegetation diversity, maintain links to Waterford's natural history, and minimize the negative impacts of exotic vegetation

TRANSPORTATION AND COMMERCIAL CORRIDORS SUBCOMMITTEE

Subcommittee Members

- Steve Reno, Chairman
- Charlotte Burckhardt
- Christine Dion
- Debbie Harris
- Warren Runyan
- Bob Sharrard
- Bob Smith

Staff Member
- Bob Vallina, Community Planning and Development Director

View of westbound M-59 commercial corridor from the Crescent Lake Road intersection

Introduction

It was the responsibility of the Transportation and Commercial Corridors Subcommittee to examine the transportation network and commercial corridors in the Township, as well as review potential tools and opportunities for economic and destination development related to the commercial corridors.

The commercial corridors are the main transportation arteries of Waterford because the majority of residents and visitors use these corridors to reach their destinations and travel through the Township. Waterford's primary commercial corridors along M-59, Dixie Highway, and Telegraph Road contain the majority of the community's commercial and office destinations. The Township's transportation network also includes the secondary roads that are the primary means to reach Waterford's residential neighborhoods, a nonmotorized pathway system, an active railroad, and the Oakland County International Airport.

Since commercial corridors are a focal point for both a community's residents and visitors, the aesthetics and functionality of these corridors can be instrumental in establishing the image and atmosphere of a community. Traveling along M-59, Dixie Highway or Telegraph Road, visitors can develop their first impression of Waterford Township as a community. Attractive gateways, visually appealing development, access by multiple modes of transportation, and smooth flowing traffic along these corridors increase the possibility for a favorable first impression, and increase the potential for positive economic development and destination activity.

Subcommittee Review Process

The Transportation and Commercial Corridors Subcommittee met eight times between May and August of 2001. The Subcommittee included residents, business owners, and Township staff. The Subcommittee reviewed the Township's existing road system, nonmotorized pathway system, the section of the Canadian National Railroad that runs through the Township, and the Oakland County International Airport. The Subcommittee listened to speakers from the Township, Road Commission for Oakland County, and the non-profit Transportation Improvement Association. The Subcommittee then used the information they gathered to develop the proposed goals and objectives they reported to the Master Plan Committee of the Whole.

Mission Statement

The Subcommittee established a mission to review the transportation infrastructure of the Township and discuss means of improving and enhancing the transportation network, improving the aesthetics and functional character of commercial corridors, and creating and maintaining a sound multi-modal transportation system. Members also reviewed concepts and tools for walkability and traffic calming.

Meetings Summary

Transportation and commercial corridor issues were discussed at great length by Subcommittee members during their meetings. The Subcommittee discussed how the M-59, Dixie Highway, and Telegraph Road commercial corridors are the main transportation arteries of Waterford and that these roads guide most visitors into and through the Township. The Subcommittee also reviewed information on how attractive development and smoothly flowing traffic along Township roadways can increase the potential for a positive community image. Subcommittee members discussed, at length, their priorities for proposing the re-alignment, redesign, and extension of several sections of public roadways in order to calm traffic and improve transportation flow and safety.

Riverwalk pedestrian path south of M-59

The Subcommittee discussed the commercial development that is the predominant land use located along the major commercial corridors as well as the secondary roads that feed into these main arterial roads. There were extensive discussions about the following issues, which are listed in random order.

1. Aligning roads and road conditions:
    - Widening of Hatchery Road
    - Paving the unimproved sections of Lochaven and Hospital Roads
    - Planned realignment of Williams Lake Road between M-59 and Gale Road
    - Widening Telegraph Road under the railroad track bridge south of Dixie Highway
    - Investigating the possibility of constructing a boulevard effect and installing all utility lines underground on the major commercial corridors
    - Investigating the future realignment of Airport Road
    - Investigating the future realignment of Watkins Lake Road
    - Investigating the future extension of Williams Lake Road between Gale Road and Maceday Lake Road, and Crescent Lake Road between Hatchery Road and Dixie Highway
    - Dividing Warren Drive into two separate and distinct roads
2. Improving the appearance of the railroad right-of-way along Dixie Highway between Watkins Lake Road and Hatchery Road
3. Developing and implementing an access management program for curb cuts along major roads
4. Developing and implementing traffic calming measures in the Township
5. Improving pedestrian access and safety along major roads and throughout the Township, particularly by completing the Township-wide bikepath system

6. Developing and implementing policies and programs to improve the aesthetic appearance of properties along the commercial corridors
7. Promoting a preventative maintenance program for subdivision roads
8. Utilizing the neighborhood node concept to create small destination centers along the commercial corridors

In order to address some of the concerns cited, the Subcommittee reviewed and discussed the principles contained in the Urban Land Institute's 2001 publication *Ten Principles for Reinventing America's Suburban Strip*, written by Michael D. Beyard and Michael Pawlukiewicz.

(Please refer to the complete records of the minutes in Appendix G to review the details of the Subcommittee discussions.)

Goals and Objectives

The Subcommittee members concluded their review of transportation and commercial corridors by developing a list of proposed goals, objectives, and action items addressing their subject area. This list was presented to the Master Plan Committee of the Whole and the Planning Commission, and was recommended for inclusion in the Master Plan. The final transportation and commercial corridor goals and objectives are listed in Table 7 as follows.

Table 7-7: Transportation and Commercial Corridors

Goal	Objectives
Goal 1: Improve North-South Mobility in Waterford Township	▪ Explore, research, and fund realignment and extensions of existing roads, where feasible, to eliminate safety hazards and improve traffic flow ▪ Promote and develop funding sources for pavement of unimproved sections of the primary Township road network ▪ Identify, research, and analyze elimination of impediments to traffic flow and safety
Goal 2: Improve the Physical Appearance and Functional Character of the Commercial Corridors	▪ Develop and implement ordinances, policies, and planning tools to assist with the aesthetic and functional improvement of the Township's commercial corridors ▪ Develop, implement, and promote access management regulations and policies to improve traffic safety and reduce impediments to redevelopment ▪ Pursue and maintain cooperative relationships between the Township and road agencies to investigate and plan aesthetic and functional improvement of the Township's commercial corridors ▪ Pursue and maintain intergovernmental relationships to promote and fund economic development along the Township's commercial corridors ▪ Sponsor and develop partnerships with commercial corridor property owners to improve and expand landscaping at the Township gateways and along the commercial corridors
Goal 3: Enhance the Walkability of Waterford Township	▪ Identify and fund construction of nonmotorized path segments to connect existing nonmotorized path segments ▪ Update and improve the Township's nonmotorized pathway master plan ▪ Investigate, recommend, and adopt a stable funding source for full implementation of the Township's nonmotorized pathway master plan
Goal 4: Diversify Transportation Options	▪ Research, develop, fund, and implement a plan to provide dependable and safe transportation for house-bound destination users ▪ Investigate, analyze, and plan for the mass transit needs of Waterford citizens
Goal 5: Improve Traffic Safety	▪ Assist road agencies with identifying locations of existing traffic hazards and conflicts between different modes of transportation ▪ Assist road agencies with the development and implementation of plans and programs to minimize and eliminate existing traffic hazards and conflicts between different modes of transportation

HISTORIC PRESERVATION AND NEIGHBORHOOD NODES SUBCOMMITTEE

Subcommittee Members

- Dean Fisher, Chairman
- Evangeline Chase
- Michael Franz
- Richard Lohff
- Allan Motzny
- Dr. John Richardson
- Carla Spradlin

Staff Member
- Larry Lockwood, Planning Division Head

One of the Waterford Village Historic District's nineteenth century residential structures

Introduction

Historic preservation is an essential element in helping a community maintain and protect the foundation of its identity. Historic preservation can also provide a sense of place and establish a destination for visitors and residents. The historic district concept provides a community with the legal ability to preserve and protect areas of the heritage and history of a community.

The Waterford Village Historic District (the District), established in 1977, is located in the northern part of the Township. The District was established by Waterford to preserve one of its first settlement areas *(please refer to Chapter 3 of this document)*. The Waterford Village Historic District is Waterford's sole example of one of its original village areas featuring nineteenth century Michigan vernacular architecture. Since its establishment in 1977, the District area has undergone few radical changes and efforts continue to preserve the District's historic structures. The District, composed of approximately 30 modest nineteenth century structures, is the historic heart of the Township and retains much of its character, despite the encroachment of modern development. Most of these buildings are one-and one-half story flank-gable frame homes covered in clapboard siding. The most ornate structure in the District is the former First Baptist Church, a brick, front-gable, bracketed Italianate building, fronted by a tower standing on a high coursed ashlar foundation.

The Waterford Village Historic District serves as one of Waterford's neighborhood nodes. The concept of neighborhood nodes is particularly important to a large geographic community like Waterford. Waterford is a community of approximately 35 square miles in size, with 34 lakes within its boundaries, and with no established downtown to draw residents and visitors out of their automobiles to walk and experience a social destination. This creates challenges to achieving a goal of establishing and promoting land uses to act as places that encourage walkability and social interaction. In order for Waterford to realistically achieve this goal, the focus must be on planning for the redevelopment of its commercial corridors *(please refer to Pages 7-37 through 7-40)* and the development of several locations within the community that will act as neighborhood nodes. In Waterford, neighborhood nodes will be areas where development and redevelopment efforts focus on creating a walkable small-town type destination for residents of the surrounding neighborhoods to gather and visit, shop, work, and recreate.

Subcommittee Review Process

The Historic Preservation and Neighborhood Nodes Subcommittee met seven times between May and September of 2001. The Subcommittee included residents, members of the Waterford Historical Society, and Township staff.

The landmark structure in the Waterford Village Historic District, originally built as the First Baptist Church

Two topics were the primary focus of the Subcommittee: the continued preservation and improvement of the Waterford Village Historic District and the development and promotion of neighborhood nodes throughout the Township. Subcommittee members reviewed the issues involving the District and the role they believe it can play as a destination and educational resource for current and future generations of Waterford citizens and visitors. Subcommittee members also reviewed the concept of neighborhood nodes. The planning consultant assisting with the Master Plan process provided a global overview of the neighborhood nodes concept for the Subcommittee to sift through and determine how to best fit the concept with Waterford's goal of creating a walkable community and a dynamic identity. The following is a synopsis of the two topics reviewed by the Subcommittee.

Historic Preservation - The Subcommittee discussed how to improve, promote, and expand the Waterford Village Historic District and explored ways in which the District could be developed as a dynamic neighborhood node. Several speakers appeared before the Subcommittee to provide background information and expertise. The Subcommittee reviewed the issues regarding continued historic preservation of the District and then developed a set of proposed goals and objectives.

Neighborhood Nodes – The concept of neighborhood nodes and the importance of encouraging the development of areas as local destinations was discussed by Subcommittee members. The consultant appeared before the Subcommittee to provide an expansive and wide-ranging review of what could be considered as local gathering places for social interaction and daily destinations. The consultant also developed and conducted a group exercise to identify and map Township neighborhood areas. The Subcommittee members then took the broad generalities presented by the consultant and applied them to Waterford in order to show as many potential nodal areas as possible. The Subcommittee then developed a set of proposed goals and objectives to achieve the development of neighborhood nodes in Waterford.

Mission Statement

The Historic Preservation and Neighborhood Nodes Subcommittee worked to review and analyze related ordinances of the Charter Township of Waterford relative to the Waterford Village Historic District. In addition, the Subcommittee explored existing and potential planning and zoning tools to promote the protection, preservation, rehabilitation,

restoration and reconstruction of sites, buildings and or structures within the District. The Subcommittee also worked to identify a wide-ranging list of areas within the Township for consideration as community neighborhood nodes to enhance and strengthen Waterford as an accessible and pedestrian friendly community.

Meetings Summary

The Subcommittee met seven times between May and September 2001, and had many discussions regarding the issues of Historic Preservation and Neighborhood Nodes. The following are the highlights of the topics discussed.

Waterford Village Historic District

Cut-Through Traffic. One major concern of the Subcommittee was the amount of vehicular traffic, particularly large trucks, using Andersonville Road and Airport Road to travel through the Waterford Village Historic District to reach Dixie Highway. These roads lead into and through the District. The high volume and speed of automobile traffic, coupled with the heavy truck traffic, creates a serious pedestrian safety issue for residents and visitors to the District. The Subcommittee reviewed suggestions to alleviate this dilemma by lowering the speed limit and redirecting truck traffic onto other roads to reach Dixie Highway.

Waterford Village Historic District Boundaries. When evaluating and comparing maps of the District boundaries, the maps showed discrepancies in the location of the District's boundaries. There was a survey conducted in the mid-1970s to determine which property owners were interested in becoming part of the Historic District. Several property owners did not respond to the survey at the time, which is the probable cause of the discrepancies. The Subcommittee discussed conducting a new survey of the owners of property currently not included in the District boundaries to determine whether they are interested in being included in the District.

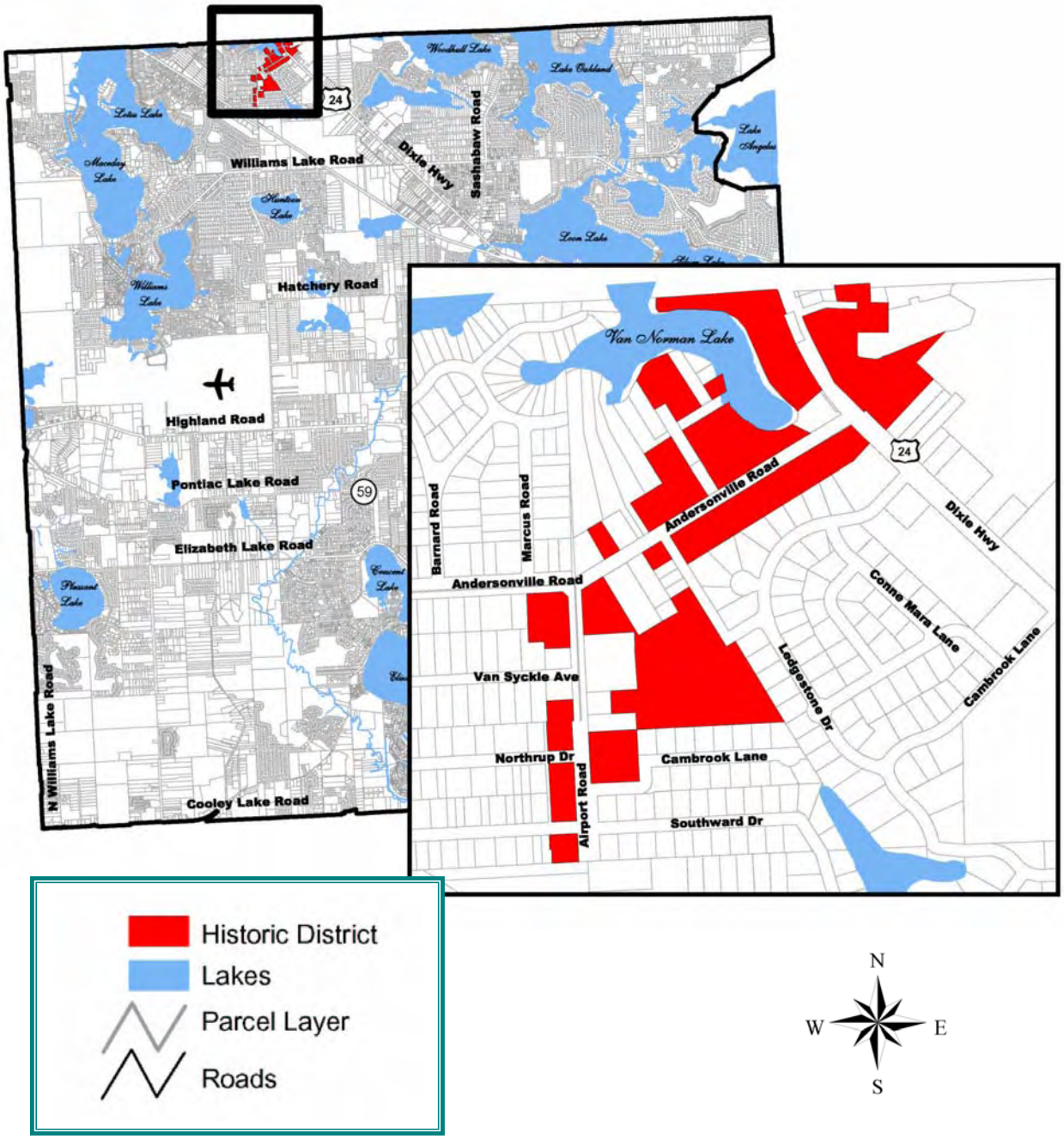
Design Guidelines and Ordinances**.** The Subcommittee reviewed the Township ordinances governing the Waterford Village Historic District and the Historic District Commission. The Subcommittee discussed amending the regulations to require additional architectural standards. The Subcommittee also reviewed design guidelines and sample ordinances from other communities. Based on that review, the Subcommittee discussed potential steps to strengthen the current ordinances in order to maintain the historic appearance of the area.

Pedestrian Walkways**.** The disrepair and intermittent breaks in sidewalks within the District were identified as a major concern for pedestrian circulation and safety. The Subcommittee discussed potential improvements that could be made to these sidewalks, such as installation of brick pavers or stamped concrete, to make them aesthetically attractive. The Subcommittee also discussed the consideration of physically disabled individuals, if the sidewalks are to be redesigned. The Subcommittee concluded that the improvement of the sidewalks should encourage residents and visitors to walk through the District. The Subcommittee also discussed other amenities, such as decorative street lighting and signage, that would help make the District a dynamic destination.

Community Identity. The Subcommittee discussed the importance of promoting the identity of the Waterford Village Historic District as one of the first settlement sites in Waterford. The Subcommittee members discussed ways in which to promote the local historical significance of the area and to educate children about its history. The Subcommittee reviewed the idea of identifying local historic sites and landmarks, and

linking the identification process to educational efforts and the community identity. The Subcommittee discussed the importance of using the Township's Geographic Information Systems (GIS) and internet resources in a local historic site/landmark identification process.

Map 10 Waterford Village Historic District



Source: Waterford Township GIS and Community Planning & Development
This map is intended to provide general information only. For more detailed map information on the topic of this map, please visit the Charter Township of Waterford web site at www.twp.waterford.mi.us or contact the Community Planning & Development Department at (248) 674-6256.

Historic District Expansion. Expanding the Township's Historic District areas was also discussed by Subcommittee members. The Subcommittee reviewed the issue of "public purpose" versus "taking" of private property. Based on these discussions, the Subcommittee recommended that the Township promote the expansion of Historic District areas with the development and implementation of incentive programs to attract property owners into newly established District areas. A recommendation was also made to explore acquisition of those properties that opted out of the original District designation. This will encourage more dynamic efforts to preserve and rejuvenate the District.

District Signage. Subcommittee members discussed the creation of a program to install specialized directional signage, sometimes referred to as wayfinding signage, to promote the District and provide a directional guide to visitors. The Subcommittee concluded that these wayfinding signs could be placed along roadways throughout the Township to direct visitors into the District and increase awareness of the District's existence. The Subcommittee also discussed the possibility of using the signage for other historically significant properties located outside of the Waterford Village Historic District. The Subcommittee also discussed the possibilities of raising funding for the signage project from property owners or from local sponsors that wish to protect and preserve historically significant sites.

Historical Sites Map. Discussion among Subcommittee members also centered on the need for creating graphic presentations to educate people on the existence of historical sites in Waterford. The Subcommittee reviewed ways in which the new technologies, such as GIS and the internet, could be used to create and maintain such presentations. The Subcommittee also examined Oakland County's Historical and Cultural Resource Inventory Map, developed by the Oakland County Planning and Economic Development Services. The Subcommittee concluded that a process should be initiated to create and maintain maps to assist the community residents and visitors in locating historical sites within the Township.

Neighborhood Nodes

Subcommittee members reviewed the concept of neighborhood nodes and how this concept could be applied to planning a more walkable community. The consultant spent several meetings presenting a very broad spectrum of community components that could be considered as social gathering places for neighborhoods. The consultant also presented a diverse amalgam of concepts which they distinguished as neighborhood nodes, such as homes and yards, community streets, neighborhood niches, anchoring institutions, and public spaces. After some initial confusion over the presentation of every community component as a neighborhood node, the Subcommittee decided that for Waterford's future planning intentions, neighborhood nodes would be areas where development and redevelopment efforts shall focus on creating a walkable small-town type destination for residents of the surrounding neighborhoods to gather and visit, shop, work, and recreate.

The consultant also led the Subcommittee through an exercise to identify neighborhood areas, based on the information provided by the consultant. The Subcommittee identified the following sample of neighborhood areas where neighborhood nodes might be established in the Township:

- Lotus Lake and Marble Beach area
- Drayton Plains area
- Lake Oakland area
- Nature Center area
- Elizabeth, Cass, and Crescent Lakes areas
- Airport and Hatchery area
- Williams Lake area

As part of the exercise, each Subcommittee member traveled to one of the areas and photographed one or more landmarks. The Subcommittee then discussed these areas and how they could be developed as neighborhood nodes. The consultant then prepared a map to show the areas chosen by the Subcommittee members *(please refer to Appendix H).*

(Please refer to the complete records of the minutes in Appendix H to review the details of the Subcommittee discussions.)

Goals and Objectives

The Subcommittee members concluded their review of the Historic District and neighborhood nodes by developing a list of proposed goals, objectives, and action items addressing their subject area. This list was presented to the Master Plan Committee of the Whole and the Planning Commission, and was recommended for inclusion in the Master Plan. The final Historic District and Neighborhood Node goals and objectives are listed in Tables 8 and 9 *(please refer to pages 7-48 and 7-49).*

Table 7-8: Historic Preservation

Goal	Objectives
Goal 1: Enhance the Safety of the Waterford Village Historic District	▪ Research, develop, and implement traffic calming measures in and adjacent to the District ▪ Develop, promote, and enforce measures to minimize the volume and speed of pass-through vehicular traffic ▪ Ensure that improvements to all nonmotorized pathways in the District are included in a Township-wide nonmotorized pathway improvement program ▪ Research, evaluate, and implement improvements and revisions to the Zoning Ordinance to ensure that future land uses and developments provide for a pedestrian-friendly environment ▪ Improve and maintain identification markings for pedestrian crossings in the District
Goal 2: Expand and Improve the Aesthetics of the Waterford Village Historic District	▪ Research, plan, and fund the installation of decorative lighting along the streets in the District ▪ Explore, promote, and fund the installation of signage to educate and enhance the visibility of the District as a destination ▪ Research, plan, and fund the installation of handicap-accessible sidewalks using materials and techniques that will reflect and promote the historic environment of the District ▪ Inventory and evaluate existing vacant land in the District and explore uses that will enhance the District as a community destination
Goal 3: Expand and Enhance the Historic Preservation of the Waterford Village Historic District	▪ Evaluate and recommend adaptive reuse of historical buildings in the District ▪ Research, evaluate, and improve the regulatory powers and effectiveness of the Township's ordinances governing land use and building in the District ▪ Research, evaluate, and improve the effectiveness of the current administrative structure of the Historical Commission ▪ Examine and explore the expansion of the original District boundaries to include additional properties ▪ Explore, develop, and maintain stable funding sources and financing tools for restoration, improvement, and small business development in the District ▪ Develop and implement ongoing communication forums with District property owners to inform them of District regulations and expectations

Table 7-9: Neighborhood Nodes

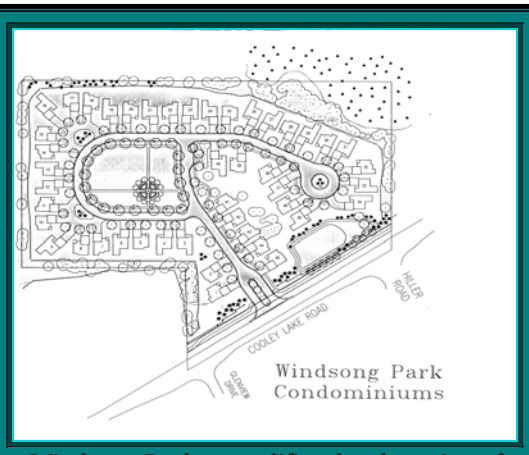
Goal	Objectives
Goal 1: Plan and Encourage Development of Neighborhood Nodes	▪ Research, evaluate, and implement enhancements and revisions to the Zoning Ordinance to allow for future land uses, mixture of uses, and developments that will create and maintain viable and dynamic neighborhood nodes ▪ Inventory and develop long-range conceptual plans for areas targeted for development as Township neighborhood nodes ▪ Promote the funding, installation, and maintenance of nonmotorized pathways between neighborhood nodes to increase accessibility and encourage nonmotorized travel ▪ Research and promote adaptive reuse and economic development of properties within targeted neighborhood node areas to encourage and guide development and redevelopment in accordance with the long-range area conceptual plan
Goal 2: Enhance and Promote Waterford's Sense of Community and Identity	▪ Develop and maintain partnerships between the Township government, School District, business community, and community agencies to promote the Waterford community and to explore and advocate improvements to enhance and expand the quality of life for citizens and visitors ▪ Promote Waterford's environmental assets, its location in Oakland County, its cultural activities, school system, parks, and recreation opportunities

HOUSING AND DEMOGRAPHICS SUBCOMMITTEE

Subcommittee Members

- Dennis Griffin, Chairman
- Ingrid Bowman
- Andrea Deering
- Kendra Klein
- Scott Krakauer
- Joanna Ljovshin

Staff Member
- Larry Lockwood, Planning Division Head



Windsong Park exemplifies the clustering of dwelling units to achieve open space preservation. A central commons area was also incorporated into this housing development as depicted in the site plan shown above

Introduction

Demographics is defined as the study of the characteristics of human population, size, growth and vital statistics. This type of information informs residents of current population, housing, economic, and educational trends. The gathering and analysis of statistics on residents and housing are important because this information provides insight into the characteristics of the current community structure and stability of Waterford. Community planners analyze this information and use it as the foundation for assessing future land use needs and the effect of projected population characteristics on the demand for public services and facilities. In other words, this current information provides the foundation for the analysis and planning that guide a community's future growth and improvements. Businesses may use the information to determine the market influences on future business decisions. These decisions may also include determining the location of new stores or business facilities, or the type of merchandise or products to sell within a particular community. Businesses could analyze the existing social environment for new employees who expect to live in the same community where their place of employment is located.

Subcommittee Review Process

The Housing and Demographic Subcommittee held seven meetings between May and September of 2001. The Subcommittee members reviewed the available U.S. Census data for Waterford and discussed their views and thoughts on housing stock needs, the Township's identity, and amenities that attract people to live in a community. The consultant developed a graphic analysis of Waterford's demographics for use by the Subcommittee *(please refer to Appendix A)*.

Mission Statement

The mission of the Housing and Demographic Subcommittee was to study and evaluate the available 2000 Census data for Waterford Township, review existing zoning *(please refer to Map 11 on Page 7-57)* and housing patterns within the community, and develop goals and objectives based on those findings.

Meetings Summary

In order to accomplish the mission of the Subcommittee, it was necessary to review data from a variety of sources. These sources included the United States Census Bureau, the Southeast Michigan Council of Governments (SEMCOG) and the Michigan State Center for Educational Performance and Information. The Subcommittee discussed the research and evaluation of census data, population and employment projections, school enrollment, educational attainment, and housing and household information. The consultant also conducted a demographic comparison between Waterford and surrounding communities. The Subcommittee reviewed housing data on housing costs, housing size and the geographic distribution of housing units *(please refer to Appendix I)*.

The following statistics were the highlights of the Subcommittee's review:

Population - Population has increased by almost 10,000 residents since 1980, increasing mostly in the latter half of the period. From 1990 to 2000, the population increased by 6,458 residents, almost double the rate between 1980 and 1990.

Population by Age Group - The majority of Waterford's residents are over 25 years of age (68.7 percent). The 2000 Census shows that 15.3 percent are school age children and 7.2 percent are under age five. SEMCOG estimates that the population age 65 years and older will more than double from 7,893 in 2000, to 15,815 by 2030, while all other age classifications will decrease.

Population Projection through 2030 - According to a projection by SEMCOG that is currently not supported by the Township, by 2030, Waterford may experience a four percent decrease in population, at the same time the number of households increases by 13 percent. Therefore, SEMCOG foresees a drastic decline in Waterford's average household size (see below), and not a reflection of the desirability of the Waterford housing market.

Average Housing Value - The value of housing in the Township has increased consistently since 1996, at an average rate of seven percent per year. In 2000, the average housing value was $144,000.

Average Household Size - From 1990 to 2000, the average household size shrank from 2.59 persons to 2.42 persons. This decrease was greater than the County average, which decreased from 2.61 to 2.51 between the years of 1990 to 2000. However, this trend is projected by SEMCOG to continue with the average Waterford household size decreasing to 2.12 by 2030.

Projections of Percent of Households with Children - By 2020, the number of households with children is projected to decrease by more than five percent. This projection is consistent with surrounding communities. SEMCOG's projection of Waterford households with children in 2020, would be the lowest in the area.

Manufactured Housing - Manufactured housing totals have not changed since 1980. There are 183 licensed units within the Township.

School Enrollment - According to SEMCOG, enrollment totals have decreased significantly since 1980. At that time, the enrollment in area schools was 15,876 students. In 2000, enrollment was down to 11,217 students; however this was a 0.8 percent increase from 1990.

Education Attainment - Waterford Township has shown an increasing trend of improving education in the community. Since 1980, the number of residents without high school diplomas has decreased and the number of college graduates has increased.

Employment Projections - By 2030, employment is projected to increase by 17.9 percent, an increase of more than 5,783 employees. However, during this period, the number of working adults (age 18 to 64) is projected to decrease by 7,633, leaving a deficit of 1,850 new employees in Waterford.

Employment Projection by Trade - For the next 30 years, the service sector is projected to continue to dominate employment in Waterford, rising from 38.4 percent of the total employment to 46 percent in 2030. However, the Retail Trade sector, the other predominant employment sector, is projected to diminish by 946 jobs, or 8.5 percent during the same period.

(Please refer to the complete records of the minutes in Appendix I to review the details of the Subcommittee discussions and Appendix A for the complete background demographics analysis.)

Goals and Objectives

The Subcommittee members concluded their review of Housing and Demographics by developing a list of proposed goals, objectives, and action items addressing their subject area. This list was presented to the Master Plan Committee of the Whole and the Planning Commission, and was recommended for inclusion in the Master Plan. The final Housing and Demographics goals and objectives are listed in Table 10.

Table 7-10: Housing & Demographics

Goal	Objectives
Goal 1: Enhance and Promote Waterford's Identity within the Region	▪ Develop and maintain partnerships between the Township government, School District, business community, and community agencies to promote Waterford's community identity and to promote Waterford as a destination for citizens and visitors to enjoy quality of life amenities ▪ Research, plan, and implement improvements to the Township's gateway entries into the community ▪ Develop cooperative partnerships, adopt flexible planning and zoning tools, and actively utilize economic development tools to ensure the continued redevelopment and economic viability of the regional destinations located in the Township
Goal 2: Ensure and Promote the Development of Waterford as an All-Purpose Community with Superior Quality of Life Amenities	▪ Research, evaluate, implement, and actively enforce revisions to the Zoning Ordinance to promote a diverse housing stock and development of upper income housing ▪ Explore and aggressively utilize economic development and planning tools to actively promote the relocation of new businesses and technology-based companies to Waterford ▪ Research, evaluate, implement, and actively enforce revisions to the Zoning Ordinance to require more open space preservation in new housing developments ▪ Research, evaluate, and implement enhancements and revisions to the Zoning Ordinance to allow for future land uses, mixture of uses, and developments that will create and maintain viable and dynamic neighborhood nodes ▪ Develop, promote, and maintain the Township Civic Center as a community gathering place ▪ Provide a wide range of cultural activities and indoor and outdoor recreational facilities and programs for all age groups

Goal	Objectives
Goal 3: Establish and Enforce a High Standard for the Physical Condition of the Township Housing Stock	▪ Research, evaluate, and implement revisions to the Township Ordinances to require regular inspections of rental housing, enforce property maintenance codes, and eliminate substandard and unsafe property conditions ▪ Ensure and enforce the elimination of blighting effects and influences throughout the Township by aggressively and effectively enforcing the Township's Codes and Ordinances ▪ Research, evaluate, and implement revisions to the Township Zoning Ordinance, incorporating flexible planning and zoning tools that establish zoning districts which encourage and promote redevelopment

ZONING ORDINANCE AND LANDSCAPE AESTHETICS SUBCOMMITTEE

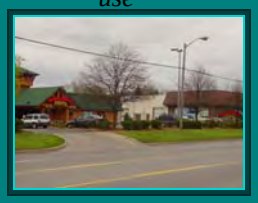
Subcommittee Members

- Will Allen, Chairman
- Carl Bruckner
- Mary Jo Freeman
- Cindy Hearl
- Yvette Heitzeg
- Bob Hoffman
- Mike Kelly
- Colleen Murphy
- Mark Rogers
- Rick Rohl
- Merritt Wolson

Staff Members

- Doug Bradley, Building and Engineering Director
- Mark Kellenberger, Planner II
- Larry Lockwood, Planning Division Head
- Amy Noel, Planner I
- Geri Slavin, Lead Code Enforcement Officer
- Bob Vallina, Community Planning and Development Director

The purpose of the Zoning Ordinance is to provide the Township with the legal tools to implement the goals of the Master Plan to promote and preserve the public health, safety, and general welfare, as well as to achieve preferred land management objectives and effective land use



Introduction

Under Michigan State law, a community's Master Plan sets the goals and objectives that the community seeks to achieve during a specified time frame. The primary tool for implementing the land use goals of the Master Plan is a community's Zoning Ordinance. Since the Zoning Ordinance has the force of law, it is critical to review, revise, and adopt a Zoning Ordinance that reflects the Master Plan. The Zoning Ordinance and Landscape Aesthetics Subcommittee began its initial review of the current Zoning Ordinance between April and July 2001, then adjourned until after the adoption of the Master Plan. The Subcommittee will begin a public review and draft process that will involve the citizens, Planning Commission, Zoning Board of Appeals, and the Township Board, culminating in a final draft to be presented to the Planning Commission for review and recommendation to the Township Board where final adoption will occur.

Subcommittee Review Process

The Zoning Ordinance and Landscape Aesthetics Subcommittee initiated their work by examining and evaluating the current Zoning Ordinance, in six meetings from April through July 2001. In addition, three meetings of a Landscape/Aesthetics Subcommittee task force met to examine and evaluate the existing landscape requirements in the Township Zoning Ordinance.

The Subcommittee adjourned until after the Planning Commission established the goals and objectives of the new Master Plan. The Planning Commission has assigned the Subcommittee the responsibility to reconvene and work on the development of a new Zoning Ordinance that reflects the new Master Plan after it has been adopted *(Please refer to Map 11 on Page 7-57 for the Existing Zoning designations).*

Mission Statement

The mission of the Zoning and Landscape Aesthetics Subcommittee will be to review the existing Zoning Ordinance, the new Master Plan when adopted, and prepare a new draft Zoning Ordinance that preserves and protects the principles of the United States and State of Michigan Constitutions, provides for the health, safety, and general welfare of all citizens and visitors, and implements the goals and objectives of the new Master Plan.

Meetings Summary

Once the Master Plan is adopted and this Subcommittee reconvenes to develop a draft Zoning Ordinance, the complete records of the minutes from each Subcommittee meeting will be added to Appendix J for review of the details of Subcommittee discussions.

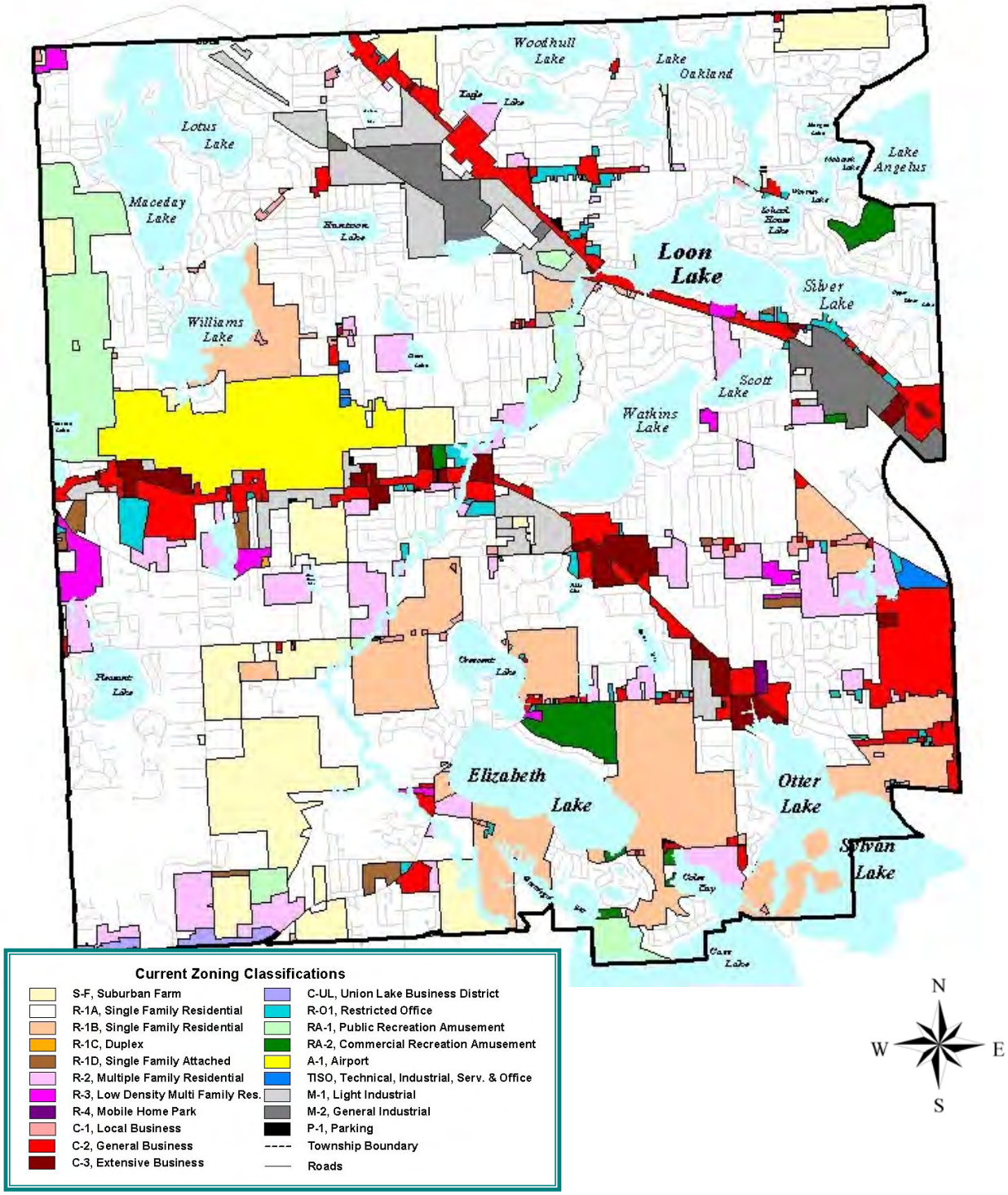
Goals and Objectives

The goal of the Zoning Ordinance and Landscape Aesthetics Subcommittee is to develop and review a draft Zoning Ordinance that reflects the implementation of the goals and objectives of the other eight Subcommittees. The objectives are to draft a document that is enforceable in court, reasonable in implementing the Master Plan goals, and which has undergone a substantial citizen review and comment process.

Map 11

Existing Zoning Districts

(Current as of December 30, 2002)



Source: Waterford Township GIS and Community Planning & Development
This map is intended to provide general information only. For more detailed map information on the topic of this map, please visit the Charter Township of Waterford web site at www.twp.waterford.mi.us or contact the Community Planning & Development Department at (248) 674-6256.

CHAPTER 8 – FUTURE LAND USE PLAN

INTRODUCTION

The background studies and Master Plan Subcommittee goals and objectives have been reviewed, analyzed, and conceptualized as a Future Land Use Plan. In conjunction with the other sections of the Master Plan, the Future Land Use Plan has been developed as the guide to achieving Waterford's future land use goals.

Waterford's Future Land Use Plan consists of the following ten documents:

- Future Land Use Map and Designations
- Transportation Plan
- Capital Improvements Plan
- Neighborhood Node and Area Concept Plans
- Recreation Plan
- Walkability Study
- Wellhead Protection Plan
- Oakland County International Airport Master Plan
- Waterford School District Master Plan
- Oakland County Complex Master Plan

The last six documents listed are incorporated into the Future Land Use Plan by reference. The Oakland County International Airport Master Plan, Oakland County Complex Master Plan, and Waterford School District Master Plan are master plans for property owned and utilized by Oakland County and by the Waterford School District. The framework for the Neighborhood Node and Area Concept Plans, Transportation Plan, and Capital Improvements Plan is established and discussed briefly in this chapter. These three documents will be fully developed as part of the implementation of the Master Plan, with the documents incorporated into the Plan upon completion.

The Future Land Use Plan is established upon the foundation of Waterford's historical and existing development. It embodies the opinions and values gathered during the master planning process, and has been developed to effectively achieve the Master Plan Goals described in Chapter 9. Factors such as existing development patterns and trends, regional influences, existing and projected population growth, service needs of Waterford citizens, existing transportation and capital facility conditions, environmental features and conditions, and redevelopment patterns, were reviewed and analyzed to assist in preparing the Township components of this Plan.

The Future Land Use Plan, with its primary graphic tool, the Future Land Use Maps, provides citizens with the policy roadmap to the preferred twenty year redevelopment of Waterford Township. Although the Future Land Use Maps are the Township's primary future land use policy, it is not law. The legal basis for enforcing land use issues within the Township is contained within the Township's Zoning Ordinance and Zoning Map. The Future Land Use Maps are representations of the future, and must be reviewed within the context of all other elements of the Master Plan, including the implementation tools and the changes in the Township since the Plan was developed.

Since the general consensus of the citizens has been that there is satisfaction with the current mix of land uses (Please refer to Chapters 6 and 7), the basis for the future land use designations is the existing land uses. As seen in Table 8-1, the change in the future land use designations, comparable to the existing land use designations, is minor.

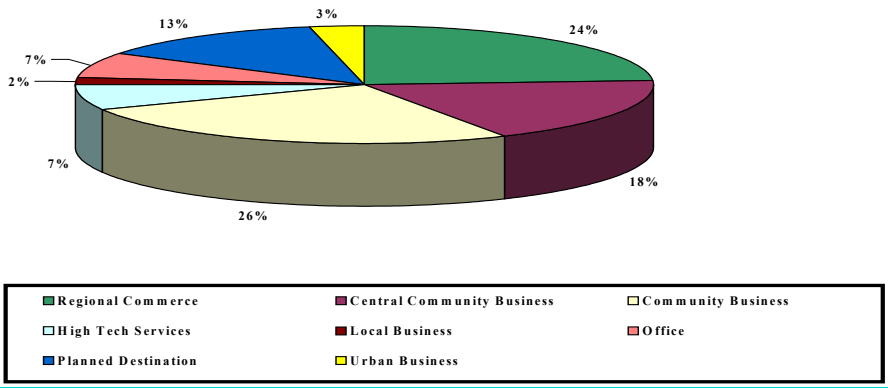
Table 8-1 Comparison of Waterford Existing and Future Land Use Classifications

Land Use Designation	Existing Land Use Distribution	Future Land Use Distribution
Public and Open Space	15.85 percent	15.55%
Single Family Residential	42.71%	42.70%
Multiple-Family Residential	3.65%	3.72%
Commercial and Office	6.95%	8.59%
Higher Intensity	5.95%	4.75%
Railroad Right-of-Way	0.29%	0.29%
Road Right-of-Way	10.03%	9.95%
Water	14.57%	14.45%
TOTAL	100.00%	100.00%

Source: Oakland County Planning and Economic Development Services and Waterford Community Planning and Development Department

One area of noticeable change has occurred in the distribution within the Commercial and Office designations. This reflects both the community's understanding that it is entering its first redevelopment phase and the Master Plan goal to enhance its commercial corridors. Under past Master Plans, the commercial and office designations were implemented through traditional commercial zoning districts. In addition, Waterford did not require minimum lot sizes for its commercial districts. This created a loose atmosphere in which commercial development grew. Through this Master Plan, the citizens set certain areas where they wanted a particular development focus. These specialized focal areas, particularly the center of the Township, the area south of the Oakland International Airport, the Telegraph and Elizabeth Lake Road retail destination area, the easternmost section of M-59, and the major transportation gateways into the Township, are intended to possess additional flexible planning tools in order to achieve the goals and objectives set for these areas. The comparative distribution can be seen in Figure 8-1.

Figure 8-1 Distribution of Commercial and Office Land Use Designations
(as a percentage of total commercial/office future land use)



Source: Waterford Community Planning and Development Department

According to the 2001 Existing Land Use Study prepared by the Oakland County Planning and Economic Development Services, less than eight percent or 1,704.28 acres, of the property in Waterford remains vacant. The majority of the vacant land is designated as single-family residential. However, Oakland County evaluated the existence of improvements on individual parcels and platted lots. Oakland County did not include as part of its analysis the frequency of vacant lots linked to an improved lot under common ownership. Therefore, while there are nearly 968 vacant single-family residential acres, this does not automatically correlate that all 968 acres are buildable. Each vacant parcel and lot would need to be analyzed for the occurrence of common ownership and whether it is buildable, in accordance with ordinance requirements. The amount of remaining buildable land may be substantially less than the total remaining vacant land. In either case, due to the rate at which vacant land has disappeared in Waterford during the past twenty years (Please refer to Appendix A-Background Studies for this analysis), it is anticipated that Waterford will reach buildout within the twenty-year period covered by this Master Plan.

Table 8-2 Comparison of Distribution of Existing Vacant Land among Land Use Designations

Land Use Designation	Existing Vacant Land (in acres)	Existing Vacant Land (as percentage of total)
Single-Family Residential	967.91	56.79%
Multiple-Family Residential	133.16	7.81%
Commercial/Office	389.52	22.86%
Industrial	67.40	3.95%
Public and Open Space	146.29	8.59%
TOTAL	1,704.28	100.00%

Source: Oakland County Planning and Economic Development Services

FUTURE LAND USE MAP AND DESIGNATIONS

The following is a description of each of the land use designations established as part of the Future Land Use Map. A brief explanation is also given as to where and which Master Plan Goals will be achieved through each of the four primary designation categories, Public and Open Space, Residential, Commercial and Office, and Higher Intensity.

Public and Open Space Designations

As part of the effort to achieve Master Plan Goal Six, ***To Ensure and Enforce Land Use Development Practices that are Sensitive to Waterford's Natural Environment*** *(Please refer to Chapter 9 – Implementation)*, the following land use categories are designated as part of Waterford's Future Land Use Plan, **Public Lands**, **Quasi-Public Lands**, and **Private Common Areas**. After adoption of previous Master Plans, the Township generally did not include, as part of the implementation efforts, the development of zoning districts to provide for land uses to implement similar designations. With the exception of the community recreation zoning district, public and open space uses were included in the Township's single-family residential zoning districts. While the existing single-family residential zoning districts are the Township's least intensive land use zones, the objective of securing and protecting open space is not effectively achieved if the zone also allows for current and future owners to consider selling the property to a new owner interested in developing the property for residential uses. The only way to prevent this is to advocate the separation of public purpose and residential uses in the Zoning Ordinance. In order to allow for the most effective implementation, the Public and Open Space land use category has been divided into the following three designations.

Public Lands

Land uses recommended for this designation are of two types. First, there is property under governmental ownership for the purpose of conducting public business. Second, there is property under governmental stewardship for the purpose of preserving and protecting public lands for the benefit of current and future citizens. To that end, the Township has identified certain lands within the community having characteristics that are found to be in the best interest of the Township to be maintained as public lands. Typical uses include fire stations, libraries, post offices, government offices, public utilities, public schools, parks, and nature preserves.

Public Land areas are identified to support the governmental functions needed to manage the future growth and redevelopment of the community. As Waterford Township continues to evolve as the geographic and economic centerpiece of Oakland County, it is imperative that the community plans wisely to ensure that enough land is set aside for the common good. Public land areas need to be available to ensure quality of life in the community, as well as the provision of community services, as redevelopment occurs. Public Land areas must be set aside to preserve natural areas for the benefit and enjoyment of its residents. Public Land areas must also be identified throughout the community, in strategic locations to provide residents the opportunity to engage in social and recreational activities within close proximity to their homes.

The Waterford Township Future Land Use Map 13 (page 8-28) indicates that over 15 percent of the total land area is reserved for the Public Lands Master Plan designation. This is comparable to other communities and is consistent with the standards of quality community planning.

Quasi-Public Lands

This land use designation refers to lands that are typically held in private ownership but offer some public benefit. The Future Land Use Map indicates the location of these land uses, which are dispersed throughout the Township. In Waterford, these land uses include golf courses, churches and their associated uses, private cemeteries, private/parochial schools, private beach associations, and private utilities.

Quasi-Public Land areas are generally conducive to providing open space and necessary services. Because these areas are important to maintaining the quality of life within the Township, efforts are necessary to preserve these areas for the same or similar uses. Efforts must also be undertaken to prevent attempts at changing the designation so that a more intensive land use can be developed. Any future attempts at making such a change must be carefully and thoroughly evaluated by the Planning Commission to ensure that the Township's inventory of open space areas and recreational opportunities are not reduced. The Waterford Township Future Land Use Map 13 (page 8-28) indicates that nearly four percent of the total land area is reserved for the Quasi-Public Lands Master Plan designation.

Private Common Areas

This designation is intended for those properties that are reserved within residential developments for private open space and neighborhood parks. Generally, these are land areas set aside during the development of a subdivision, condominium, or multiple housing project to conform to Township requirements for open space, or to provide special amenities to the residents of the completed development. The dedication of this type of property is generally accomplished through a legal document such as a deed restriction or a master deed. The property is generally owned in common by the property owners of the residential units within the original development area and is therefore not public land. The goal of the Private Common Areas designation is to support the intent of the original establishment of these areas and separate them from the surrounding residential land uses. The Waterford Township Future Land Use Map 13 (page 8-28) indicates that 1.5 percent of the total land area is reserved for the Private Common Areas Master Plan designation.

Residential Designations

As part of the effort to achieve Master Plan Goal Seven, ***To Retain, Enhance, and Promote Waterford's Unique Character, Sense of Community, and Identity*** *(Please refer to Chapter 9 – Implementation)*, the following land use categories are designated as part of Waterford's Future Land Use Plan, **Single Family** and **Multiple Family**. The Residential designations represent the continuation of Waterford's predominant land use, from an existing 46.36 percent to a projected 46.42 percent of the total future land use. Single family residential is still planned to be the single dominant land use designation, with nearly 9,700 acres devoted to this land use. Of this total future acreage, 89 percent is already developed. The remaining 11 percent is either still vacant, or currently used for another purpose. Multiple family is intended to remain relatively static. While multiple family represents approximately 3.65 percent of existing land use, future land use intends for multiple family to increase less than one tenth of a percent, to 3.72 percent.

Single-Family

The primary land use within the Single Family designation is centered around single family dwelling units, as defined under Public Act 230 of 1972, as amended. This designation provides for a limited range of single family density classifications, from a low density of one dwelling unit per acre, to a high density of 5.5 dwelling units per acre.

An additional higher density classification can be considered for those long-established areas located in the urban neighborhood on Waterford's central easternmost border and the areas surrounding many of Waterford's lakes. These existing residential density patterns were established when the areas were platted with smaller lots, largely for summer cottages around the lakes, and for the neighborhoods that were platted and developed in concert with the urban neighborhoods of the City of Pontiac. The consideration of this density pattern is intended to recognize the existing active residential patterns that were in place prior to the Township's initial zoning regulations.

In some cases, single dwelling structures housing no more than two dwelling units, could be accommodated within the single family master plan designation, on a parcel by parcel basis, depending on the character of the surrounding land uses and ability of the infrastructure to accommodate the proposed use. Innovative and creative single-family design alternatives are not intended to be restricted from consideration in the Single Family designation, provided that the intent is to achieve Master Plan Goal Six, ***To Ensure and Enforce Land Use Development Practices that are Sensitive to Waterford's Natural Environment*** *(Please refer to Chapter 9 – Implementation)* in conjunction with Master Plan Goal Seven.

All efforts in this land use designation should also strive to achieve Master Plan Goal Three, ***To Enhance the Walkability of Waterford*** *(Please refer to Chapter 9 – Implementation).* With the exception of the land uses with public and open space designations, the only secondary land uses that should be permitted within an area consisting of the Single Family land use designation are uses for which the State has superseded local zoning law, such as family day care facilities (in accordance with Act 116 of 1973).

Within each area of the Township consisting of the Single Family land use designation, the Township Planning Commission should strive to ensure that an undue concentration of non-residential public uses such as government buildings, churches, and schools is avoided unless a written analysis shows that such concentration achieves one or more of the Master Plan Goals.

The Waterford Township Future Land Use Map 13 (page 8-28) indicates that nearly 43 percent of the total land area is reserved for the Single Family master plan designation. This is comparable to other communities and is consistent with the standards of quality community planning.

Multiple-Family

The Multiple Family designation is intended to address the varied housing needs of Township residents by providing locations for development of multiple family housing at a level of density higher than that permitted in the Single Family designation, but limited to a density that does not create a negative impact on the natural and social environment of Waterford. The Multiple Family designation is intended to afford a transition of use in existing housing areas by permitting new developments or the redevelopment of land between adjacent residential and commercial or office-zoned properties. The designation will enable various types and sizes of residential accommodations for ownership or rental, to meet the needs of the different age and family groups in the Township. It should be noted that this designation intends to provide creative multiple housing opportunities for senior citizens in areas of the Township where there is pedestrian access to retail and office uses, with a potential higher density allowance where a reduction in traffic impact can be shown. The Multiple Family designation also intends to provide for the classification and bulk requirements for housing within a manufactured housing community, created according to the regulations in the Mobile Home Commission Act.

Multiple family housing developments must preserve significant natural features of the site. Accordingly, preservation of open space, flood prone zones, wooded areas and preservation of other natural features is a necessary component of every development considered in this land use designation. The intent is to achieve Master Plan Goal Six, ***To Ensure and Enforce Land Use Development Practices that are Sensitive to Waterford's Natural Environment*** *(Please refer to Chapter 9 – Implementation)* in conjunction with Master Plan Goal Seven.

Multiple family housing developments should provide direct access to adequate paved roads, sufficient utility infrastructure to support the density, usable outdoor recreation space, and a well designed internal street network, in accordance with accepted engineering principles and the requirements of the Road Commission for Oakland County. These developments should also include nonmotorized pathways in order to strive to achieve Master Plan Goal Three, ***To Enhance the Walkability of Waterford*** *(Please refer to Chapter 9 – Implementation).*

Multiple family housing should be designed to be compatible with the historic development of housing in Waterford, as well as surrounding or nearby single family housing. Building heights should be reflective of the character of the surrounding community, without endangering air traffic operations.

The Waterford Township Future Land Use Map 13 (page 8-28) indicates that approximately 3.72 percent of the total land area is reserved for the Multiple Family Master Plan designation. This is comparable to other communities and is consistent with the standards of quality community planning.

Commercial and Office Designations

The following land use categories are designated as part of Waterford's Future Land Use Plan, **Local Business**, **Community Business**, **Central Community Business**, **High Tech Services**, **Office**, **Regional Commerce**, **Urban Business**, and **Planned Destination** in an effort to achieve the following goals:

- Master Plan Goal Three, ***To Enhance the Walkability of Waterford***
- Master Plan Goal Four, ***To Create an Economic Climate Conducive to the Attraction, Retention, and Expansion of Business***
- Master Plan Goal Six, ***To Ensure and Enforce Land Use Development Practices that are Sensitive to Waterford's Natural Environment,*** and
- Master Plan Goal Seven, ***To Retain, Enhance, and Promote Waterford's Unique Character, Sense of Community, and Identity***

(Please refer to Chapter 9 – Implementation for a complete description of these goals)

During the master planning process, there was a significant amount of discussion about the condition of Waterford's commercial corridors. One of the recurring discussion points was the jumbled look of the commercial corridors. Another recurring point was the impression that there were too many strip developments, with little to no acknowledgement of the unique character of certain areas of the Township. In past Master Plans, the land use categories for commercial and office uses were basic and did not address either unique geographic conditions within Waterford or the changes occurring within the economy. The eight categories developed for this Master Plan are intended to provide for dynamic redevelopment of commercial properties on the nearly 8.6 percent, or 1,952 acres, of Waterford's land area intended for commercial and office uses. The different land use categories are defined in such a way as to provide an effective and rational means of addressing the range of market areas within the Township, from the corner market which serves citizens in the surrounding neighborhoods, to the Telegraph and Elizabeth Lake Road retail destination area that serves people throughout the region.

Local Business

The original intent for local business land use designations included serving the daily commercial needs of residents within walking distance of the use itself. This land use has been forced to accommodate larger numbers of users based on the increase in population and the change in the character of the commercial market over the last 50 years. Issues such as the inability of pedestrians to gain access to these uses because of the presence of barriers such as traffic and lack of nonmotorized infrastructure, the increased emphasis placed on the automobile, and the market for small specialty stores being replaced by the one-stop shopping centers and corporations, have created the need for these small commercial centers to accommodate larger uses, in comparison to previously developed sites, and increased level of service and amenities.

An example of the deficiency of this designation is probably best demonstrated by the prohibition of small sit-down restaurants within this district but allow for destination-type uses such as banks, beauty parlors/barber shops, and tailor shops.

It is important to consider the scale of a development proposed within the local business category. The developments that should be encouraged within the local business designation should incorporate smaller parcels than larger more intense developments, while primarily providing a level of daily service to the immediate residential area, with occasional service to other residential areas within the Township. The Waterford Township Future Land Use Map

13 (page 8-28) indicates that approximately 40 acres, or less than one percent, of the total land area is reserved for the Local Business Master Plan designation.

Community Business

The intent of the Community Business designation is to provide suitable locations for the general retail, service, and comparison shopping needs of the general population base. The commercial land uses covered by this designation are generally located along major roads, due to the higher volumes of traffic generated by these uses. Generally, the location of these uses is characterized by either a shopping center, or as an integrated or planned cluster of establishments served by one or more common parking areas, and which generate greater volumes of vehicular and pedestrian traffic. Because of the variety of business uses covered by this designation, special attention should be focused on site layout, building design, vehicular circulation, and coordination of site features between adjoining sites. In accordance with the intent of this designation, community commercial uses and sites should be:

- Designed as part of a planned shopping center or in coordination with development on adjoining commercial sites
- Located away, or substantially buffered, from residential areas
- Served by a major road, as identified in the Master Plan
- Designed to enhance and maintain a more pedestrian friendly environment and to foster a physical development pattern that is well planned and aesthetically appealing from both abutting thoroughfares and from within the District

Commercial uses that may create a potential negative impact upon the natural and surrounding environment should be discouraged, or restricted, through the use of extensive screening and landscaping to minimize any potential environmental impact. Examples of such uses are automotive related services, outdoor storage and merchant retail, motor vehicle sales, and warehouses. The Waterford Township Future Land Use Map 13 (page 8-28) indicates that more than three percent, or 519 acres, of the total land area is reserved for the Community Business Master Plan designation.

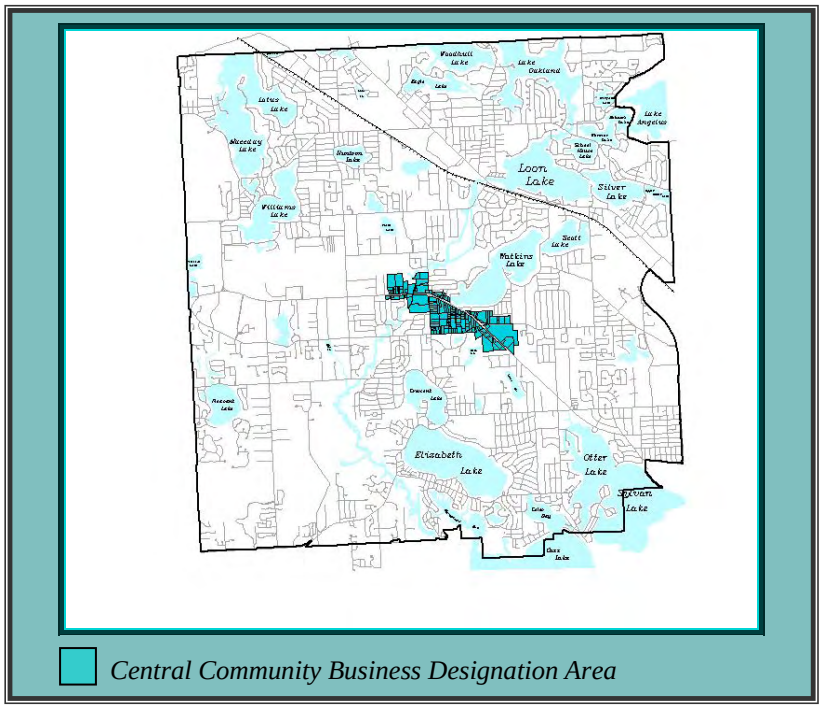
Office

The Office designation is intended for land uses that provide services, as opposed to those uses that provide for retail sale of goods and merchandise. It is intended to permit those office and restricted business uses which provide office buildings with sufficient parking areas, in landscaped settings, which do not generate large volumes of traffic, generally operate only during normal business hours, and are designed to be a compatible transitional use between residential uses and commercial uses, as well as buffering residential from major roads. Typical uses such as offices, banks and professional personal services are characteristic of this designation, and provide a transition between major thoroughfares and residential areas. The Waterford Township Future Land Use Map 13 (page 8-28) indicates that nearly one percent, or 143 acres, of the total land area is reserved for the Office Master Plan designation.

Central Community Business

This designation is exclusively intended for property in the geographic center of the Township, along the M-59 commercial corridor. It allows for a mixture of land uses including office, commercial, and residential. Since Waterford does not have a downtown area, the goal is to develop a central focal point for the community, with an emphasis on streetscape aesthetics and walkability. The highlighted area shown in Figure 8-2 should be redeveloped with a mixture of commercial, office, and residential land uses in a setting that includes the following characteristics: allowance for reduced front yard setbacks when building aesthetic provisions are met; small clusters of free-standing retail shops, restaurants, and offices; formal landscape plantings along M-59, creation of a linear landscape pattern; provision of infrastructure improvements to improve nonmotorized pathways and traffic calming; provision of town houses and above-store residential units at moderate density; and coordinated streetscape amenities throughout the designation area. Automotive related services, industrial uses, outdoor merchant retail, and other uses which tend to interfere with the continuity of retail frontage and hinder pedestrian circulation are discouraged.

Figure 8-2 Location of Central Community Business Designation Area

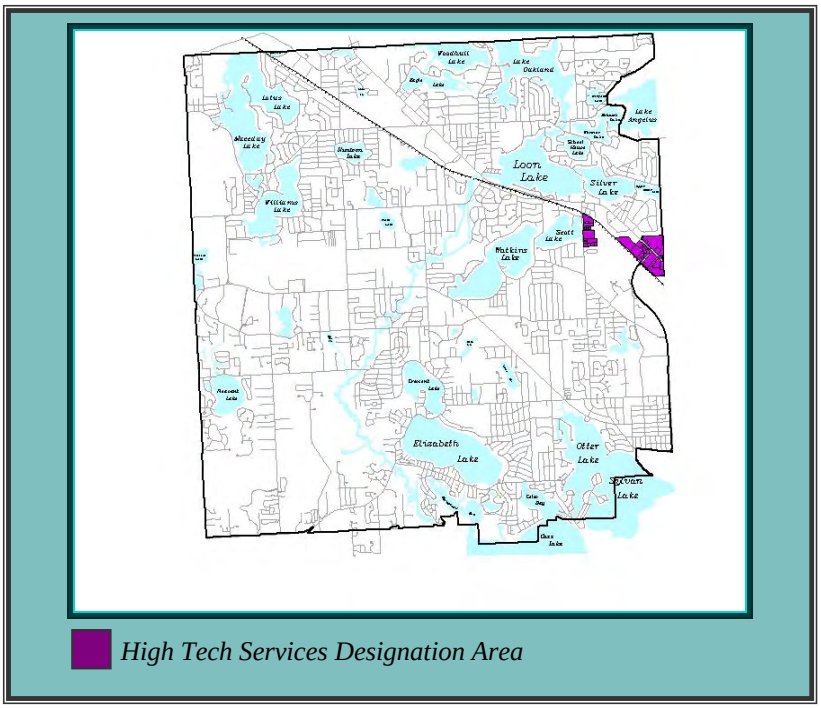


The Waterford Township Future Land Use Map 13 (page 8-28) indicates that more than two percent, or 354 acres of the total land area is reserved for the Central Community Business Master Plan designation.

High Tech Services

The High Tech Services land use designation was created by Waterford Township staff to allow for the mixture of land uses including office, commercial, and clean industrial uses. This district would be performance based, meaning that the flexibility of mixed zoning classifications and regulations would be dependent upon the design of the project and the amenities offered for public use. These land uses should occur on large assemblages of parcels. The highlighted area shown in Figure 8-3 should be redeveloped with this mixture of uses in a setting that includes the following characteristics: allowance for reduced front yard setbacks when building aesthetic provisions are met; small clusters of free-standing buildings; formal landscape plantings along Dixie Highway and Telegraph Road, creation of a linear landscape pattern; provision of infrastructure improvements to improve nonmotorized pathways and traffic calming; and coordinated streetscape amenities throughout the designation area.

Figure 8-3 Location of High Tech Services Designation Area

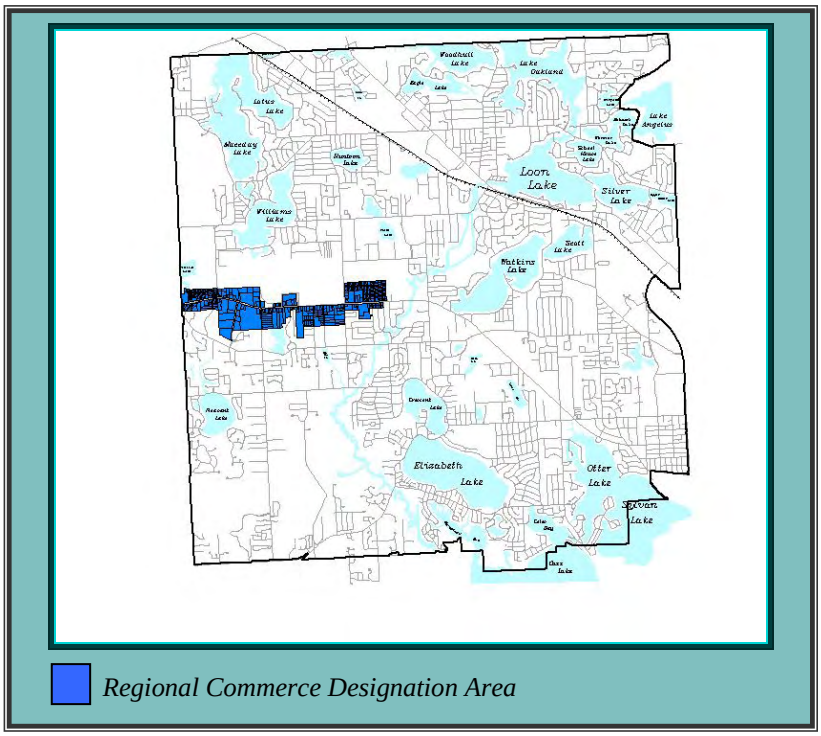


The Waterford Township Future Land Use Map 13 (page 8-28) indicates that 134 acres, or nearly one percent, of the total land area is reserved for the High Tech Services Master Plan designation.

Regional Commerce

The Regional Commerce designation is exclusively intended for property located along M-59, near the Oakland County International Airport, to allow for the mixture of commercial and office land uses that take advantage of this area's proximity to the Oakland County International Airport and Automation Alley. The highlighted area shown in Figure 8-4 should be redeveloped with a mixture of commercial, indoor recreation, and office land uses that will complement the business and economic development activities of the Oakland County International Airport clients and Automation Alley members. The redevelopment of the area should include the following characteristics: consolidation of properties to provide adequate size for office space and uses related to business clients of the Airport; strong adherence to access management and traffic calming principles; discouragement of strip commercial centers; maximized building heights that provide enhanced corporate redevelopment opportunities without endangering air traffic operations; formal landscape plantings along M-59 comparable to those installed by the Airport, creation of a linear landscape pattern; and coordinated streetscape amenities. Mid to lower density residential uses might be considered if it is located near the designation area boundaries furthest from the Airport facilities, constructed to minimize the noise impact of air and vehicular traffic, direct access to M-59 is restricted, and such development is used to buffer existing single family residential uses from commercial uses. Industrial uses, automotive related services other than sales and rentals, and other uses which do not complement the Airport and Automation Alley are discouraged.

Figure 8-4 Location of Regional Commerce Designation Area

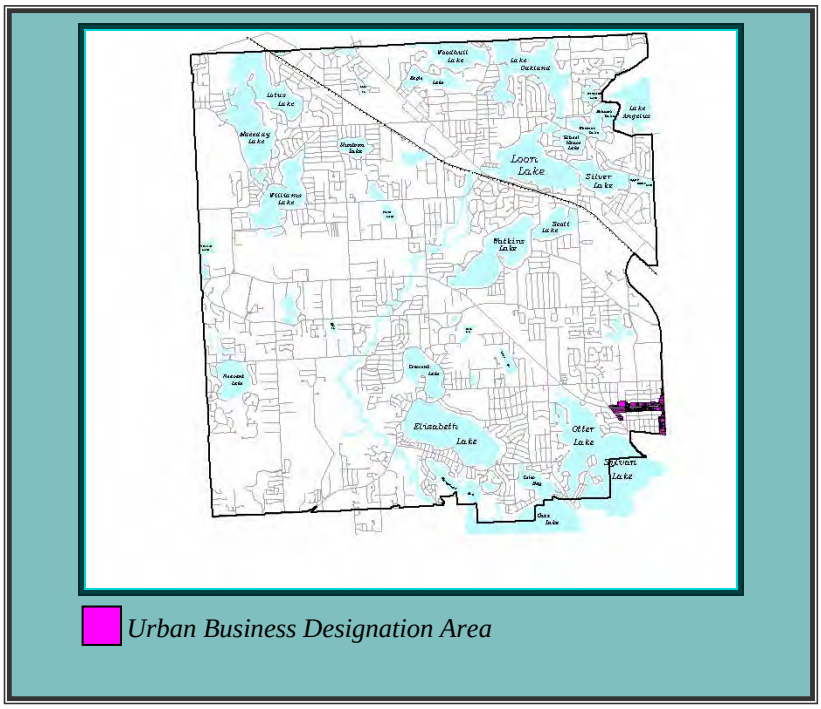


The Waterford Township Future Land Use Map 13 (page 8-28) indicates that nearly three percent, or 460 acres of the total land area is reserved for the Regional Commerce Master Plan designation.

Urban Business

The Urban Business land use designation is exclusively intended to reflect and promote the urban neighborhood area surrounding the section of M-59 on Waterford's eastern border shown in the highlighted area of Figure 8-5. This area developed in tandem with the neighborhoods on the City of Pontiac's western border. This area is characterized by small lot development and a mix of local and community businesses as well as separate single and multiple family residential land uses. This area could be compared to that of an older downtown area, with its strong sense of community identity and small-scale retail/office development. Waterford Township would like to see an emphasis placed on quality commercial and residential redevelopment efforts in this area. These uses could be coordinated into a traditional mixed use development area, where residential dwelling units are permitted above commercial uses.

Figure 8-5 Location of Urban Business Designation Area

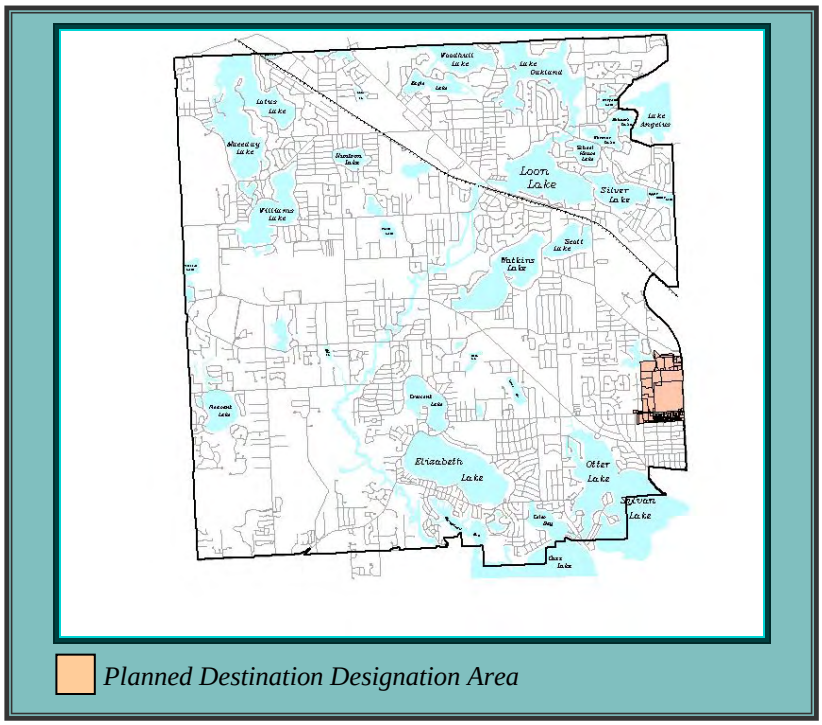


The Waterford Township Future Land Use Map 13 (page 8-28) indicates that less than one percent, or 57 acres of the total land area is reserved for the Urban Business Master Plan designation.

Planned Destination

The Planned Destination designation is exclusively intended for property shown in the highlighted area of Figure 8-6, to accommodate a variety of mixed land uses to maintain a regional retail and entertainment destination. This designation should provide for uses that are primarily related to comparison shopping, family entertainment, recreation, office, and hotel/conference centers. Allowance for multiple family residential developments designed to complement commercial and office uses are encouraged when properly located in the western portion of the designated area. The Planned Destination designation should also provide for formal landscape plantings along Telegraph Road, creating a linear landscape pattern, provision of infrastructure improvements to improve nonmotorized pathways, traffic calming, and enhanced parking areas, and coordinated streetscape amenities throughout the designation area. Automotive related services, industrial uses, outdoor merchant retail, and other uses which tend to interfere with the destination concept and hinder pedestrian circulation, are discouraged.

Figure 8-6 Location of Planned Destination Designation Area



The Waterford Township Future Land Use Map 13 (page 8-28) indicates that 246 acres, or nearly 1.5 percent of the total land area is reserved for the Planned Destination Master Plan designation.

Higher Intensity Designations

As part of the effort to achieve Master Plan Goal Six, ***To ensure and enforce land use development practices that are sensitive to Waterford's natural environment*** and Master Plan Goal Seven, ***To Retain, Enhance, and Promote Waterford's Unique Character, Sense of Community, and Identity*** *(Please refer to Chapter 9 – Implementation)*, the following land use categories are designated as part of Waterford's Future Land Use Plan, **Airport**, **Light Industrial**, and **General Industrial**. The three designations developed for this Master Plan are intended to provide for the uses associated with the Oakland County International Airport, as well as the maintenance and redevelopment of Waterford's industrial properties on the approximately six percent of Waterford's land area intended for higher intensity uses. The higher intensity industrial uses are intended to be located in areas of the Township that will minimize negative impact on surrounding non-industrial uses, particularly residential. All efforts at development and redevelopment in the higher intensity designations should be sensitive to this potential negative impact and should include extensive landscape screening and buffering, noise-control equipment and materials, as well as equipment and procedures to minimize all types of emissions.

Airport

The Oakland County International Airport (OCIA) occupies a large amount of land area within Waterford Township, as shown on the Existing Land Use Map 12 (page 8-27). The Airport land use designation accounts for the Airport grounds, runways, and runway protection zones, as well as many of the service businesses that support and rely on the OCIA. This land use designation provides for the operation of the Airport, as it currently exists, detailed in the approved OCIA master plan, land usage approved by the Waterford Township Planning Commission and Township Board, and governed by the rules and regulations of the U.S. Federal Aviation Administration and Michigan Bureau of Aeronautics.

As mentioned earlier, the OCIA has prepared its own master plan, which agrees with the Waterford Township Master Plan on the amount of land area designated for the Airport proper. The OCIA master plan includes a noise study and objectives for minimizing the impact of the airport use on the natural environment.

The Waterford Township Future Land Use Map 13 (page 8-28) indicates that more than four percent of the total land area is reserved for the Airport Master Plan designation.

Light Industrial

The intent of the Light Industrial designation is to primarily accommodate research, laboratory, wholesale activities, warehousing, light manufacturing, and planned industrial development, including development within planned industrial park subdivisions. This designation is intended to encourage innovations and variety in type, design and arrangement of industrial land uses, at all times protecting neighboring residential and commercial uses from any adverse environmental impacts. Outdoor storage is discouraged but, where permitted, should be substantially screened, particularly when adjacent to non-industrial land uses and thoroughfares. All uses within this designation should be adequately screened from adjacent residential land uses.

The Waterford Township Future Land Use Map 13 (page 8-28) indicates that one percent of the total land area is reserved for the Light Industrial Master Plan designation.

General Industrial

The General Industrial designation is intended to accommodate primarily small to medium-sized manufacturing, assembly, and fabrication operations. Large-scale industrial uses that create the highest level of environmental impact should be reviewed by the Planning Commission before such uses are permitted. Land uses in this designation should be located along major thoroughfares and along railroad lines. Outdoor storage should be permitted to meet the needs of such uses, yet should also be substantially screened, particularly when adjacent to non-industrial land uses and thoroughfares.

The Waterford Township Future Land Use Map 13 (page 8-28) indicates that more than one percent of the total land area is reserved for the General Industrial Master Plan designation.

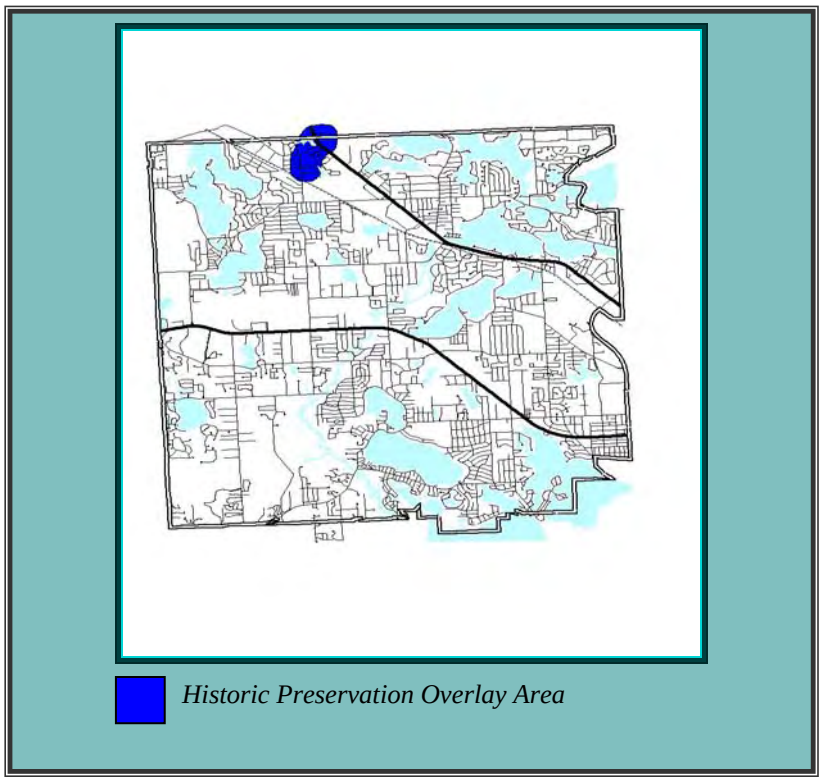
Overlay Designations

An overlay designation is a zoning tool that observes the specific zoning district attached to a parcel of land while adding new regulations to those of the underlying zone, and offering incentives to property owners and developers to achieve the goals of the Master Plan with respect to the overlay area. The overlay designation is useful for protecting areas with special characteristics, such as environmental or unique geographic qualities, and encourages mixed use development. For Waterford, three overlay designations are being proposed for implementation through the Zoning Ordinance; **Historic District**, **Open Space**, and **Gateway**.

Historic District

The purpose and intent of the Historic District Overlay is to provide flexibility for locating additional land uses within the Waterford Village Historic District when such land uses adhere to requirements that provide for the long term preservation of the historic character, small village atmosphere, and architectural history of Waterford Township. This overlay designation has been placed over the area of the Township where the Waterford Village Historic District is located, as is shown in Figure 8-7, as well as on Map 14 (page 8-29). The regulations governing this overlay shall be applied on a parcel by parcel basis for each project submitted within this designation, based on a proposed land use that the Township determines would enhance the Waterford Village Historic District area through the application of the development criteria created for such uses.

Figure 8-7 Location of Historic Preservation Overlay Area



The criteria that should be utilized in the evaluation of a proposed development on a specific property shall include, but not be limited too, the following items:

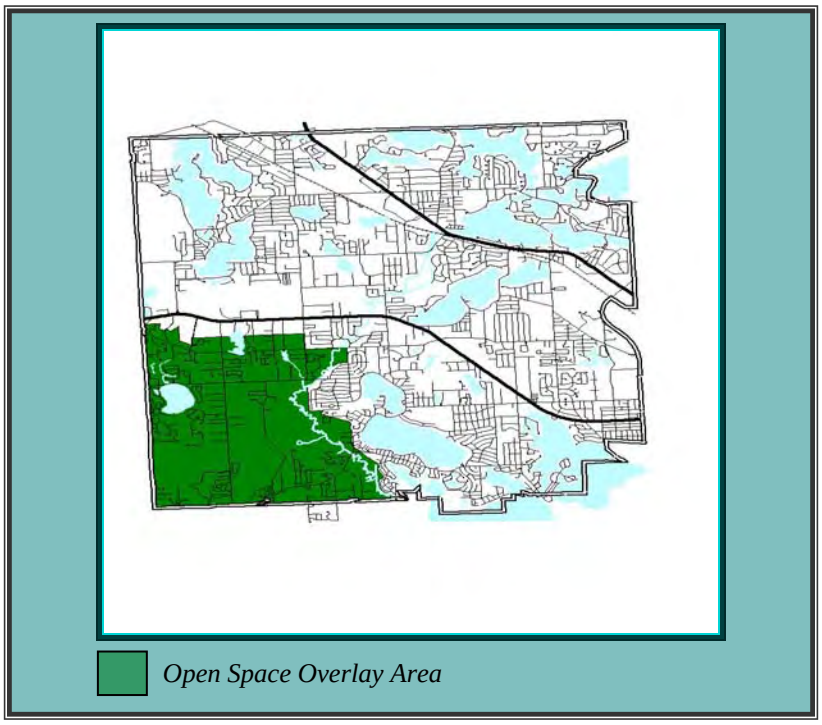
- The preservation of historic character
- The application and promotion of uniform design principles
- The promotion of nonmotorized transportation
- The encouragement of small town traffic patterns
- The protection of wetlands
- The management of storm water
- The provision for emergency vehicle access

To enhance the economic development of this area, incentives for developers to utilize this overlay district may include variations of the zoning regulations that would typically govern the subject property. These variations could include density bonuses, reduced setbacks, area coverage, and increased height limitations.

Open Space

The purpose and intent of the Open Space Overlay Master Plan designation is to allow for certain land uses while accounting for and preserving the natural features including upland areas that are present on a parcel of property. This overlay designation has been placed over much of the southwest quadrant of the Township, as is shown in Figure 8-8, as well as on Map 14 (page 8-29). The regulations governing this overlay shall be applied on a parcel by parcel basis for each project submitted within this designation, based on the presence of any natural features that the Township identifies as preservation worthy.

Figure 8-8 Location of Open Space Overlay Area



The criteria that will be utilized in the evaluation of a proposed development on a specific property shall include, but not be limited to, the following items:

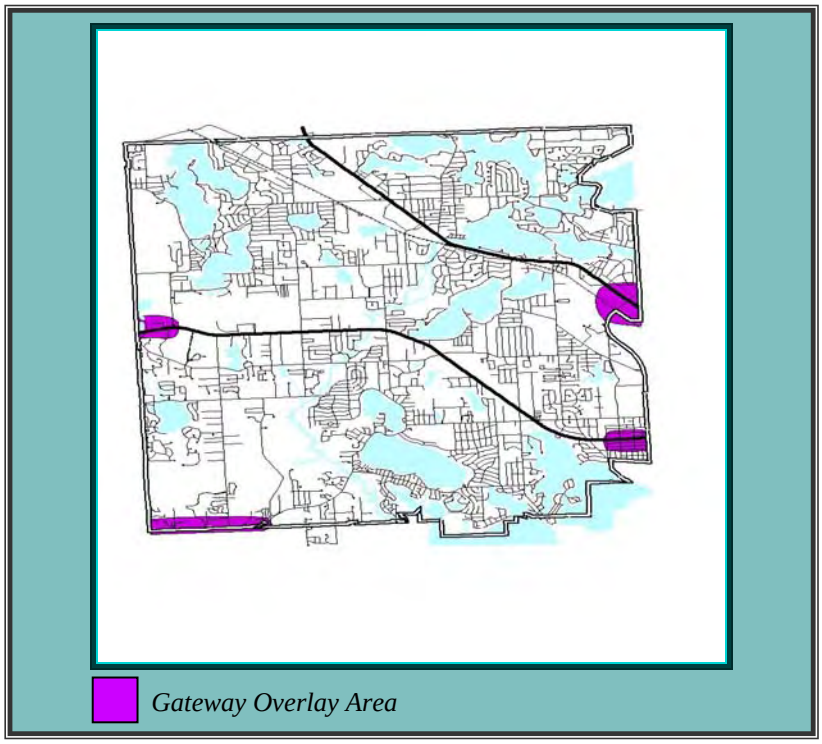
- The preservation of upland areas
- The protection of wetlands
- The preservation of wooded areas and trees
- The protection of slopes
- The management of storm water
- The utilization of Township water and sewer utilities
- The provision for emergency vehicle access
- The design principles used in the project

Incentives for developers to utilize this overlay district may include variations of the zoning regulations that would typically govern the subject property. Theses variations could include density bonuses, reduced setbacks, area coverage, and increased height limitations.

Gateway

The purpose and intent of the Gateway Overlay is to provide flexibility in locating an innovative mixture of land uses on the properties located around four of the major gateways leading into Waterford: the intersections of M-59 and Telegraph Road, M-59 and Williams Lake Road, Williams Lake Road and Cooley Lake Road, and Dixie Highway and Telegraph Road. The allowance for flexibility should be tied to requirements that provide for an enhancement of the aesthetic quality of structural and landscape design of the designated gateway areas. This overlay designation has been placed over the areas of the Township shown in Figure 8-9, as well as on Map 14 (page 8-29). The regulations governing this overlay shall be applied on a parcel-by-parcel basis for each project submitted within this designation, based on a proposed land use that the Township determines would enhance the gateway areas through the application of the development criteria created for such uses.

Figure 8-9 Location of Gateway Overlay Area



The criteria that should be utilized in the evaluation of a proposed development on a specific property shall include, but not be limited too, the following items:

- The application and promotion of innovative design principles.
- The application of a balanced mixture of land uses, including residential.
- The improvement of nonmotorized transportation infrastructure.
- The application of traffic calming measures.
- The management of storm water.
- The provision for emergency vehicle access.

To enhance the economic development of these areas, incentives for developers to utilize this overlay district may include variations of the zoning regulations that would typically govern the subject property. These variations could include density bonuses, reduced setbacks, area coverage, and increased height limitations.

TRANSPORTATION PLAN

A traffic analysis, based on traffic data gathered by the consultant, was conducted by Community Planning and Development Department staff. This analysis is being done as part of the Township's efforts to achieve Master Plan Goal Two – ***To Improve and Enhance the Transportation Network within Waterford***. The traffic analysis is being incorporated into the Master Plan as Appendix L. Additionally, several transportation improvements were recommended. These improvements include enhancing walkability in Waterford, constructing the Riverwalk, and the following proposed road improvement projects that are shown graphically on Map 15 (page 8-30).

- Realign Airport Road at Williams Lake Road
- Realign Watkins Lake Road at Scott Lake Road
- Realign Elizabeth Lake Road at Williams Lake Road
- Extend Williams Lake Road from Gale Road to connect with Nelsey Road
- Extend Crescent Lake Road from Hatchery Road to Williams Lake Road
- Divide Warren Drive into two public streets, one to serve residential properties and the other to serve industrial properties
- Construct grade separations at the Frembes, Hatchery, and Watkins Lake Road railroad crossings
- Extend Coomer Road to connect with Oregon Street
- Create linkages between existing residential developments, where economically feasible and it reasonably enhances neighborhood traffic and public safety vehicle access

Another analysis completed by staff is reflected in the proposed number of future traffic lanes on the major roads in the Township *(Please refer to Map 16 on Page 8-31)*. These components will be used as the basis to prepare the final Transportation Plan, which is intended to contribute to achieving Master Plan Goal Two. The Transportation Plan will include sections discussing in detail the Township's thoroughfares, future road lane widths, access management, traffic calming, walkability, and other transportation issues anticipated to arise during the twenty-year period of the Master Plan. During the period in which this Master Plan is effective, the Transportation Plan, when approved by the Planning Commission, is incorporated into Appendix M of the Master Plan. The intent of Appendix M is to serve as a collection point for transportation plans developed and approved as part of the Master Plan implementation efforts. Therefore, Appendix M is adopted as part of this Master Plan, by reference to the forthcoming transportation planning content, as prepared by Township staff, and when approved by the Planning Commission.

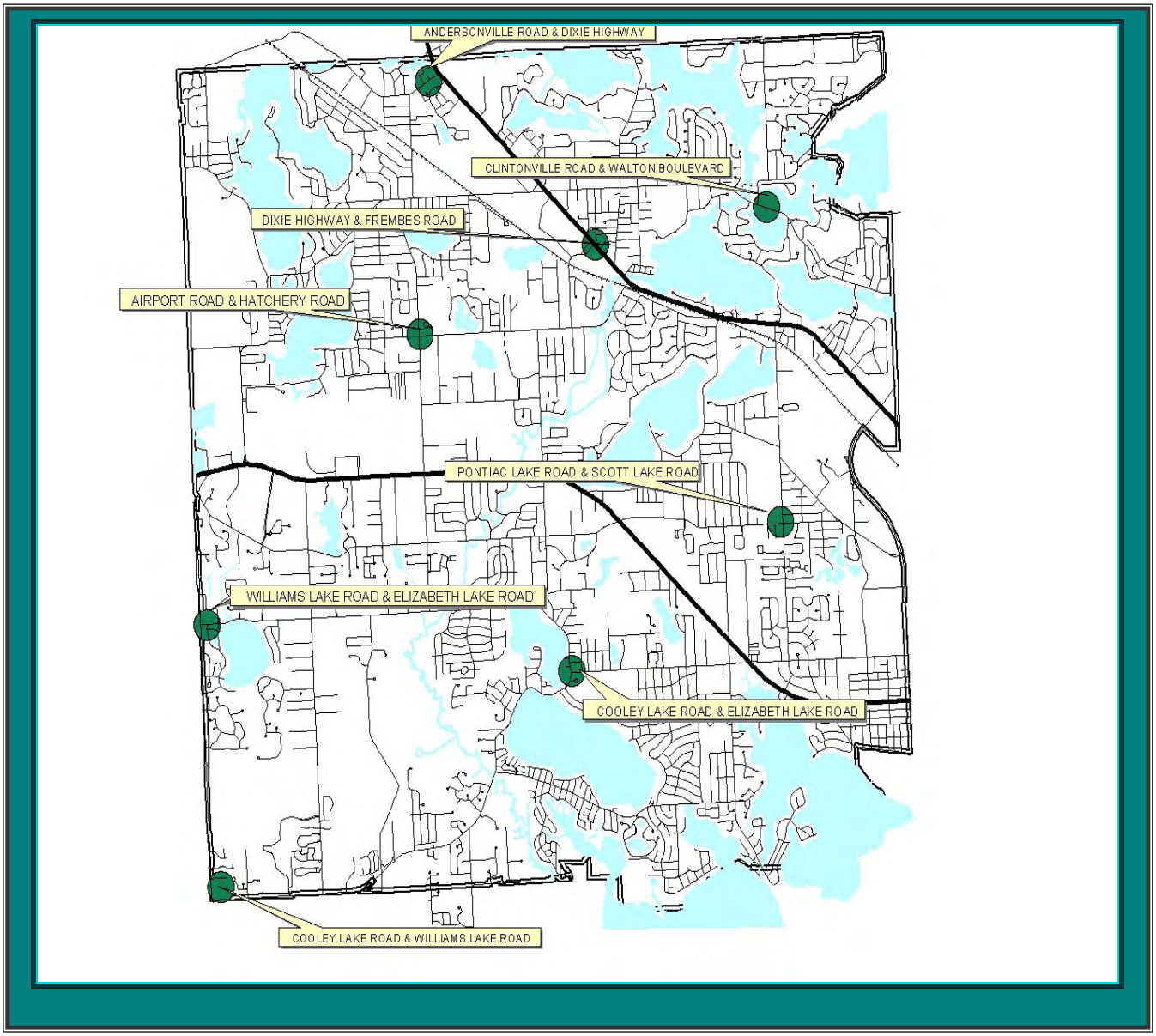
CAPITAL IMPROVEMENTS PLAN

A community facilities analysis, based on data gathered by the Community Planning and Development staff and the consultant, was completed by the staff. This analysis is intended to contribute towards the achievement of Master Plan Goal One – ***To Maintain, Improve, and Enhance Capital Infrastructure and Public Safety for the Health, Safety, and Welfare of Waterford Citizens***. The community facilities analysis is being incorporated into the Master Plan as Appendix N and will be used as the basis to prepare a capital improvements plan, which is also intended to assist in achieving Master Plan Goal One. During the period in which this Master Plan is effective, capital improvements plans will be incorporated into Appendix O. The intent of Appendix O is to serve as a collection point for the capital improvements plan and future amendments. Therefore, Appendix O is adopted as part of this Master Plan by reference to the forthcoming capital improvements planning content prepared by Township staff and approved by the Planning Commission.

SPECIAL AREAS STUDIES

The Historic District and Neighborhood Nodes Subcommittee reviewed the concept of developing neighborhood nodes throughout the Township and identified a number of potential locations for further development as neighborhood nodes *(Please refer to Chapter 7 and Appendix H)*. Utilizing this information, the eight areas shown in Figure 8-10 were selected as the Township's primary neighborhood nodes.

Figure 8-10 Location of Neighborhood Nodes Identified in the Master Plan Implementation



Simply targeting these areas as neighborhood nodes will not automatically turn them into thriving neighborhood gathering places. There will first have to be an extensive analysis and neighborhood node plan developed for each area. The development of these analyses and area plans are included as implementation action items under Master Plan Goal Seven, ***To Retain, Enhance, and Promote Waterford's Unique Character, Sense of Community, and Identity***. As each of the neighborhood node plans are developed by Community Planning and Development staff, the Planning Commission will review and comment on each plan before approving the plan as part of Appendix P-Neighborhood Node and Area Concept Plans.

Achieving Master Plan Goal Seven will also be accomplished through the development of analyses and area concept plans for some of the specialized land use designation areas. Each of the Township's gateway areas, the central community business area, the regional commerce area, the planned destination area, and urban business area will be targeted as action items in the implementation phase of the Master Plan. Any other areas targeted by the Planning Commission as warranting an area concept plan in order to achieve the goals of the Master Plan will also be conducted by Community Planning and Development Department staff. As each of these plans are developed by staff, the Planning Commission will review and comment on each plan before approving the plan as part of Appendix P-Neighborhood Node and Area Concept Plans.

During the period in which this Master Plan is effective, all neighborhood node and area concept plans approved as completed Master Plan implementation action items by the Planning Commission are incorporated into Appendix P of the Master Plan. The intent of Appendix P is to serve as a collection point for plans developed and approved as part of the Master Plan implementation efforts. Therefore, Appendix P is adopted as part of this Master Plan by reference to the forthcoming content, as prepared by Township staff and when approved by the Planning Commission.

RECREATION PLAN

The Waterford Parks and Recreation Department is required to conduct a five year Recreation Plan in order to qualify for receipt of state grant funding to address the recreation needs established in the plan. The last Recreation Plan was adopted in 1997 and remained effective through early 2002. The next version of the Recreation Plan is being prepared concurrently with this Master Plan, and should be ready for adoption sometime in early 2003. Once adopted, this version of the Recreation Plan will remain in force for five years. During the period in which this Master Plan is effective, the operative Recreation Plan is adopted as Appendix R of this Master Plan, by reference.

WALKABILITY STUDY

As described in Chapter 6, Waterford's Economic Development Corporation (EDC) funded a Walkability Study for the primary purpose of improving the development potential in Waterford Township. The EDC realized the important role pedestrian and bike access contributes to the quality of life, and wished to contribute this study as part of the Township's master planning efforts. The Walkability Study reviewed the existing conditions of Waterford Township's nonmotorized pathways and, based on that review and citizen input, identified opportunities for and constraints to improving the walkability of the Township. Objectives included basing future improvements on walkability principles, and including an extensive community participation component as part of the process.

There were two outcomes of the Study. The process allowed for a prioritization by the community of possible improvements with regard to walkability. The other outcome of the study was a project area, which incorporates several walkable pilot projects. Sidewalks, bike lanes, sign-shared roadways and crosswalk enhancements are the pilot projects that work together to connect schools, parks, and the Civic Center.

The Walkability Study was prepared by Beckett & Raeder, Inc. of Ann Arbor, Michigan with the objective of presenting the Township with a document that could be used to implement the walkability projects identified in the study. Because the implementation of this study achieves Master Plan Goal Three, ***To Enhance the Walkability of Waterford***, the May 2001 Waterford Walkability Study is adopted as Appendix S of this Master Plan by reference.

WELLHEAD PROTECTION PLAN

The groundwork for Waterford Township's Wellhead Protection Plan began in 1991 with the formulation of a Master Groundwater Protection Program. The program's goal was to address the issues associated with protecting groundwater in a multi-faceted approach reaching across several departmental boundaries.

A study was initiated to prioritize the existing municipal well sites according to the need for completion of a wellhead plan. Zoning Ordinance standards were developed for groundwater protection. Subdivision regulations were amended to include design standards specifically addressing protection of groundwater and alternative review standards within sensitive wellhead zones.

In 1997, Waterford Township commenced organization of its Wellhead Protection Plan, expanding from the Oakland County Wellhead Protection Program, which they had joined in 1996. Enlisting the services of Snell Environmental Group, Inc. (now DLZ Michigan, Inc.), delineation studies of the first group of well sites was begun and the Wellhead Protection Team was formed.

The Waterford Township Wellhead Protection Team has met several times over the past two years, to develop the Waterford Township Wellhead Protection Plan. This plan is the result of the dedicated and cumulative effort on the part of the Waterford Township Wellhead Protection Team. The Team will continue to develop the Wellhead Protection Plan as it evolves in response to the ever-changing influence of social, economic, environmental and political impacts. Because the implementation of this study achieves Master Plan Goal One, ***To Maintain, Improve, and Enhance Capital Infrastructure and Public Safety for the Health, Safety, and Welfare of Waterford Citizens***, and Master Plan Goal Six, ***To Ensure and Enforce Land Use Development Practices that are Sensitive to Waterford's Natural Environment***, the Wellhead Protection Plan is adopted as Appendix T of this Master Plan by reference.

OAKLAND INTERNATIONAL AIRPORT MASTER PLAN

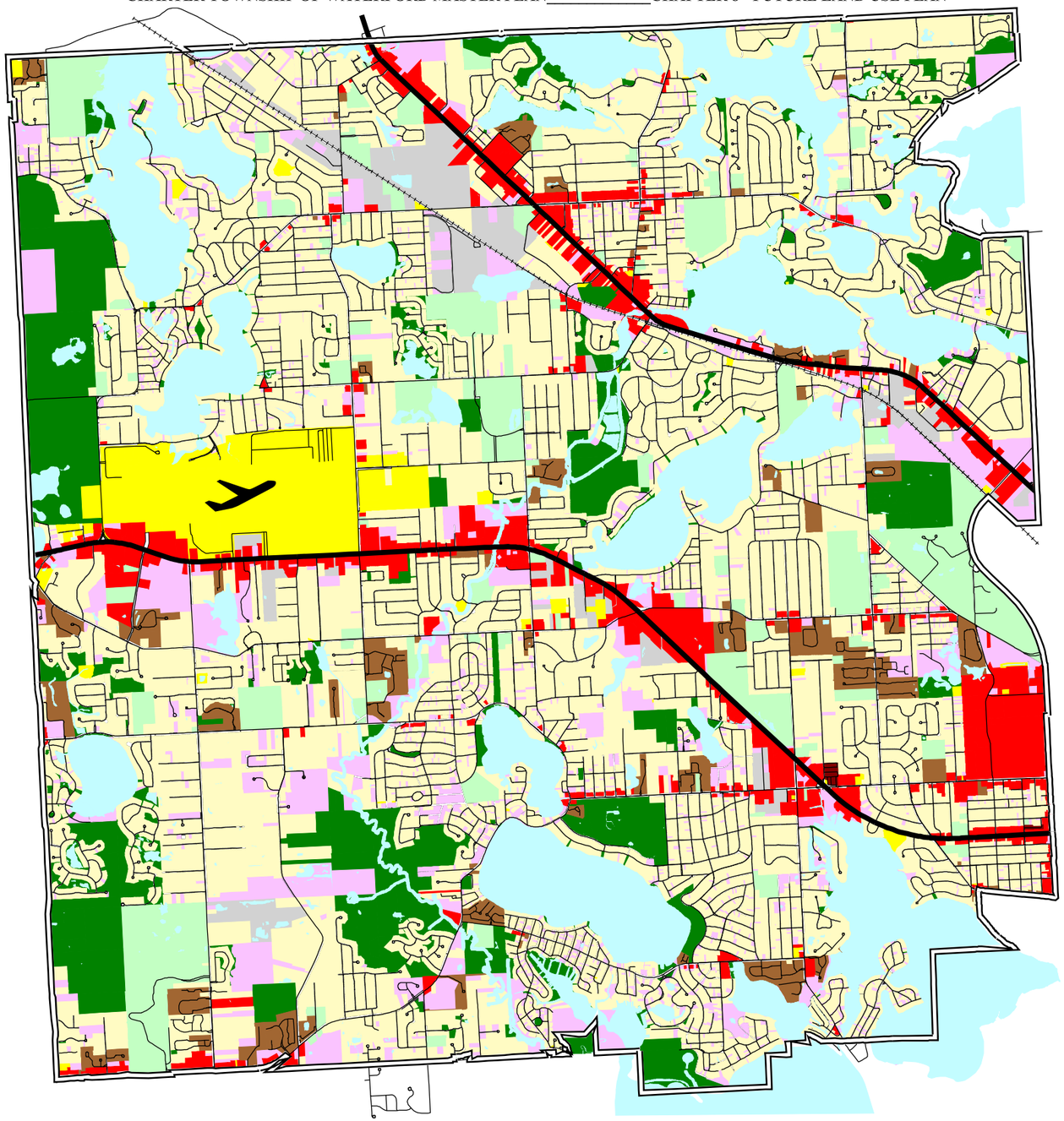
The Oakland County International Airport (OCIA) is located in the western section of the Township and is owned and operated by Oakland County. The OCIA is a general aviation airport that is situated on over 600 acres. The OCIA continually works on providing a safe and efficient airport facility that is balanced with efforts to minimize the environmental impact of the airport use. The commitment to these efforts is reflected in the OCIA's master planning process. The OCIA Master Plan has been prepared to assess and direct improvements that will be required to accommodate future aviation demands. One of the purposes of this plan is to document long-term development recommendations. These recommendations are, in part, summarized in the OCIA capital improvement project list that has been prepared as part of the master planning documentation. The Oakland County International Airport Master Plan is adopted as Appendix U of this Master Plan, by reference, because the implementation of this plan achieves Master Plan Goal One, ***To Maintain, Improve, and Enhance Capital Infrastructure and Public Safety for the Health, Safety, and Welfare of Waterford Citizens***, Master Plan Goal Two, ***To Improve and Enhance the Transportation Network within Waterford***, Master Plan Goal Four, ***To Create an Economic Climate Conducive to the Attraction, Retention, and Expansion of Business***, Master Plan Goal Six, ***To Ensure and Enforce Land Use Development Practices that are Sensitive to Waterford's Natural Environment***, and Master Plan Goal Seven, ***To Retain, Enhance, and Promote Waterford's Unique Character, Sense of Community, and Identity***.

WATERFORD SCHOOL DISTRICT MASTER PLAN

The Waterford School District (WSD) is instrumental to the successful education of Waterford's children, as well as an important partner in the provision of community services to Waterford citizens. The WSD owns over 530 acres of property throughout the Township to use for current and future needs. The WSD, a governmental organization that derives its powers and responsibilities from the Michigan State Legislature, undergoes its own master planning process to assess and direct improvements that will be required to achieve its mission. The active Waterford School District Master Plan documents are adopted as Appendix V of this Master Plan, by reference, because the implementation of this plan achieves Master Plan Goal Four, ***To Create an Economic Climate Conducive to the Attraction, Retention, and Expansion of Business***, Master Plan Goal Five, ***To Provide Improved Recreational Opportunities to Waterford Citizens***, and Master Plan Goal Seven, ***To Retain, Enhance, and Promote Waterford's Unique Character, Sense of Community, and Identity***.

OAKLAND COUNTY SERVICE CENTER COMPLEX MASTER PLAN

A portion of the Oakland County Service Center Complex is located on nearly 200 acres of property in the eastern section of the Township. Combined with the adjoining property in the City of Pontiac, this Complex is the County Seat. The active Oakland County Service Center Master Plan documents are adopted as Appendix W of this Master Plan, by reference, because the implementation of this plan achieves Master Plan Goal One, ***To Maintain, Improve, and Enhance Capital Infrastructure and Public Safety for the Health, Safety, and Welfare of Waterford Citizens***, Master Plan Goal Two, ***To Improve and Enhance the Transportation Network within Waterford***, Master Plan Goal Four, ***To Create an Economic Climate Conducive to the Attraction, Retention, and Expansion of Business***, and Master Plan Goal Seven, ***To Retain, Enhance, and Promote Waterford's Unique Character, Sense of Community, and Identity***.



Waterford Township Master Plan

Current Land Use

Legend

- Single Family Residential
- Multiple Family Residential
- Mobile Home Park
- Public/Institutional
- Recreation/Conservation
- Commercial
- Industrial
- Vacant
- Water
- Transportation, Utilities & Communications

- Township Boundary
- Major Roads
- Roads
- Railroad

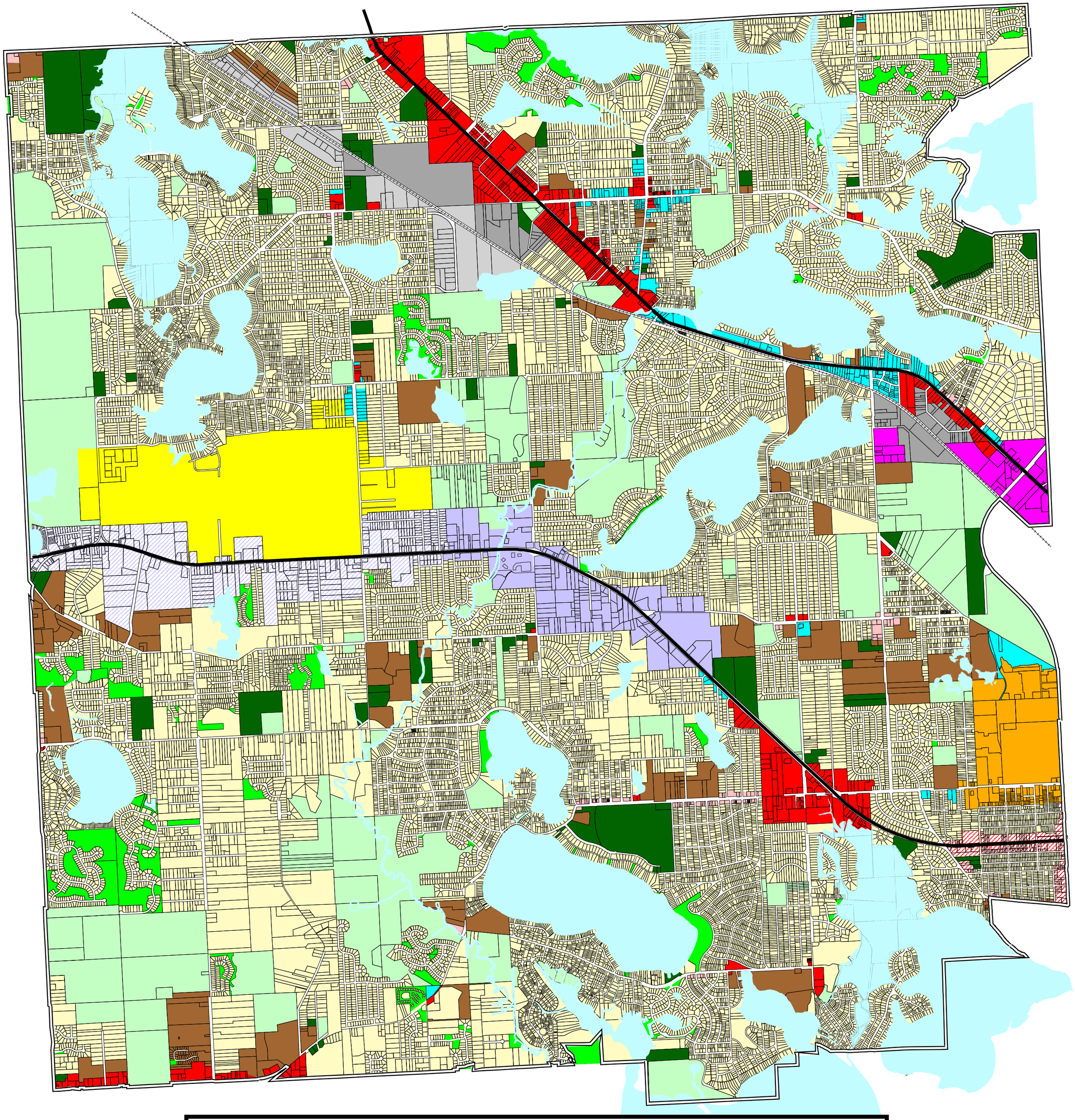
N
W E
S

This map is intended to provide general information only. For more detailed map information on the topic of this map, please visit the Charter Township of Waterford web site at www.twp.waterford.mi.us or contact the Community Planning & Development Department at (248) 674-6256.

Source: Waterford Township Community Planning & Development Department

Map #12

January 2, 2003



Waterford Township Master Plan

FUTURE LAND USE

Source: Waterford Township Community Planning & Development Department

Map #13

January 2, 2003

Legend

Road ROW

Township Boundary

Major Roads

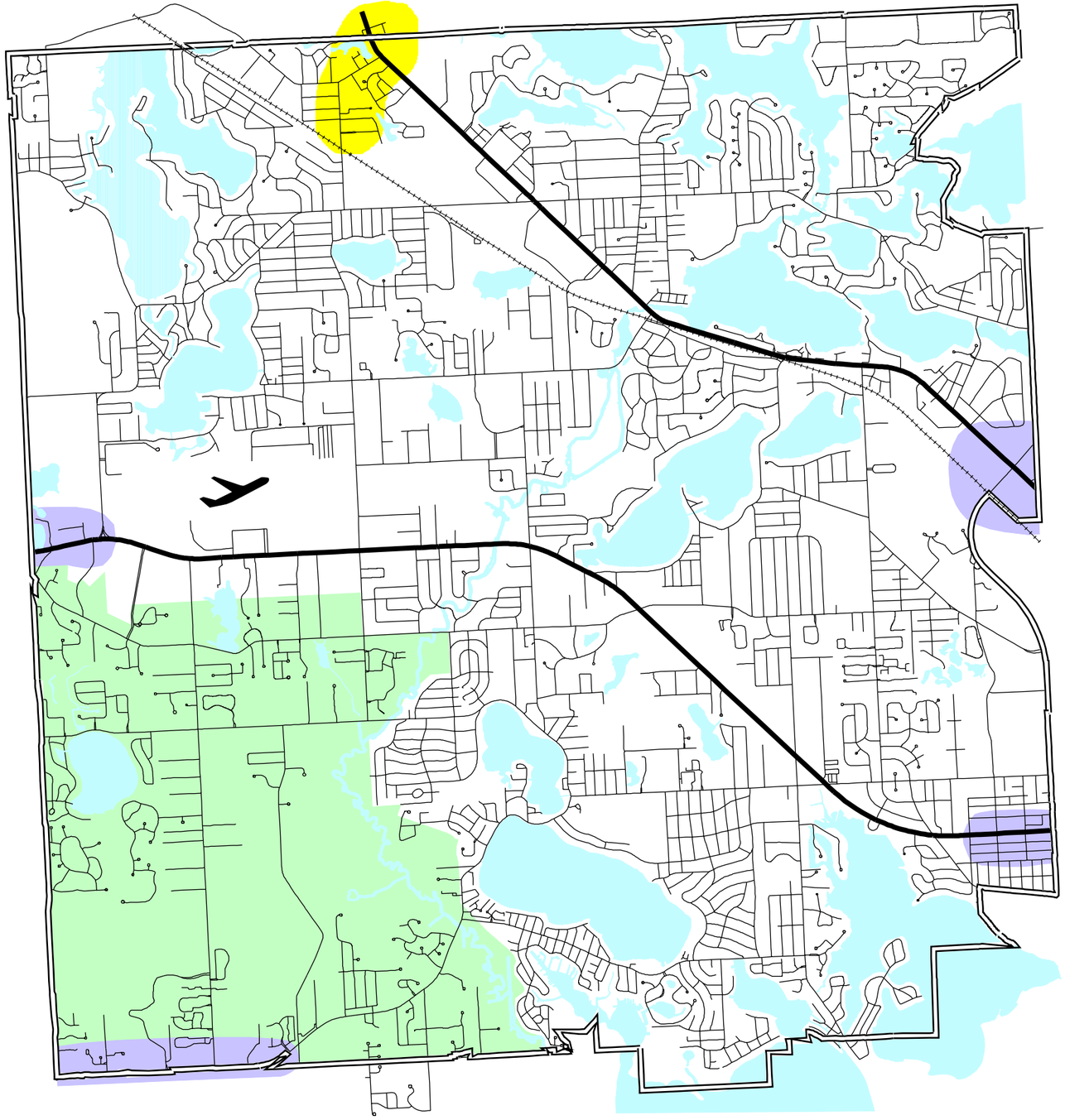
Rail Road

Residential
- Single Family
- Multiple Family

Public & Open Space
- Public Lands
- Quasi-Public Lands
- Private Common Areas

Higher Intensity
- Light Industrial
- General Industrial
- Airport

Commercial/Office
- Local Business
- Community Business
- High Tech Services
- Central Community
- Urban Business
- Planned Destination
- Regional Commerce
- Office



Waterford Township Master Plan

FUTURE LAND USE

PROPOSED OVERLAY DESIGNATION AREAS

Legend

- Gateway Overlay
- Historic Preservation Overlay
- Open Space Overlay

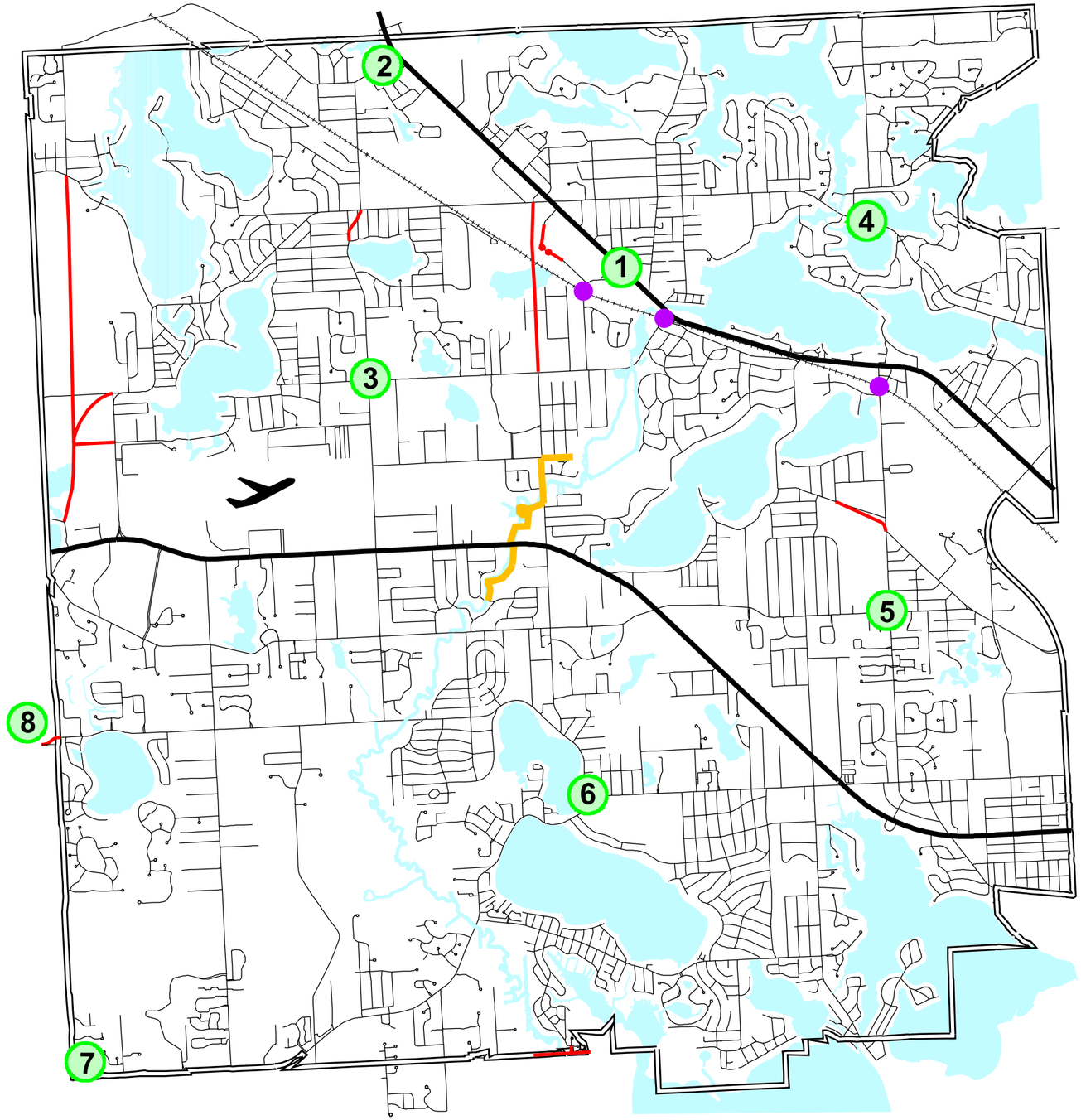
- Township Boundary
- Major Roads
- Roads
- Railroad

N
W E
S

Source: Waterford Township Community Planning & Development Department

Map #14

February, 2003



Waterford Township Master Plan

FUTURE LAND USE

PROPOSED TRANSPORTATION INPROVEMENTS & NEIGHBORHOOD NODES

Neighborhood Nodes

1. Dixie Hwy/Frembes Road
2. Dixie Hwy/Andersonville Road
3. Hatchery Road/Airport Road
4. Clintonville Road/Walton Blvd
5. Pontiac Lake Road/Scott Lake Road
6. Cooley Lake Road/Elizabeth Lake Road
7. Cooley Lake Road/S Williams Lake Road
8. Elizabeth Lake Road/S Williams Lake Road

Riverwalk - Ped Trail
Proposed Road Improvements
Proposed Grade Separations

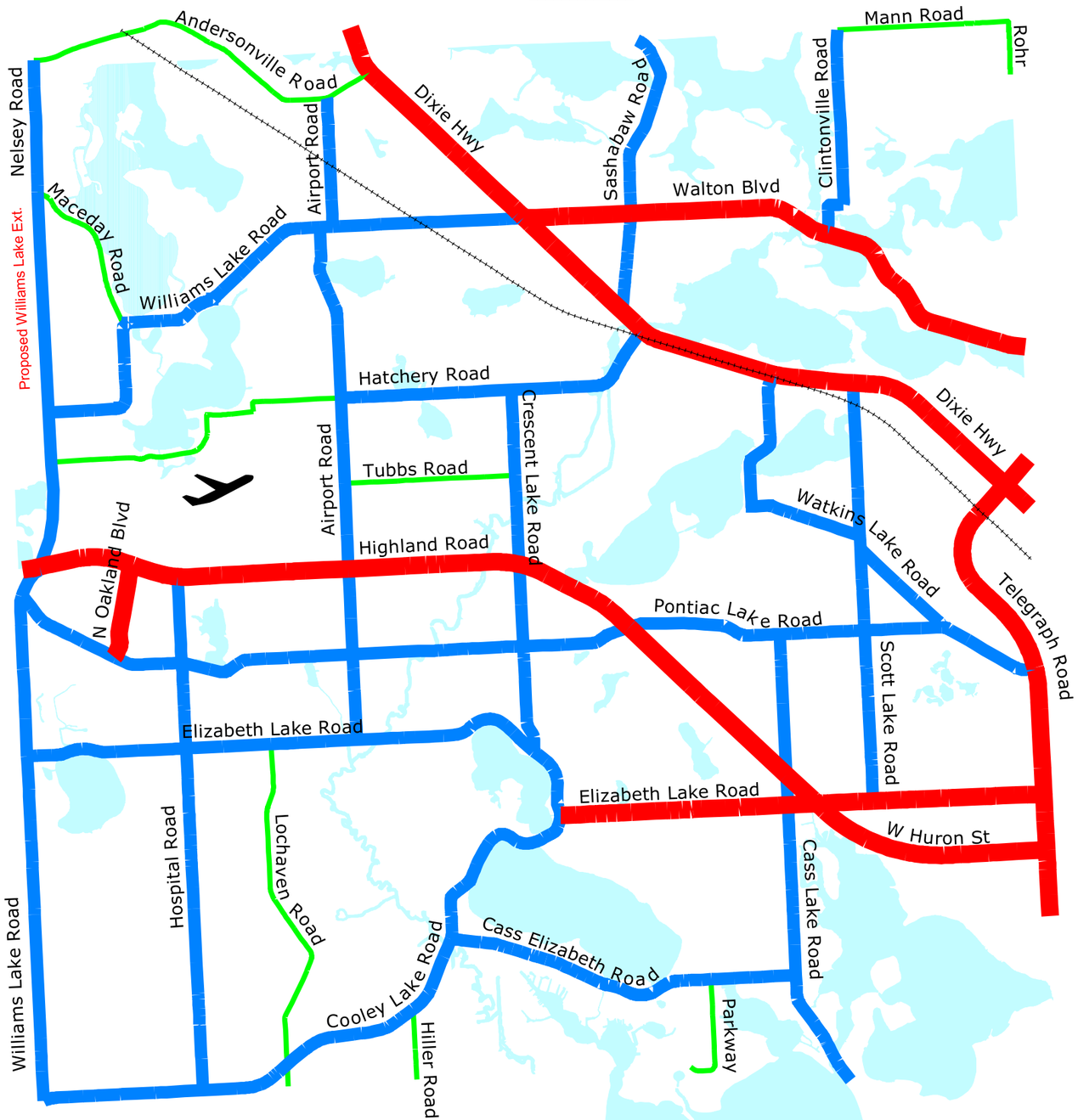
Township Boundary
Major Roads
Roads
Railroad

N
W E
S

Source: Waterford Township Community Planning & Development Department

Map #15

February, 2003



Waterford Township Master Plan

PROPOSED MAXIMUM TRAFFIC LANES

Based on Build-out Conditions

Legend

- 2 Lanes
- 3 or 4 Lanes
- 4 Lanes with Enhanced Median
- Rail Road

Source: Waterford Township Community Planning & Development Department

Map #16

January 2, 2003

CHAPTER 9 – IMPLEMENTATION

The Planning Commission initiated the current master planning process with the intent to involve citizens in the development of a dynamic Master Plan. No matter how involved the citizens were, the vitality gained through its development will be lost unless the Master Plan is actively implemented. Therefore, once adopted, implementation must involve citizen commitment and be pursued aggressively in order to achieve the Master Plan goals and objectives.

This chapter establishes the foundation for implementing the Master Plan. In addition to the Planning Commission, the responsibility for ensuring that the Master Plan is implemented will largely rest with the Township Board, other boards and commissions established by the Township Board, and the administrative positions described in Chapter 4 of this document. The success of the Master Plan's implementation will rest upon the conscious efforts of the various members of the Township government to actively incorporate the implementation of Master Plan goals and objectives into all Township actions. The implementation process consists of the following components: the Future Land Use Plan described in Chapter 8, implementation goals, fiscal tools, legislative policy-making, administration and enforcement, citizen education and promotion, and evaluation. The following provides a description of the essential components of Waterford's Master Plan implementation process.

IMPLEMENTATION GOALS

The goals and objectives developed by the Master Plan Subcommittees and described in Chapter 7 were reviewed and analyzed by the Planning Commission to determine the major themes. Seven major themes were found and identified as the Master Plan Goals to be achieved during the next twenty years. Using the Subcommittees' work, objectives were established for each of the seven goals. Action strategies were then developed for each objective. These Master Plan goals, objectives and strategies provide the analytical structure from general concept to specific action. Each goal statement establishes an outcome for achieving an ideal community. The objectives establish the route to accomplishing the goal, and each set of strategies are action items intended to achieve the objectives. The goals, objectives, and strategies are listed in random order. During the life of this Master Plan, the following is the detailed list of the goals, objectives, and strategies that Waterford intends to implement along with the Future Land Use Plan outlined in Chapter 8.

GOAL ONE
TO MAINTAIN, IMPROVE, AND ENHANCE CAPITAL INFRASTRUCTURE AND PUBLIC SAFETY FOR THE HEALTH, SAFETY, AND WELFARE OF WATERFORD CITIZENS

Objective 1-1
Maintain and Enhance Existing Level of Fire Protection and Emergency Medical Services

Strategies to Achieve Objective 1-1

- **a.** Continue the maintenance, update, and effective fire fighting coverage of Township fire hydrants.
- **b.** Ensure sufficient facilities, staffing, equipment, and training levels for effective and prompt fire fighting and EMS coverage of all areas of the Township.
- **c.** Investigate and adopt, when economically feasible, new technologies which enhance and expand fire fighting, prevention, detection, and emergency medical response capabilities.
- **d.** Maintain and enhance the use of the Township GIS for analysis of fire prevention, fire fighting, and EMS capabilities.
- **e.** Provide continuing education and training in fire safety and prevention, first aid, and CPR to all citizens.
- **f.** Advocate the installation of affordable medical and fire safety technologies in all homes and workplaces.
- **g.** Develop and maintain disaster plans for effective handling of potential natural and man-made disasters.
- **h.** Require effective fire safety and prevention systems in all development and redevelopment efforts.

Objective 1-2
Maintain and Enhance Existing Level of Water and Sewer Services

Strategies to Achieve Objective 1-2

- **a.** Ensure sufficient facilities, staffing, equipment, and training levels for the safe and effective operation and maintenance of the Township's water and sewer systems.
- **b.** Utilize the Township capital improvement planning process to promote and implement water and sewer system capacity improvements.
- **c.** Utilize the Township capital improvement planning process to promote and implement a preventative water and sewer line maintenance and replacement schedule.
- **d.** Maintain and enhance the use of the Township GIS and other appropriate electronic information systems for the effective operation, analysis, and capital maintenance tracking of the Township water and sewer systems.

e. Investigate and adopt, when economically feasible, new technologies which enhance and expand efficient, effective, safe, and healthy water and sewer systems.
f. Promote and enforce the installation of water line loop systems.
g. Investigate, adopt, and enforce ordinance and policy measures to protect and enhance the environmental quality of the Township's water supply.

Objective 1-3
Improve the Storm Drainage System

Strategies to Achieve Objective 1-3

a. Fund and conduct a master storm water management and infrastructure improvement plan in accordance with State of Michigan and U.S. Environmental Protection Agency guidelines to evaluate the existing and future storm drainage capacity needs of the Township.
b. Investigate the feasibility of creating and implementing an administrative structure and funding authority which provides an effective unified approach to managing, maintaining, and improving the storm drainage system within the Township.
c. Maintain and enhance the use of the Township GIS and other appropriate electronic information systems to map and analyze all storm drainage systems within the Township.
d. Develop, implement, and enforce effective policies and best management practices to ensure the maintenance, capacity, and quality of the storm drainage system with the assistance and support of all governmental agencies responsible for stormwater management in the Township.
e. Ensure that all new development and redevelopment projects are thoroughly evaluated and constructed to accommodate and not overburden the storm drainage system capacity within the Township.
f. Investigate and adopt the most effective means of enforcing updated engineering storm water discharge standards.
g. Require the utilization of best management practices, including requirements for detention/retention, for new development and redevelopment projects within Waterford.
h. Develop and disseminate information to all citizens regarding measures to minimize structural damage caused by insufficient or improper drainage techniques.

Objective 1-4
Improve and Enhance the Power and Communication Utilities Infrastructure within the Township

Strategies to Achieve Objective 1-4

a. Promote the conversion of all overhead utility wires to underground lines.
b. Ensure that utility and communication companies possess the capacity to provide modernized, full and uninterrupted service for proposed land uses.
c. Map in GIS the location and capacity of all utility lines.
d. Develop a map of prioritized areas where existing overhead utilities should be installed underground.
e. Develop a map of all areas currently being served by fiber-optic lines.

Objective 1-5
Maintain and Enhance Existing Level of Police Protection

Strategies to Achieve Objective 1-5

- **a.** Ensure sufficient facilities, staffing, equipment, and training levels for effective and prompt police protection and safety coverage of all areas of the Township.
- **b.** Investigate and adopt, when economically feasible, new technologies that enhance and expand crime prevention, detection, and public safety.
- **c.** Maintain and enhance the use of the Township GIS for analysis of crime prevention, detection, and solution.
- **d.** Provide continuing education and training in public safety to all citizens.

Objective 1-6
Improve and Enhance the Township's Capital Facilities and Infrastructure Planning

Strategies to Achieve Objective 1-6

- **a.** Establish a Township capital improvement planning process to prepare, adopt, and use a Township Capital Improvements Plan.
- **b.** Encourage Planning Commission participation in the capital improvement planning review process to provide guidance to the Township Board on accomplishing Master Plan Goals.

GOAL TWO
TO IMPROVE AND ENHANCE THE TRANSPORTATION NETWORK WITHIN WATERFORD

Objective 2-1
Improve Roads within Waterford Township

Strategies to Achieve Objective 2-1

- **a.** Continue to improve and expand the proactive and effective partnership between the Township and the public road agencies to achieve quality public road improvements, maintenance, traffic flow, and safety in Waterford Township.
- **b.** Develop a Waterford Township Transportation Plan as an active component of the Township's Master Plan, which will establish the improvement priorities necessary to achieve the Master Plan Goals.
- **c.** Develop and maintain an annual road needs review process as part of the Waterford Township Transportation Plan.
- **d.** Incorporate priority road maintenance and improvements into the Capital Improvements Plan in accordance with the objectives as expressed in Maps 15 and 16 on Pages 8-30 and 8-31, as well as in Appendices L and N.
- **e.** Establish and utilize a database for evaluating existing road system conditions based on scoring criteria.

Objective 2-2
Improve North-South Mobility in Waterford Township

Strategies to Achieve Objective 2-2

- **a.** Explore, research, plan, and develop funding sources for realignment and extensions of existing roads, where feasible, to eliminate safety hazards and improve traffic flow.
- **b.** Promote and develop funding sources for paving of unimproved sections of the primary road network.
- **c.** Promote and develop funding sources for primary road network improvements.
- **d.** Identify, research, and analyze impediments to traffic flow and safety.
- **e.** Prepare and promote plan to eliminate impediments identified in Strategy 2-2.c.

Objective 2-3
Diversify Transportation Options

Strategies to Achieve Objective 2-3

- **a.** Research, develop, fund, and implement a plan to provide dependable and safe transportation for prospective users who are housebound, such as senior and disabled citizens.

b. Conduct a planning study to investigate mass transit needs, identify target populations, and analyze the capital and annual costs in providing mass transit services in Waterford.
c. Develop and implement policies and programs to ensure that all residents and visitors are capable of enjoying Waterford by both motorized and nonmotorized modes of transportation.
d. Establish an advisory committee consisting of local business owners, transportation officials, and residents, to review and recommend mass transit options for Waterford residents.

Objective 2-4
Improve Traffic Safety

Strategies to Achieve Objective 2-4

a. Assist road agencies through the use of GIS and other analytical tools to prioritize, develop, and fund plans and programs to eliminate existing traffic hazards and conflicts between different modes of transportation.
b. Identify key intersections for design improvements to increase transportation efficiency within the Township.
c. Develop and implement stricter traffic impact studies, access management ordinance requirements and policies for new development and redevelopment projects.
d. Promote efforts to partner with traffic safety organizations and utilize all Township communication resources to educate citizens on traffic safety.
e. Actively enforce traffic safety laws.

Objective 2-5
Enhance the Safety of the Waterford Village Historic District

Strategies to Achieve Objective 2-5

a. Research, develop, and implement traffic calming and walkability measures in and adjacent to the District *(Please refer to Map 10 on Page 7-47 in Chapter 7 for the location of the District)*.
b. Evaluate, promote, and implement methods that slow down and discourage cut-through traffic while maintaining continuous access for residents and public safety personnel.
c. Develop and implement an active role for the Township's Historic District Commission in enhancing and promoting transportation safety within the District.

GOAL THREE
TO ENHANCE THE WALKABILITY OF WATERFORD

Objective 3-1
Expand and Improve Nonmotorized Paths

Strategies to Achieve Objective 3-1

- **a.** Develop, fund, and implement a master nonmotorized path construction and maintenance plan, incorporating priority projects into the Township's Capital Improvements Plan.
- **b.** Construct connections between existing segments of nonmotorized paths.
- **c.** Establish the Walkability Study pilot project, and connection of all Waterford parks and schools to nonmotorized path system, as the highest nonmotorized path priorities.
- **d.** Install and maintain nonmotorized path links between neighborhood nodes *(Please refer to Figure 8-10 on Page 8-22 in Chapter 8 for the location of the nodes).*
- **e.** Maintain and improve existing segments of nonmotorized paths.
- **f.** Investigate, recommend, and adopt a stable funding source for full implementation of the Township's master nonmotorized path construction and maintenance plan.
- **g.** Establish and utilize a GIS database for evaluating the condition of the existing nonmotorized path system components in Waterford Township based on scoring criteria.
- **h.** Promote efforts to utilize all Township communication resources to educate citizens on the benefits of walking using nonmotorized paths.

Objective 3-2
Develop and Promote a Waterford Riverwalk Pedestrian Pathway

Strategies to Achieve Objective 3-2

- **a.** Develop a Riverwalk Master Plan, with active input from property owners and residents along and near the Clinton River, to map the location of each new and existing nonmotorized path segment being proposed to become part of the Riverwalk system and to estimate installation and maintenance costs of each of the proposed segments.
- **b.** Seek and apply for alternative funding sources, whenever possible, to complete the remaining segments of the Riverwalk system.
- **c.** Explore opportunities to link the Waterford Riverwalk system to nonmotorized systems in adjacent communities.
- **d.** Incorporate Riverwalk project components in the Capital Improvements Plan.

GOAL FOUR
TO CREATE AN ECONOMIC CLIMATE CONDUCIVE TO THE ATTRACTION, RETENTION, AND EXPANSION OF BUSINESS WITHIN WATERFORD

Objective 4-1
Develop and Utilize Township Capacity for Proactive Economic Development

Strategies to Achieve Objective 4-1

a. Develop, fund, and implement Township staff to undertake and facilitate economic development activities and programs.

b. Develop and utilize printed and electronic procedural manuals to guide citizens and businesses through the Township's development processes.

c. Encourage Township staff to analyze, and revise when necessary, the current procedures and policies involving services to the Waterford business and development community for effectiveness, efficiency, and consistency with the Master Plan goals and objectives.

d. Develop, promote, and implement conceptual plans for areas within the Township to focus redevelopment efforts.

e. Explore and aggressively utilize all available economic development, planning, and analysis tools to actively promote business retention and the relocation of new businesses and technology-based companies to Waterford.

f. Develop cooperative partnerships, adopt flexible planning and zoning tools, and actively utilize economic development tools to ensure the continued redevelopment and economic viability of the regional destinations located in the Township.

g. Revise the Zoning Ordinance to implement the Master Plan's future land use designations, establish bulk standards for commercial and industrial developments which are comparable to those adopted in similar-sized communities, and provide a modern, balanced, and effective enforcement tool.

h. Develop, advocate, and implement a business registration program.

i. Encourage and promote the provision of safe, high-speed, and cost-effective modern communication and information systems for use by Waterford businesses.

j. Establish and promote a rational tax abatement incentive policy.

Objective 4-2
Market Waterford Township as a Destination for Business Activities

Strategies to Achieve Objective 4-2

a. Identify and establish partnerships with other governmental agencies and business organizations to actively promote and market Waterford as a prime business location.

b. Develop and disseminate marketing materials promoting Waterford Township utilizing all available media.

c. Promote Waterford as a member of Automation Alley, home of the Oakland County International Airport, and other notable points of interest.

Objective 4-3
Educate and Inform All Township Boards, Commissions, Committees, and Authorities on Economic Development Tools and Efforts

Strategies to Achieve Objective 4-3

a. Research, develop, and implement ongoing processes to keep the Township Board and all appointed committees involved with economic development fully informed on the various economic tools and funding resources available to Waterford Township.

b. Expand and implement staff training and development to gain knowledge and awareness of current economic development tools, funding sources, best practices, and innovative techniques and programs.

Objective 4-4
Improve the Physical Appearance and Functional Character of the Commercial Corridors

Strategies to Achieve Objective 4-4

a. Develop and implement ordinances, policies, and planning tools to assist with the aesthetic and functional improvement of the Township's commercial corridors.

b. Investigate and, if feasible, create a Downtown Development Authority to assist in the redevelopment and improvement of the commercial corridors.

c. Develop, implement, and promote traffic calming and access management regulations and policies as a means of enhancing the commercial corridors.

d. Pursue and maintain cooperative relationships with the public road agencies to investigate, plan, and construct aesthetic and functional improvements of the Township's commercial corridors.

e. Ensure that commercial corridor infrastructure is reconstructed to encourage both motorized and nonmotorized transportation.

f. Sponsor and develop partnerships with governmental agencies, business organizations, and business owners to improve the aesthetic and functional qualities of the Township gateways and commercial corridors.

g. Complete a corridor improvement and enhancement plan for each of the Township's three major commercial corridors: M-59, Dixie Highway, and Telegraph Road.

h. Incorporate priority corridor and gateway improvements into the Capital Improvements Plan.

GOAL FIVE
TO INCREASE AND IMPROVE RECREATIONAL OPPORTUNITIES FOR WATERFORD CITIZENS

Objective 5-1
Develop, Construct, and Maintain in One Central Location a Full-Scale Community Center to Serve All Age Groups

Strategies to Achieve Objective 5-1

- **a.** Propose and promote a phased plan of development and funding to create a dynamic recreation center that will be supported by the citizens and serve the community for the foreseeable future.
- **b.** Provide indoor swimming facilities to meet the community's recreation, fitness, therapeutic, and scholastic swim needs.
- **c.** Provide a playground area for younger children.
- **d.** Appoint a citizen task force to work with Township staff in researching and proposing all other recreational, fitness, and service facilities that would be supported by Township residents as part of a new community center.
- **e.** Research and analyze all potential funding sources and options.

Objective 5-2
Promote Recreational Utilization of the Clinton River

Strategies to Achieve Objective 5-2

- **a.** Educate the community about the presence, importance, and threats to the Clinton River.
- **b.** Sponsor and promote projects, programs, and annual events to clean up, restore, preserve, and protect the Township's river resources.
- **c.** Sponsor and promote Clinton River educational and recreational projects, and programs such as canoeing, kayaking, and fishing.
- **d.** Work with the Clinton River Watershed Council to sponsor an adopt-a-river program by businesses and service organizations for different segments of the river.
- **e.** Identify existing storm drain connections to the Clinton River.
- **f.** Partner with the local schools in developing curriculum centered on the importance and ecological fragility of the Clinton River.

Objective 5-3
Promote Increased Access and Use of Existing Parks

Strategies to Achieve Objective 5-3

- **a.** Provide and maintain effective nonmotorized access to all Township parks.
- **b.** Develop and implement a playground equipment maintenance and improvement schedule to ensure child safety and modernized facilities.
- **c.** Explore opportunities for creating dog parks, or using a portion of an existing park for the purpose of developing and maintaining pet run areas.
- **d.** Conduct periodic studies and analyses of existing parks' utilization to assess use patterns and evaluate implementation of other recreational uses.
- **e.** Create better access to, and promote utilization of, Elizabeth Lake Woods, including trails and interpretive observation areas.
- **f.** Develop and maintain directional signage to the parks and identification signage for natural features, river and stream crossings, and watershed boundaries.
- **g.** Ensure that the area currently occupied by the Drayton Plains Nature Center is linked to the Waterford Riverwalk system.
- **h.** Preserve and protect the area currently occupied by the Drayton Plains Nature Center as a nature center.
- **i.** Include passive recreation areas and activities in the Recreation Plan.
- **j.** Develop and disseminate marketing materials promoting Waterford Township Parks utilizing all available media.

Objective 5-4
Provide and Maintain Playground Areas in Neighborhoods

Strategies to Achieve Objective 5-4

- **a.** Investigate opportunities for establishing and maintaining small playground or picnic areas within, or adjacent to, neighborhoods.
- **b.** Provide assistance to neighborhood associations to organize as non-profit groups in order to organize, manage, fund, and control parks to serve their neighborhood.
- **c.** Revise and strengthen Zoning Ordinance requirements for the establishment and maintenance of neighborhood park areas within new developments.
- **d.** Investigate the development of a neighborhood enhancement grant program that utilizes state and federal funding sources to enable neighborhood associations to create neighborhood parks.

Objective 5-5
Expand and Promote Diverse Recreation Opportunities for Waterford Citizens

Strategies to Achieve Objective 5-5

- **a.** Expand and implement staff training and development to gain knowledge and awareness of innovative recreational facilities and programs.
- **b.** Research and analyze gaps in the provision of recreation services within the Township to assess the feasibility of establishing and funding new facilities and programs.
- **c.** Promote establishment of innovative and diverse recreational facilities and programs.

GOAL SIX
TO ENSURE AND ENFORCE LAND USE DEVELOPMENT PRACTICES THAT ARE SENSITIVE TO WATERFORD'S NATURAL ENVIRONMENT

Objective 6-1
Ensure Quality Development Practices by Establishing Regulations that Govern Land Use Based on Natural Capacity of the Land

Strategies to Achieve Objective 6-1

a. Revise the Zoning Ordinance to require the evaluation of water and sewer service availability to determine the acceptable level of development intensity.

b. Restrict development to low intensity land uses in locations where the natural resources are least capable of supporting development, where existing roads have limited capacity, and where existing low density land uses patterns currently exist.

c. Restrict development to medium intensity uses in locations where natural resource conditions are moderately capable of supporting development, adequate roads are accessible, and existing medium density land use patterns exist.

d. Allow high intensity uses in locations near major thoroughfares and state highways, where sanitary sewer and water service is available, where medium to high density land use patterns currently exist, and where the natural resources will be minimally effected by development.

e. Review and revise the Zoning Ordinance and Township policies to effectively implement Master Plan Goals and future land use designations.

f. Establish and maintain a database containing information on the available public infrastructure (water, sanitary sewer, storm sewer, etc,) capacities within the Township to assist Township staff in making decisions on proposed land uses.

Objective 6-2
Promote Open Space Developments

Strategies to Achieve Objective 6-2

a. Research and propose revisions to the Township ordinances and policies which provide tools for housing developments that preserve substantial areas of open space and reasonable and flexible requirements, such as measured adjustments in zoning bulk regulations.

b. Establish and enforce the preservation of uplands as a requirement in open space and cluster developments.

c. Encourage and promote private preservation of open space through conservation easements, dedications, and stewardship programs.

d. Encourage and preserve natural resource corridor links between natural areas, recreation areas, parklands, and schools.

e. Research, evaluate, implement, and actively enforce revisions to the Zoning Ordinance to require that within new housing developments, a sufficient amount of property be

dedicated for quality of life features such as parks, open space, natural areas, and native landscaping.

Objective 6-3
Ensure All Development Efforts Respect, Preserve, and Protect Waterford's Natural Characteristics and Constraints

Strategies to Achieve Objective 6-3

a. Continue and expand the enforcement of rational wetland protection to, preserve wetlands in their natural state as a high priority, protect water quality, stabilize stormwater runoff, recharge groundwater, and provide fish and wildlife habitat.

b. Establish ordinance requirements for practical woodlands conservation to protect water and soil quality, improve air quality, buffer noise, moderate climate hazards, preserve wildlife diversity and habitats, and enhance community aesthetics.

c. Promote, inform, and encourage citizens on the use of native plant material to minimize the hazardous effects of invasive species.

d. Encourage preservation of natural contours and minimize mass grading alterations.

e. Require the preservation and protection of groundwater recharge areas as open space or low density uses to retain as much permeable surface and water holding characteristics as possible.

f. Promote and enforce the protection of groundwater recharge areas from pollution through the regulation of land uses which may discharge wastes into the hydrological cycle.

g. Promote the preservation of natural vegetation and topographical features along stream corridors and waterways by restricting these areas to uses offering little danger of topographical disturbance, water quality degradation, stream channel alteration, runoff or sedimentation increase.

h. Utilize all communication methods to educate the community on the care and use of herbicide and fertilizer sprays to preserve and protect stream corridors, waterways, and the natural drainage and runoff pattern associated with them.

i. Develop and maintain natural area inventories that include assessments for quality, location, health, and species surveyed by such agencies as the Michigan Natural Features Inventory.

j. Regulate, preserve, and protect the natural areas essential to maintaining Waterford's unique heritage and character, which provide a diverse high-quality wildlife habitat.

k. Review and revise the Zoning Ordinance and policies to provide strict buffer and setback protection of wetlands, streams, rivers and drains.

l. Advocate the establishment of a prohibited planting materials list based upon invasiveness and ecological impacts.

m. Establish and maintain strict policy requirements for soil and sedimentation control during development.

n. Actively work with responsible agencies to maintain an accurate list of leaking underground storage sites.

o. Revise Township ordinances to ensure Wellhead Protection Plan implementation.

p. Develop and utilize a Township Open Space and Natural Area Management Plan to assist in evaluating future rezoning and site plan approvals as well as potential open space acquisition.

GOAL SEVEN
TO RETAIN, ENHANCE, AND PROMOTE WATERFORD'S UNIQUE CHARACTER, SENSE OF COMMUNITY, AND IDENTITY

Objective 7-1
Expand, Enhance, and Improve the Aesthetics and Historic Preservation of the Waterford Village Historic District

Strategies to Achieve Objective 7-1

a. Research, plan, and fund the installation of decorative lighting, signage, and barrier-free nonmotorized paths along District streets *(Please refer to Map 10 on Page 7-47 in Chapter 7 for the location of the District).*

b. Inventory and evaluate existing vacant land in the District and evaluate and recommend adaptive reuse of existing structures that will enhance the District as a community destination.

c. Research, evaluate, and improve the regulatory powers and effectiveness of the Township's Historic District Ordinance.

d. Explore the expansion of the original District boundaries by encouraging properties to join the Historic District.

e. Explore, develop, and utilize stable funding sources and financing tools for restoration, improvement, and small business development in the District.

f. Develop and implement ongoing communication with District property owners to inform them of District regulations and expectations.

g. Develop, promote, and implement a conceptual Historic District area plan to focus and guide redevelopment efforts.

Objective 7-2
Plan and Encourage Development of Neighborhood Nodes

Strategies to Achieve Objective 7-2

a. Revise the Zoning Ordinance to provide implementation of future land use designations and zoning tools to create and maintain viable neighborhood nodes.

b. Develop, promote, and implement a conceptual plan for each area identified in the Master Plan as a neighborhood node to focus and guide development and redevelopment efforts.

c. Develop, promote, and maintain the Township Civic Center area as a community gathering place.

Objective 7-3
Establish and Enforce a High Standard for the Physical Condition of the Township Housing Stock

Strategies to Achieve Objective 7-3

- **a.** Research, evaluate, and revise Township ordinances and policies to require annual inspections of rental housing, strengthen property maintenance code enforcement, and eliminate blighting effects and influences.
- **b.** Research, evaluate, and revise the Zoning Ordinance to include flexible planning and zoning tools, and requirements which encourage and promote quality redevelopment of the Township's existing housing stock.

Objective 7-4
Assist Service Organizations to Expand and Market Programs and Services

Strategies to Achieve Objective 7-4

- **a.** Develop and implement an information gathering and dissemination process using all media to inform new and current Waterford residents of area community services.
- **b.** Advocate the elimination of public service duplications of effort, promote consolidated and partnering public service efforts, and work to eliminate service gaps.
- **c.** Develop and maintain a current database of community service organizations and the services they offer within Waterford Township.
- **d.** Publicize and promote volunteer opportunities and efforts using all available media.

Objective 7-5
Strengthen Communication Partnerships between the Township and Governmental Agencies, the Waterford School District, Private Schools, and Service Organizations

Strategies to Achieve Objective 7-5

- **a.** Implement dedication of Township staff, website, and cable resources to the expansion of community communication efforts.
- **b.** Develop and maintain partnerships between the Township, School District, business community, and community agencies to promote the Waterford community and the quality of life for citizens and visitors, utilizing all available media.
- **c.** Develop and maintain partnerships between the Township, School District, business community, and community agencies to implement cooperative cultural planning efforts that will encourage and expand cultural programs and services in Waterford.
- **d.** Continue and expand proactive communication and information exchange between the Township and Waterford School District to facilitate and achieve common goals.
- **e.** Continue and expand proactive communication and information exchange between the Township and Oakland County International Airport to facilitate airport land use issues and noise study implementation.
- **f.** Research, develop, and implement Township/School District partnership program to educate students about importance of local government.

FISCAL TOOLS

Waterford Township can increase the effectiveness of its Master Plan implementation efforts by reasonable utilization of financing tools at the Township's disposal. The Township possesses current financing capacity through the annual budget process as well as through the annual federal Community Development Block Grant program. The Township can support the establishment of grant matching funds and search for opportunities to apply for federal, state, county, or foundation grants to achieve Master Plan goals and objectives.

The Township has also established an Economic Development Corporation and a Brownfield Redevelopment Authority to assist with economic development policy and to finance projects which meet the established criteria. The adoption of a rational tax abatement policy is recommended to assist in meeting Master Plan Goals. The establishment of a Waterford Downtown Development Authority should be researched and promoted. The Township could consider the establishment of special millages and selling municipal bonds to raise capital for the large implementation items.

The Township can also increase the fiscal effectiveness of the Master Plan implementation through the creation of a capital improvements planning process that is integrated into the annual budget process. A capital improvements planning process provides for the review of funding and timing of municipal capital needs such as utilities, parks, and Township facilities. An annual review would provide the opportunity to update the plan. It is recommended that such a process include a specific role for the Planning Commission to review annual capital budget requests and advise the Township Board on whether they achieve the Master Plan goals and objectives.

LEGISLATIVE POLICY-MAKING

The Township Board will play a critical role in establishing the Master Plan as the Township's primary planning policy document. It is recommended that the Township Board adopt and actively promote the Master Plan as the Township's planning policy document and require the Township administration to work with the Planning Commission to achieve the Master Plan Goals. The Township Board will approve and oversee the funding necessary to fully implement the Master Plan goals, objectives, and strategy items. The Township Board can also work proactively to support the Master Plan Goals by establishing a capital improvements planning and budgeting process, incorporating it into the annual budget process, and ensuring that all administrative departments are active participants in this capital improvements process.

The Township Board will be instrumental in reviewing and ensuring that adoption of general and Zoning Ordinance revisions will achieve the goals of the Master Plan. A reasonable strategy for the Board may be to require that a written statement explaining how each proposed new or revised ordinance will achieve the Master Plan Goals. The Zoning Ordinance, in particular, will be an important implementation responsibility of the Township Board. The last Zoning Ordinance was adopted 22 years ago, with the structure and a substantial amount of the content dating back 40 years to the first Township-wide Zoning Ordinance. The Board can take a vigorously proactive role by advocating an extensive rewrite of the Zoning Ordinance so that it is fully effective in implementing the Master Plan. For the Master Plan to be successfully implemented once a new Zoning Ordinance and its related Zoning Map are adopted, the Township Board and the Planning Commission must defend and protect the Ordinance from rezoning requests that are inconsistent with the new Zoning Ordinance and Map.

Finally, the Township Board possesses the ability to assist with the Master Plan implementation by adopting economic development tools at the Township's disposal. Waterford's Township Board has exhibited its desire to be proactive by adopting such tools as the Economic Development Corporation and the Brownfield Redevelopment Authority. The Board can build upon their past actions by advocating and adopting tools such as a Downtown Development Authority, if such proves feasible, and a tax abatement policy with appropriate restrictions.

ADMINISTRATION AND ENFORCEMENT

In addition to following all Master Plan implementation policies established by the Township Board, the Community Planning and Development Department (CPD) staff should facilitate Master Plan implementation by educating all Township personnel about the Master Plan as a Township-wide policy document that needs to be actively implemented and promoted. The CPD staff should also actively involve other departments in Master Plan implementation efforts, including program and project development. Township departments should also focus on reviewing and revising department procedures and actions to ensure Master Plan implementation. The review and development of proposed ordinances necessary to implement the Master Plan is another important task that the Township administrative departments need to pursue. Finally, each department should actively enforce the laws, policies, and procedures established to accomplish Master Plan goals and objectives.

CITIZEN EDUCATION AND PROMOTION

It is essential that ongoing education efforts be undertaken to ensure that citizens are aware of and will continue to champion Master Plan implementation, to educate citizens on the Master Plan and promote Master Plan goals and objectives. Revision of planning process application forms to include information on the adoption of the new Master Plan is recommended. An active planning education program should be promoted and established as part of the public school curriculum.

The Community Planning and Development Department should take an active role in utilizing every medium available, such as the Township website, cable, printed brochures, community calendars, and new resident packets.

EVALUATION

The Planning Commission's use of a thorough and ongoing evaluation process is an effective means of achieving its primary mission to monitor the implementation of the Master Plan. The evaluation process will be helpful in pinpointing necessary adjustments to the implementation process, as well as determining necessary Master Plan amendments. It is recommended that the Planning Commission adopt an evaluation process that includes an ongoing strategic planning process to review progress and set timelines for accomplishing the strategy items, requires frequent staff progress reports, and a complete review and analysis of the Master Plan every five years during its life cycle.

CHARTER TOWNSHIP OF WATERFORD OAKLAND COUNTY MICHIGAN

MASTER PLAN 2003 – 2023 APPENDICES A THROUGH F

Moving Forward Together

APPENDIX A: BACKGROUND STUDIES

An inventory and analysis of background information on Waterford Township was prepared to serve as the foundation for building the Master Plan goals, objectives, and future land use designations. The background studies are intended to provide a clear understanding of the historical and current demographics of Waterford. Basic comparative analyses between Waterford, surrounding communities, and Oakland County are also included to provide a better understanding of Waterford's status within the surrounding region. Projections of likely future trends and characteristics were developed to offer insight into Waterford's progress and development as a community during the next twenty years. The background studies are analyses of the following topics:

- Population
- Housing
- Income
- Economic Conditions
- Tax Base
- Employment
- Education
- Environmental Resources
- Historic District and Preservation
- Existing Land Use & Zoning

In addition, background information on community and recreational facilities were reviewed and analyzed in Appendix O and the Township's transportation issues are addressed in Appendices L, M, and N.

POPULATION

Historical Trend

The 2000 Census population of Waterford Township is 73,150. This represents a population gain of 6,458 people since 1990, or a growth rate of 9.68 percent. The Township's population constitutes nearly six percent of the county's population of 1,194,156. Table A-1 shows that Waterford experienced its highest growth prior to 1970 and mirrored the growth and development patterns of Oakland County.

In Table A-2, the significant growth in population occurring in communities surrounding the Township in the period from 1970 to 2000 is shown. During the 1980s, population growth in Waterford began to moderate as the amount of available land for development diminished and development and population growth began to occur at an increasing rate in the communities west and north of Waterford.

Table A-1
Population Trend Comparison
Waterford Township and Oakland County
1900 -2000

Year	Waterford Township	Percent Change Between Decades	Oakland County	Percent Change Between Decades
1900	1,079	n/a	44,792	n/a
1910	1,065	-1.3	49,576	10.7
1920	1,354	27.1	90,050	81.6
1930	7,942	486.6	211,251	134.6
1940	12,019	51.3	254,068	20.3
1950	24,275	102.0	396,001	55.9
1960	47,008	93.7	690,259	74.3
1970	59,123	25.8	907,871	31.5
1980	64,250	8.7	1,011,793	11.5
1990	66,692	3.8	1,083,592	7.1
2000	73,150	9.7	1,194,156	10.2

Source: U.S. Census Bureau, Waterford Community Planning and Development

Table A-2
Population Trend Comparison
Waterford Township and Surrounding Communities
1900-2000

Year	Waterford Township	West Bloomfield Township	Independence Township	Commerce Township	White Lake Township	City of Pontiac
1900	1,079	999	831	1,124	718	9,769
1910	1,065	1,113	799	986	642	14,532
1920	1,354	1,963	662	914	632	34,273
1930	7,942	3,522	1,164	1,789	1,114	64,928
1940	12,019	5,597	1,627	2,957	1,643	66,626
1950	24,275	8,720	3,448	7,421	4,182	73,681
1960	47,008	13,867	10,121	9,608	8,381	82,233
1970	59,123	28,563	16,327	14,556	14,311	85,279
1980	64,250	41,962	20,569	18,789	21,870	76,715
1990	66,692	54,516	23,717	22,228	22,608	71,166
2000	73,150	64,860	32,581	30,349	28,219	66,337

Source: U.S. Census Bureau

Sex and Age Distribution

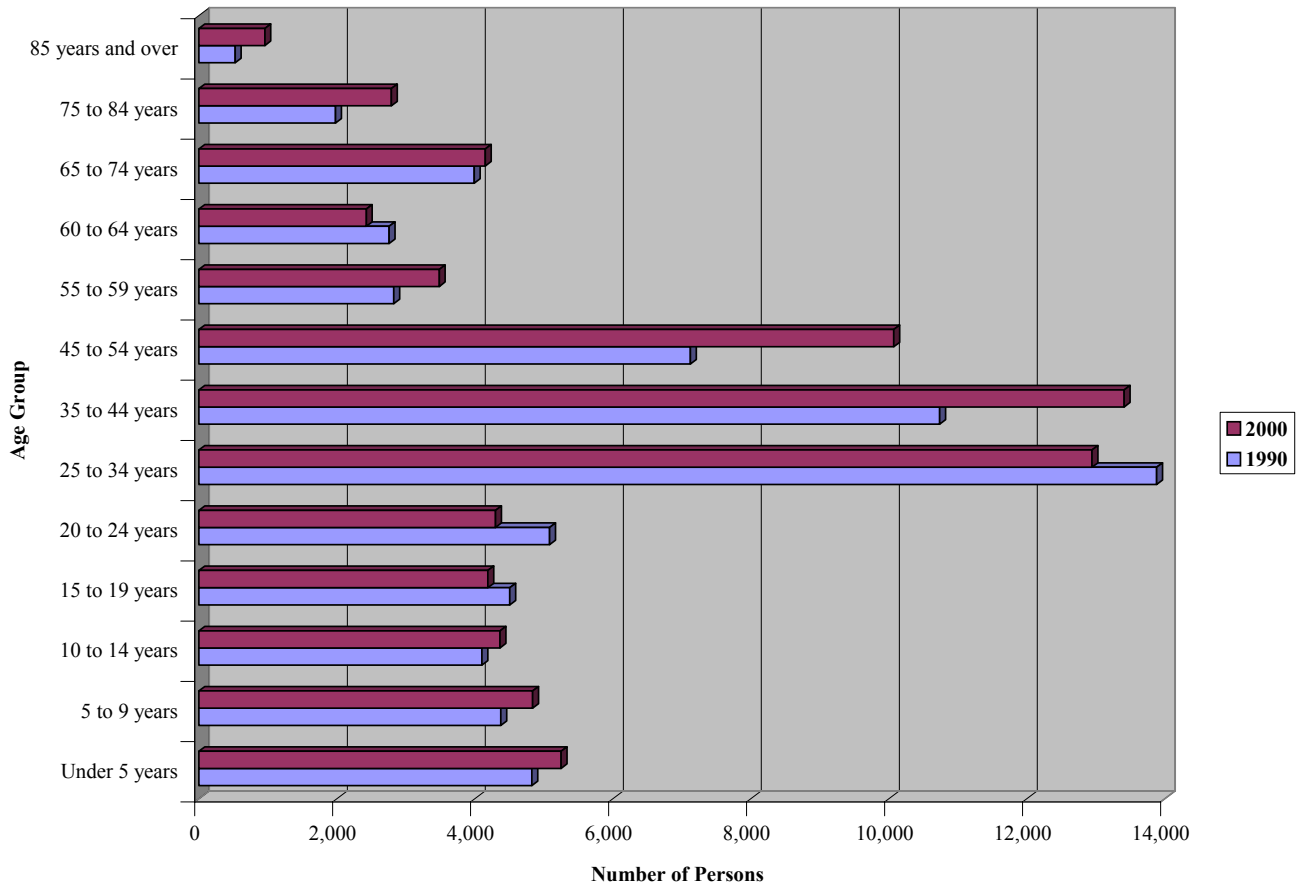
The distribution of age cohorts as a percentage of total population is important for long range planning in order to identify potential educational, housing, and social service needs, as well as to evaluate the availability of future labor supply. The age distribution for Waterford (as a percentage of total population) falls slightly above the county average for the age groups 0-4 and 18-34. It has a higher percentage of total population than the county average for the age groups 5–17, 35-64 and 65 and above, while the Township's median age of 35.5 years is slightly younger than that of the County's median age.

Table A-3 Age Group Distribution - Waterford Township - 1990 and 2000

Sex and Age	1990 Census		2000 Census		1990-2000
	Number	Percent	Number	Percent	Percent Change
Total Population	66 ,692	100.0	73,150	100.0	9.7
Male	32,665	49.0	36,502	49.9	11.7
Female	34,027	51.0	36,648	50.1	7.7
Under 5 years	4,823	7.2	5,249	7.2	8.8
5 to 9 years	4,376	6.6	4,836	6.6	10.5
10 to 14 years	4,100	6.1	4,363	6.0	6.4
15 to 19 years	4,504	6.8	4,186	5.7	-7.1
20 to 24 years	5,080	7.6	4,297	5.9	-15.4
25 to 34 years	13,879	20.8	12,942	17.7	-6.8
35 to 44 years	10,734	16.1	13,408	18.3	24.9
45 to 54 years	7,123	10.7	10,069	13.8	41.4
55 to 59 years	2,824	4.2	3,483	4.8	23.3
60 to 64 years	2,756	4.1	2,424	3.3	-12.0
65 to 74 years	3,989	6.0	4,149	5.7	4.0
75 to 84 years	1,980	3.0	2,790	3.8	40.9
85 years and over	524	0.8	954	1.3	82.1
Median Age	(x)	(n/a)	35.5	(n/a)	(n/a)

Source: U.S. Census Bureau
Note: (x) denotes 1990 data not available

Figure A-1
Age Group Numerical Distribution Comparison
Waterford Township
1990 and 2000

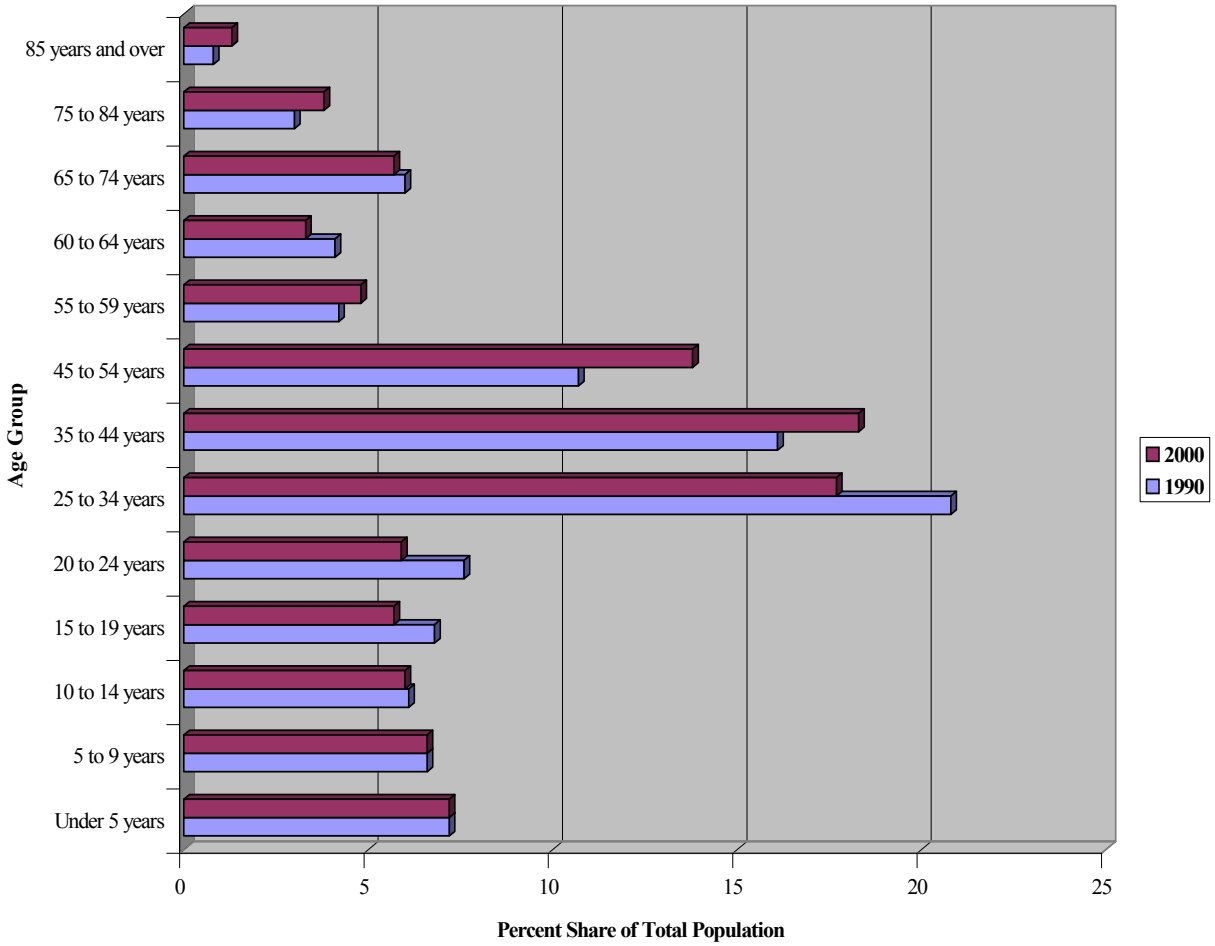


Source: U.S. Census Bureau

Waterford Township has 69.5 percent of its population in the age brackets containing persons 15 to 64 years of age. Since this is considered the labor force segment of the population, over two thirds of Waterford's population is part of the labor force segment. However, the population in the combined 15-34 years age bracket decreased by 29.3 percent between 1990 and 2000, while the 35-64 age bracket grew at a 77.6 percent rate. This trend is not unique to Waterford. As is shown in Figure A-3, Waterford's demographic patterns for the percent share of total population for each age bracket in 1990 and 2000 are almost identical to Oakland County's patterns during the same time periods. The growth rate in the 35-64 age brackets is also reflected in the median age, as shown in Tables A-3 and A-4.

These demographic patterns are probably due to the remainder of the post-World War II baby boomer generation shifting into the older age bracket, continuing a trend toward a work force growing older during the past ten years. The baby boomer generation will continue to impact the demographic patterns in the next twenty years as this group enters the traditional retirement years. Combined with the trend toward longer life spans, the age brackets for 65 years and older are expected to become a significant proportion of the total population if current demographic patterns continue unchanged. This pattern may be affected by such changes as an increased birth rate or substantial influx of younger individuals moving into the community.

Figure A-2
Age Group Percentage Distribution Comparison
Waterford Township
1990 and 2000



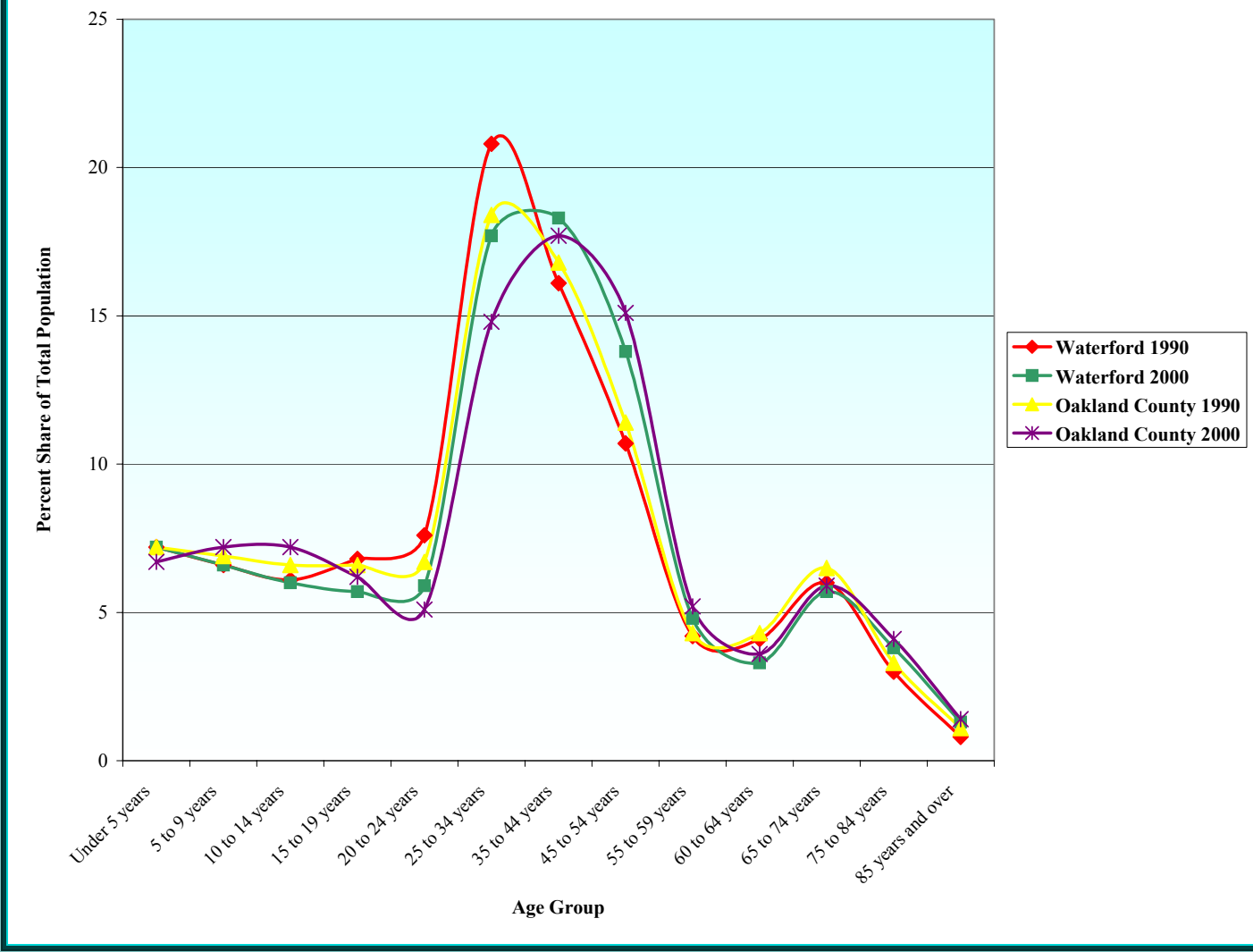
Source: U.S. Census Bureau

Table A-4
Age Group Distribution
Oakland County
1990 and 2000

Sex and Age	1990 Census		2000 Census		1990-2000
	Number	Percent	Number	Percent	Percent Change
Total Population	1,083,592	100.0	1,194,156	100.0	10.2
Male	526,927	48.6	584,660	49.0	11.0
Female	556,665	51.4	609,496	51.0	9.5
Under 5 years	78,224	7.2	80,367	6.7	2.7
5 to 9 years	75,088	6.9	86,326	7.2	15.0
10 to 14 years	71,220	6.6	85,498	7.2	20.0
15 to 19 years	71,477	6.6	74,272	6.2	3.9
20 to 24 years	72,122	6.7	60,591	5.1	-16.0
25 to 34 years	198,972	18.4	176,187	14.8	-11.5
35 to 44 years	182,240	16.8	211,055	17.7	15.8
45 to 54 years	123,344	11.4	179,816	15.1	45.8
55 to 59 years	46,597	4.3	62,410	5.2	33.9
60 to 64 years	46,420	4.3	42,675	3.6	-8.1
65 to 74 years	70,237	6.5	70,271	5.9	0.0
75 to 84 years	36,131	3.3	48,479	4.1	34.2
85 years and over	11,520	1.1	16,209	1.4	40.7
Median Age	n/a	(x)	36.7	(x)	n/a

Source: U.S. Census Bureau
Note: (x) denotes 1990 data not available

Figure A-3
Age Group Percentage Distribution Comparison
Waterford Township and Oakland County
1990 and 2000



Source: U.S. Census Bureau

Table A-5
Median Age Comparison
Waterford Township and Surrounding Communities
2000

Community	Median Age in 2000
Waterford Township	35.5
West Bloomfield Township	40.2
Independence Township	36.4
Commerce Township	36.0
White Lake Township	36.4
City of Pontiac	30.0
Oakland County	36.7

Source: U.S. Census Bureau

Racial Composition and Trends

The United States Census Bureau changed the classifications for race between the 1990 and 2000 Census, so direct comparison between 1990 and 2000 figures is generally not feasible, especially in communities where there is a high percentage of racial diversity and blending within the population. While Waterford has experienced some growth in its minority population, it is still a community with a relatively racially homogeneous population. Therefore, in Waterford's case, the racial classification of *White* used in the 1990 Census is reasonably comparable to the *White Alone* classification used in the 2000 Census. While the total number of people in this racial category rose from 64,647 to 66,062 between 1990 and 2000, this category's share of the total population has decreased by 6.6 percent since 1990. The corresponding population gain in the other racial categories is spread evenly, with the highest increases in the *Black or African American* category at 1.8 percent and *Mexican* category at 1.1 percent.

Table A-6
Racial Group Distribution
Waterford Township
1990 and 2000

Race [1]	1990 Census		2000 Census		1990-2000
	Number	Percent	Number	Percent	Percent Change
Total Population	66,692	100.0	73,150	100.0	9.7
One race	n/a	n/a	71,914	98.3	n/a
White	64,647	96.9	67,777	92.7	n/a
Black or African	701	1.1	2,114	2.9	n/a
American Indian and	391	0.6	259	0.4	n/a
Asian	484	0.7	926	1.3	n/a
Hispanic or Latino	1,538	2.3	2,863	3.9	86.2
Mexican	1,175	1.8	2,089	2.9	77.8
Puerto Rican	136	0.2	272	0.4	100.0
Cuban	13	0.0	20	0.0	53.8
Other Hispanic or	214	0.3	482	0.7	125.2
Not Hispanic or Latino	65,154	97.7	70,287	96.1	7.9
White alone	n/a	n/a	66,062	90.3	n/a

Source: U.S. Census Bureau
[1] *Note: 2000 Census race data is not directly comparable to 1990 Census race data due to the first-time allowance for selecting more than one race in the 2000 Census.*

Household Characteristics

Although Waterford's household population continued to grow during the past ten years, the Township experienced a decline in the number of persons per household from 2.59 in 1990 to 2.42 in 2000, as shown in Table A-7. This decline in household size is not unique to Waterford. In fact, it is comparable to the same trend occurring in Oakland County and the nation. Oakland County experienced a decline in the number of persons per household from 2.61 in 1990 to 2.51 in 2000 and the nation experienced a decline from 2.63 in 1990 to 2.59 in 2000. Therefore, the national trend of people having smaller-size families has affected Waterford; it is not a result of any particular factors limited to Waterford.

Table A-8 shows a breakdown of household composition in 1990 and 2000. The non-family households category experienced an increase of 37.5 percent, compared with an increase of 6.2 percent for family households. While the family household category is still numerically larger than non-family households, the change in the percent of each category's share of the total indicates that the growth in non-family households, with a 5.6 increase in the percent share, is occurring at a faster rate than the growth in family households, with a 5.6 decrease in the percent share.

Table A-7
Population and Household Totals
Waterford Township and Oakland County
1990 and 2000

Component	Waterford Township		Oakland County	
	1990	2000	1990	2000
Household Population	66,083	71,231	1,072,264	1,180,408
Group Quarters Population	609	1,919	11,328	13,748
Total Population	66,692	73,150	1,083,592	1,194,156
Households	25,488	29,389	410,520	471,133
Housing Units	26,509	30,404	432,677	492,006
Household Size	2.59	2.42	2.61	2.51

Source: U.S. Census Bureau

Table A-8
Household Type Distribution
Waterford Township
1990 and 2000

Households by Type	2000 Census		1990 Census		1990-2000 Percent Change	1990-2000 Change in Percent of Total Share
	Number	Percent	Number	Percent		
Total Households	29,387	100.00	25,476	100.00	15.4	n/a
Family Households *(2 or more related)*	19,127	65.1	18,013	70.7	6.2	-5.6
With own children under 18	8,935	30.4	8,793	34.5	1.6	-4.1
Non-family Households *(2 or more unrelated)*	10,260	34.9	7,463	29.3	37.5	5.6
One person household	8,188	27.9	5,749	22.6	42.4	5.3
Householder 65 years and older	2,374	8.1	1,821	7.1	30.4	1.0

Source: U.S. Census Bureau

As shown in Table A-9, while Waterford had a notable increase in the number of households in the decade between 1990 and 2000, the percentage change was the second lowest among those neighboring communities measured. The only community with a lower change was Pontiac, which actually realized a percentage decrease in households. Waterford's relatively lower percent increase is more than likely attributable to the fact that Waterford possesses less land available for additional residential development. It is anticipated that Waterford's rate of increase in its number of households will continue to decline during the next 20 years as the land available for additional residential development continues to decrease.

Table A-9
Number of Households
Waterford Township and Surrounding Communities
1990 and 2000

Community	1990 Households	2000 Households	1990-2000 Percent Change
Waterford	25,476	29,387	15.35
Pontiac	24,777	24,234	-2.19
White Lake	7,776	10,092	29.78
West Bloomfield	19,221	23,414	21.81
Commerce	7,700	10,708	39.06
Independence	7,977	11,765	47.48

Source: U.S. Census Bureau

Population Projections

Population projections, like weather forecasts, are often erroneous in hindsight due to the dependence upon the numerous assumptions that must be entered into the calculation. One wrong assumption can dramatically affect a projection. A projection based in part on an assumption that double-digit residential development would prove to be wrong if an unanticipated surge in interest rates makes the cost of development too high. Even with this dependence on assumptions, projecting future population is essential to analyzing future land use and public facility, recreation, and housing needs.

There is no one projection analysis method that can accurately integrate all the factors that contribute to a particular rate of growth. Perhaps the most effective means of forecasting is to prepare population projections with a number of methods, then calculate the average projection from the outcomes of the methods used.

Projection Methods

SEMCOG Population Projection

One set of population projections has already been prepared by the Southeast Michigan Council of Governments (SEMCOG) for its 2030 Regional Development Forecast. While Waterford does not endorse these projections because SEMCOG's projections do not accurately reflect past population growth trends and the current pattern and rate of development, the SEMCOG figures are still useful as a worse case projection that can be compared and averaged with more optimistic and moderate projections.

Linear Curve Population Projection

The linear curve uses the past population growth and assumes the trend will continue into the future at previous growth rates. It is rarely appropriate to use the linear method alone to fully represent demographic trends. This is especially true in Waterford's case, where the shrinking amount of developable land will likely limit population from climbing as quickly as it has in the past, barring an increase in such factors as household size. The linear curve analysis is most effective as an optimistic projection that can be compared and averaged with more pessimistic and moderate projections.

Modified Exponential Population Projection

The modified exponential method generally assumes that growth will eventually approach an upper limit based on the eventual physical limitations of developable land and public facility

and infrastructure capacity. The upper limit for future growth is estimated by a buildout analysis on the remaining vacant developable land in the Township. For the purposes of this analysis, a buildout population of 85,000 people is utilized.

Building Permit Analysis Population Projection

This method examines recent building permit trends for residential construction and then projects that trend to estimate future number of households and population. This method assumes that housing construction rates will remain constant.

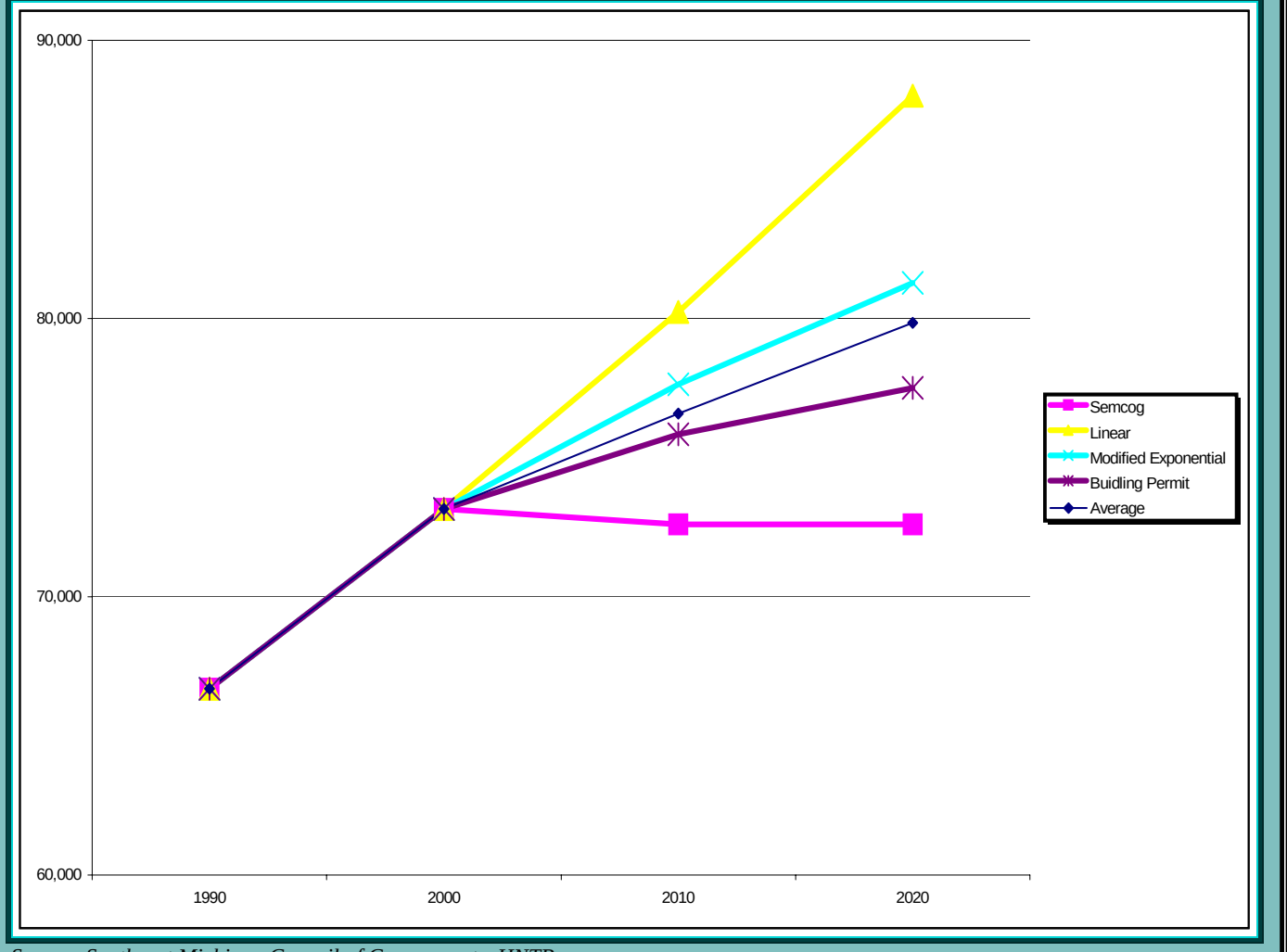
The results of the population projection analyses using the four methods described above are shown in Table A-10. The results are also graphically depicted in Figure A-4. The population projection methods produce a range of results from a nearly one percent gain to an over 20 percent increase over the twenty-year period. The average of the four projections is a 9.16 percent gain in population during the next 20 years.

Table A-10
Population Projection Method Outcomes
Waterford Township
2000-2020

Year	SEMCOG Method	Percent Change 2000-2020	Linear Method	Percent Change 2000-2020	Modified Exponential Method	Percent Change 2000-2020	Building Permit Method	Percent Change 2000-2020	Average Projection Method	Percent Change 2000-2020
2000	73,150		73,150		73,150		73,150		73,150	
2010	72,595	0.75	80,233	20.30	77,636	11.00	75,841	5.96	76,576	9.16
2020	72,602		88,003		81,280		77,507		79,848	

Source: Southeast Michigan Council of Governments, HNTB

Figure A-4
Population Projections
Waterford Township
2000-2020



Source: Southeast Michigan Council of Governments, HNTB

HOUSING

As shown in Table A-11, nearly 74 percent of current residents own their own home, a nearly 20 percent increase during the last decade, while the percent share of renter occupied housing decreased from 25.8 percent of the total in 1990 to 22.9 percent in 2000. Nearly 78 percent of Waterford's housing is single family housing, as shown in Table A-12. Additionally, the total demand for housing in the Township is strong, with only 3.3 percent of the units in 2000 identified as vacant, down from a 3.9 percent vacancy rate in 1990.

Table A-11
Housing Occupancy Status
Waterford Township
1990 and 2000

Housing Occupancy Status	1990 Census		2000 Census		1990-2000
	Number	Percent	Number	Percent	Percent
Total Households	26,509	100.0	30,404	100.0	14.69
Owner Occupied Units	18,630	70.3	22,428	73.8	20.39
Median Housing Value *(in 2000 dollar rate)*	$100,343	n/a	$144,400	n/a	43.91
Renter Occupied Units	6,846	25.8	6,959	22.9	1.65
Median Contract Rent *(in 2000 dollar rate)*	$682	n/a	$625	n/a	-8.36
Vacant Units	1,033	3.9	1,017	3.3	-1.55

Source: U.S. Census Bureau

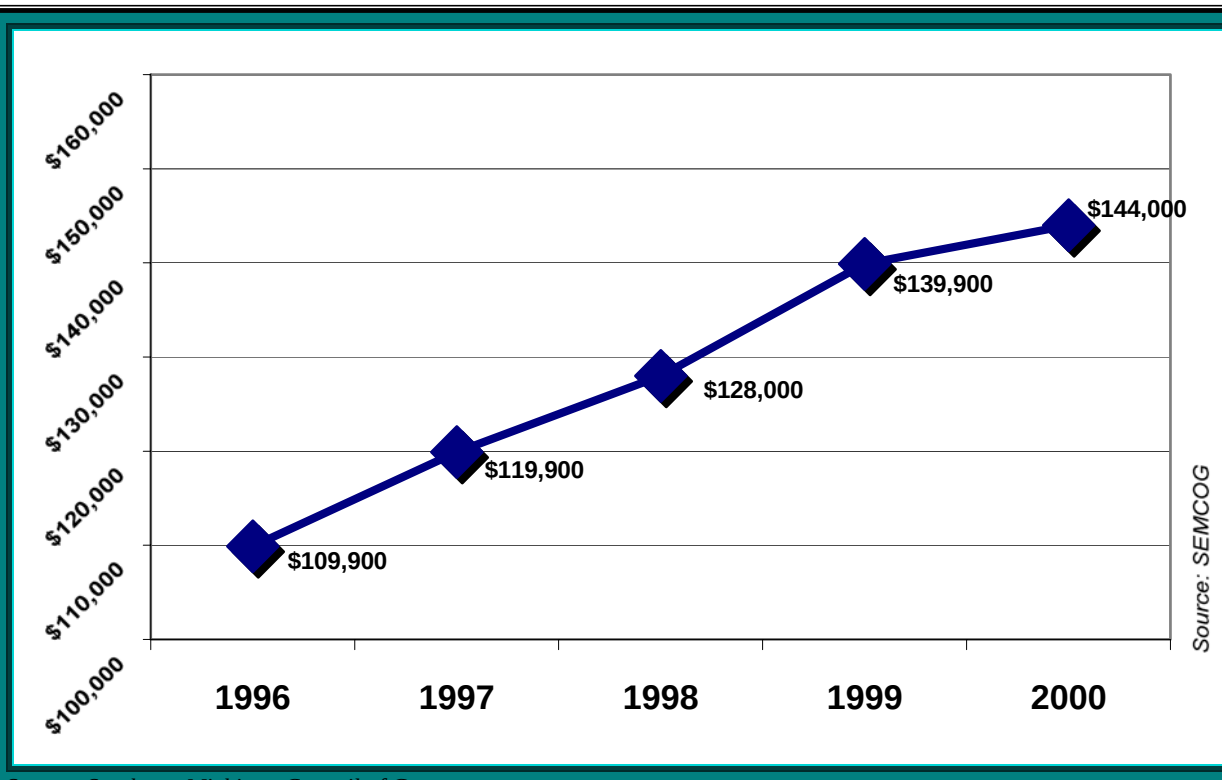
Table A-12
Number of Housing Units by Structure Type
Waterford Township
1990 and 2000

Structure Type	1990 Census		2000 Census		1990-2000 Percent Change
	Number	Percent	Number	Percent	
Total Households	26,509	100.0	30,404	100.0	14.7
One-Family Detached	19,461	73.4	22,469	73.9	15.5
One-Family Attached	802	3.0	1,206	4.0	50.4
Two-Family / Duplex	197	0.7	222	0.7	12.7
Multi-Unit Apartments	5,709	21.5	6,289	20.7	10.2
Mobile Homes	189	0.7	191	0.6	1.1
Other Units	151	0.6	6	0.0	-96.0

Source: U.S. Census Bureau

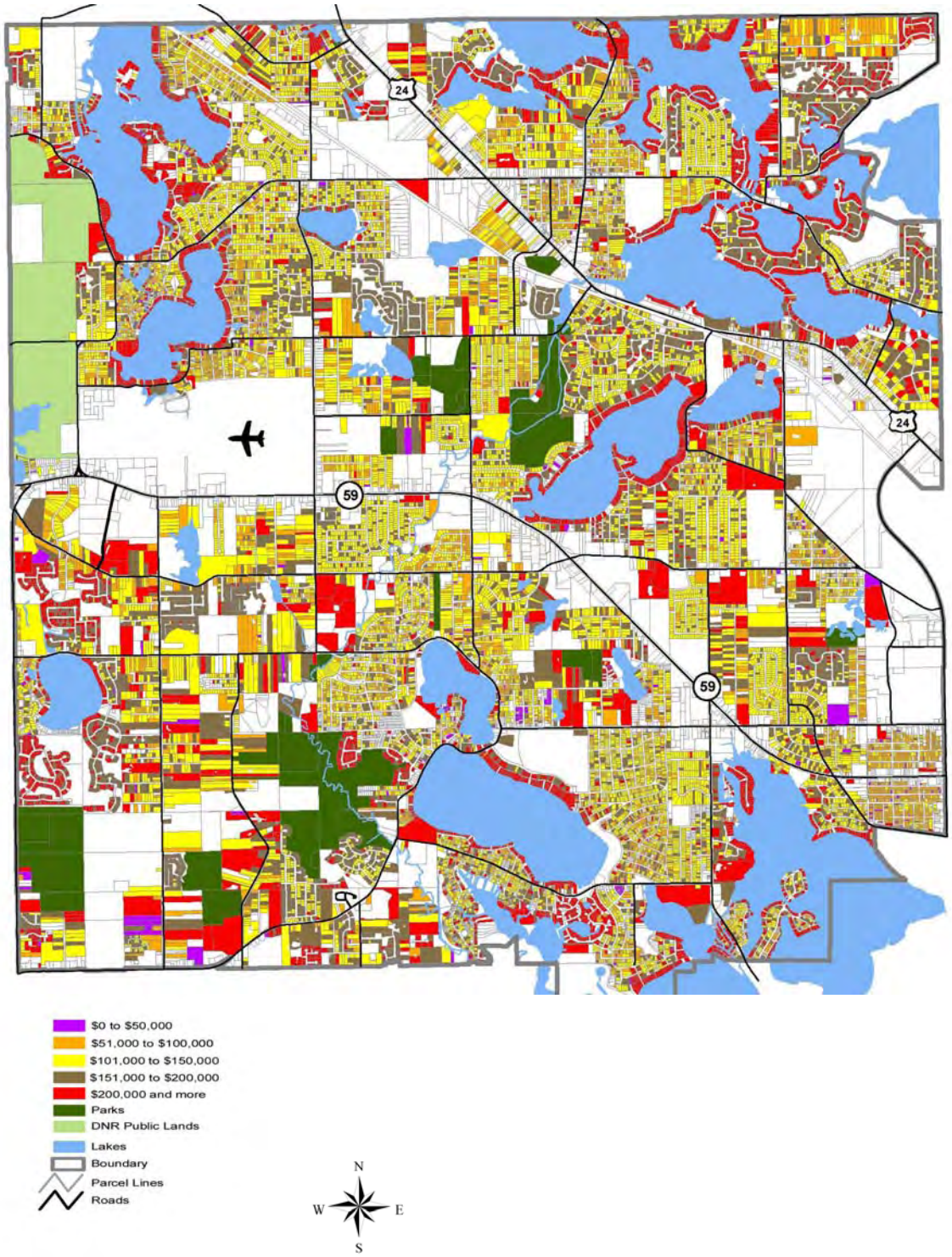
The growth in Waterford's average housing values between 1996 and 2000, shown in Figure A-5, also reflects the demand for Waterford's housing stock. During this period, average housing prices rose by $34,100, or 31.03 percent. Map A-1 provides a graphical representation of the distribution of residential market value classifications throughout the Township.

Figure A-5
Average Housing Value
Waterford Township
1996-2000



Source: Southeast Michigan Council of Governments

Map A-1
Residential Parcel Market Value Distribution
Waterford Township
2001



Source: Waterford Township GIS

The strength of the Waterford housing market is reflected in the net increase of housing units each year during the past twelve years, as shown in Table A-13. While there was an average of 38 housing units per year demolished between 1990 and 2001, an average 451 housing units per year were built during the same time period. The construction of the net 4,970 housing units during this time period increased Waterford's housing stock by 25 percent. This time period also contributed the second largest number of single family houses within a decade in Waterford's history, as shown in Table A-14. Only the decade of the 1950s produced more houses in Waterford.

Table A-13
Residential Building Permits
Waterford Township
1990-2001

Year	New Units Permitted			Units Demolished			Totals		
	Single Family	Two Family	Multi Family	Single Family	Two Family	Multi Family	New Units	Demo Units	Net
1990	178	0	134	30	0	0	312	30	282
1991	206	8	20	20	0	0	234	20	214
1992	219	2	56	43	0	0	277	43	234
1993	310	8	79	29	0	0	397	29	368
1994	401	4	78	48	0	0	483	48	435
1995	361	12	26	47	0	0	399	47	352
1996	489	4	80	35	0	0	573	35	538
1997	443	0	245	26	0	0	688	26	662
1998	528	2	187	55	0	0	717	55	662
1999	457	2	112	33	0	5	571	38	533
2000	189	14	57	42	0	0	260	42	218
2001	154	12	340	34	0	0	506	34	472
Total	**3,935**	**68**	**1,414**	**442**	**0**	**5**	**5,417**	**447**	**4,970**

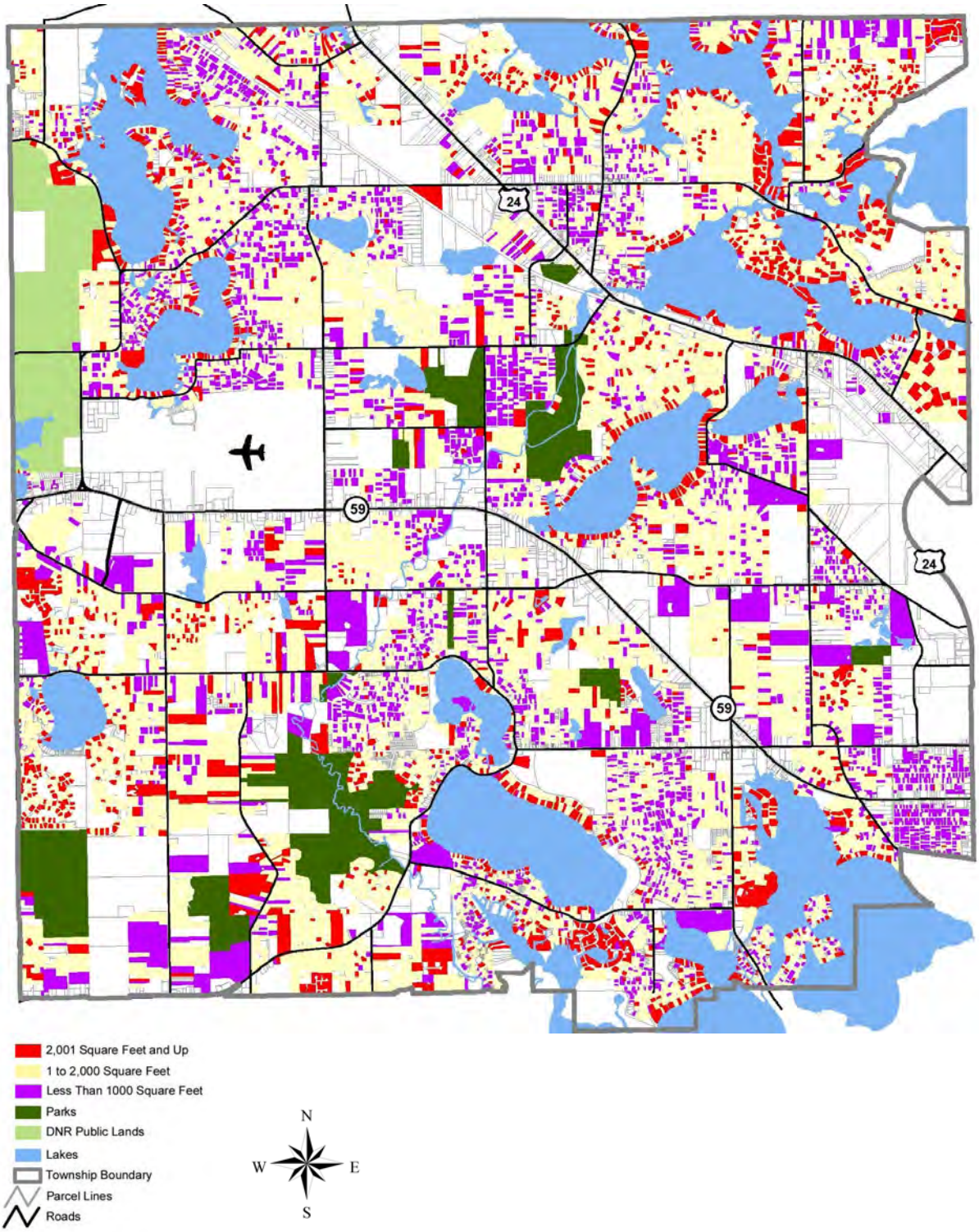
Table A-14
Residential Construction Detail
Waterford Township
1900-2000

Decade	Number Built	Number of Bedrooms	Number of Bathrooms	Unit Size *(sq. ft.)*	Lot Size *(acres)*
1900-1909	118	3.7	1.7	1,900	0.97
1910-19	111	3.3	1.6	1,666	0.46
1920-29	1,897	2.7	1.3	1,218	0.34
1930-39	921	2.7	1.3	1,275	0.46
1940-49	2,713	2.7	1.3	1,250	0.51
1950-59	6,204	2.9	1.3	1,245	0.39
1960-69	3,000	3.1	1.6	1,477	0.43
1970-79	2,395	3.1	1.6	1,491	0.39
1980-89	1,822	3.0	1.8	1,595	0.51
1990-99	3,243	3.1	2.3	1,821	0.34
2000	340	3.4	2.6	2,166	0.37

Source: Oakland County Planning and Economic Development Services

Based on the information found in Table A-14, the average Waterford home is approximately 1,554 square feet in size on nearly a half acre parcel, with 3 bedrooms and 1 ½ bathrooms. Map A-2 provides a graphical representation of the distribution of housing size classifications throughout the Township.

Map A-2
Residential Structure Size Distribution
Waterford Township
2001



Source: Waterford Township GIS

Population and Housing Conclusions

Waterford Township has continued to experience growth within the past decade both in the relation to population and housing, each of which are projected to continue, but at a lower rate, during the next twenty years. The following conclusions can be derived from the analyses presented in this section:

- The Township is the fourth most populous community in Oakland County with a population of 73,150, a nearly 10 percent increase from 1990.
- Between 1990 and 2000 the number of households grew 15 percent, while the County at nearly the same rate.
- The average household size decreased from 2.59 in 1990 to 2.42 persons per occupied housing unit in 2000, while the County dropped from 2.61 to 2.51 during the same time period.
- • The median age of Waterford Township residents is 35.5 years, while the County's median age is 36.7 years.
- Approximately 10.8 percent of the Township's residents are over 65 years old, which is comparable to the County's 11.4 percent.
- The Township's population made a small gain toward racial diversification, with the minority population growing from 3.1 percent of the total population in 1990 to 7.3 percent of the total in 2000.
- Waterford Township has a high percent of owner occupied housing: 73.8 percent in 2000.
- 34.9 percent of all households in the Township are non-family, up from 29.3 percent in 1990.
- By 2020, the population is projected to be 79,848, a nine percent increase from 2000.

INCOME

There was a significant shift in Waterford's income distribution during the 1990s as the number of households with $49,999 or less annual income decreased by over 22 percent, while the number of households with $50,000 or more annual income increased by 88 percent, as shown in Table A-15.

Table A-15
Income Group Distribution
Waterford Township
1990-2000

Household Income	1990 Census		2000 Census		1990-2000 Percent Change
	Number	Percent	Number	Percent	
Total Households	25,509	100.0	29,389	100.0	15.21
Less than $10,000	1,901	7.5	1,198	4.1	-36.98
$10,000 to $14,999	1,349	5.3	991	3.4	-26.54
$15,000 to $24,999	3,669	14.4	2,873	9.8	-21.70
$25,000 to $34,999	4,005	15.7	3,379	11.5	-15.63
$35,000 to $49,999	5,985	23.5	4,700	16.0	-21.47
$50,000 to $74,999	5,938	23.3	7,226	24.6	21.69
$75,000 to $99,999	1,777	7.0	4,545	15.5	155.77
$100,000 to $149,999	737	2.9	3,292	11.2	346.68
$150,000 or more	222	0.9	1,253	4.3	464.41
Median Household Income *(in 1999 dollar rate)*	$52,885		$55,008		4.01
Persons in Poverty	3,522	13.8	3,658	12.4	3.86

Source: U.S. Census Bureau
Note: Total households may not equal the sum of households in the income distribution due to revisions to total households by the U.S. Census Bureau.

ECONOMIC CONDITIONS

Waterford is the geographic center of Oakland County, located approximately an hour from downtown Detroit, ten minutes from Pontiac, and 30 minutes from Flint. Three regional highways, M-59, Dixie Highway, and Telegraph Road, provide ready accessibility to the major population and employment centers of southeastern Michigan. The Oakland County International Airport provides easy aviation access to major businesses with national and international operations, particularly those located in the Automation Alley corridor. Oakland County, as a whole, has experienced strong economic growth, job creation, and an overall healthy economy, and this trend is expected to continue.

Waterford's developed commercial land use areas have consistently remained around five to six percent of the total existing land use during the past 12 years. Consistent with the goals of the previous Master Plan, the Township's commercial land uses are concentrated along M-59, Telegraph Road, and Dixie Highway. These uses range from small, single-use storefront areas to contemporary shopping centers. The retail, office, and service uses located along Waterford's commercial corridors have served both comparison and convenience shopping needs for residents of Waterford and surrounding communities. Other commercial land uses can be found throughout the Township, particularly at main intersections. These commercial areas generally serve the surrounding neighborhoods and Township residents, while the shopping area located at Telegraph Road and Elizabeth Lake Road has a regional trade area serving a population base beyond the Township boundaries. Due to the anticipated slowing of population growth in Waterford, the achievement of virtual development buildout, and changes in the retail sector of the economy, no major commercial expansion in Waterford is anticipated during the next twenty years. Instead, an emphasis on redevelopment and changing patterns of commercial uses is anticipated during this time period.

The following overview provides a brief qualitative analysis of the Township's market area. This analysis has been conducted to provide assistance in guiding the development of the Master Plan's future land use designations. It is not intended to provide the level of statistical detail on the market area and its economic components that would be the result of an in-depth quantitative analysis. It is recommended that the Township conduct a detailed quantitative market area analysis in the near future to assist the planning staff with their efforts to accomplish the economic development goals of this Master Plan.

Market Area Overview

Waterford possesses two major focal areas that serve as regional destinations. One area is the Oakland County International Airport (OCIA). The OCIA provides ready access to general aviation service for the businesses and corporations located throughout Oakland County, and particularly along the Automation Alley corridor (Automation Alley is a cluster of technology-driven companies located in Oakland County). Currently, little to none of the properties surrounding the OCIA on the main thoroughfares have been utilized to take advantage of the airport's proximity and its use by the corporations located in Automation Alley to provide related commercial and office uses.

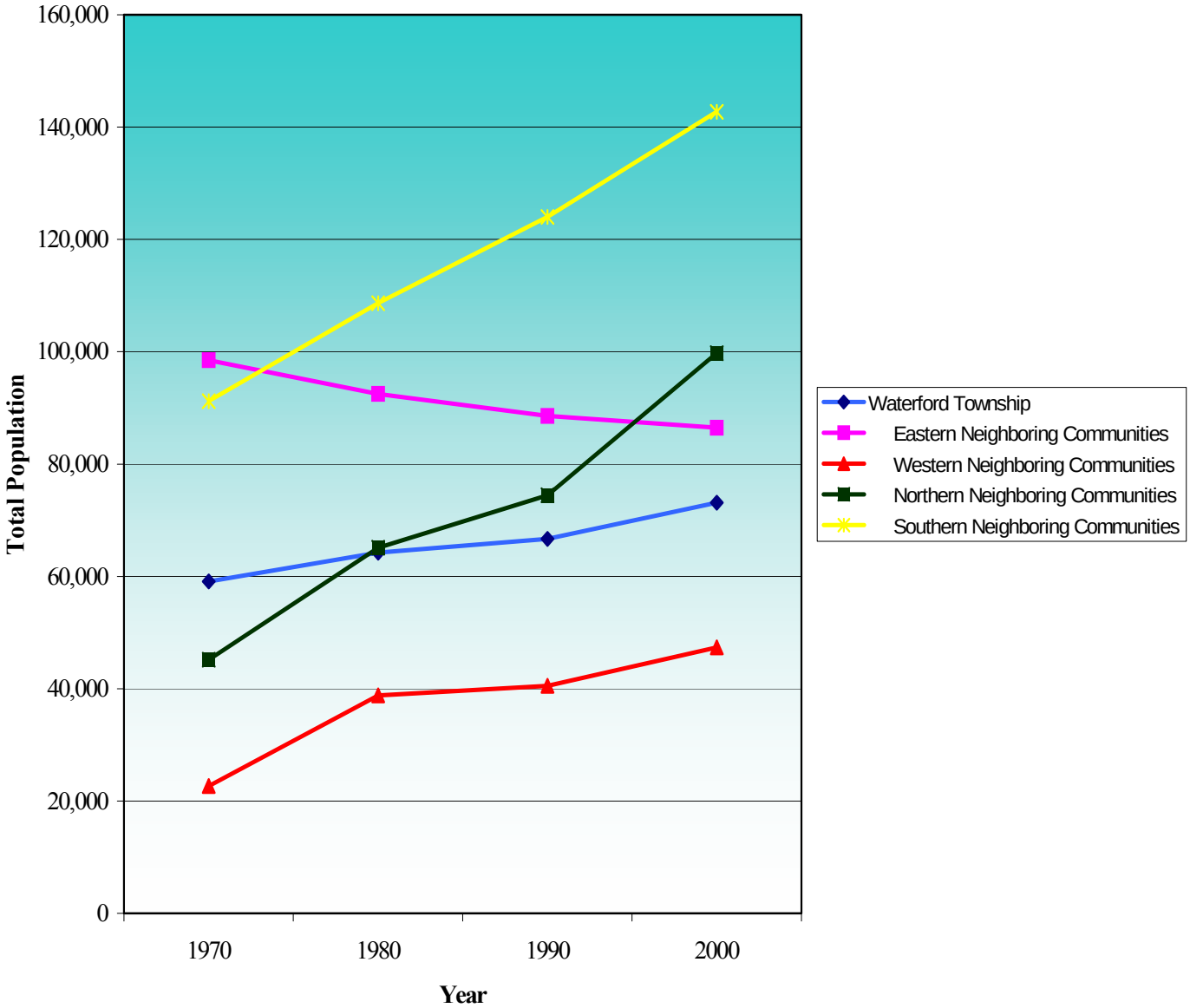
The other regional destination area is located at Telegraph Road and Elizabeth Lake Road. This area has traditionally been a regional shopping mall known as the Pontiac Mall and subsequently as the Summit Place Mall. Factors such as the construction of the Great Lakes Crossing Mall in nearby Auburn Hills and the growth of internet retail purchasing has weakened the vitality of the regional retail component of the Telegraph Road/Elizabeth Lake Road area, creating a surplus of commercial retail space.

Waterford Township's current primary market-drawing capability is for comparison oriented retail establishments as well as convenience shopping. The primary comparison market trading area is the geographic area in which 60 percent to 80 percent of comparison store clients reside. This geographic area can be qualitatively delineated on the basis of population dispersion, competitive market influences, traffic flow patterns and the location of natural barriers.

Population Distribution

The geographic distribution of population, or relative population density, becomes an important consideration in respect to the far-reaching aspects of Waterford Township's primary comparison trading area. In analyzing the potential pool of customers for the Township's primary trading area, the boundaries of other major trading areas in Oakland County were taken into consideration as well as highway access. Seventeen neighboring communities were determined to be part of the Waterford trading area. The neighboring communities were grouped into four geographic categories, east, west, north, and south. The eastern neighboring communities are comprised of the Cities of Lake Angelus, Pontiac, and Auburn Hills. The western neighboring communities are comprised of White Lake Township and Highland Township. Orion Township, the Village of Lake Orion, Independence Township, the City of the Village of Clarkston, Springfield Township, Brandon Township, and Rose Township together comprise the northern neighboring communities. Finally, the southern neighboring communities are comprised of Commerce Township, West Bloomfield Township, the City of Sylvan Lake, the City of Keego Harbor, and Bloomfield Township. There has been a substantial change in the population distribution in the Waterford trading area during the past thirty years, as is shown in Figure A-6. Thirty years ago, the greatest concentration of potential customers outside Waterford was in the eastern communities with over 66 percent more population than in Waterford alone, the southern communities with over 54 percent, and the total potential customers in the western and northern communities combined with only 15 percent more. In 2000, the southern neighboring communities increased at a high rate, now containing over 95 percent more population than in Waterford alone. The northern communities grew substantially, now containing 36 percent more population than in Waterford alone, while the western communities contain 35 percent less total population than Waterford. While the eastern communities still possess 18 percent more population than Waterford, this is a substantial drop from the population total thirty years ago. Therefore, the total number of potential customers in Waterford's primary comparison trading area increased by 42 percent over the total number of potential customers thirty years ago. The distribution of these potential customers has also shifted, from a primarily eastern-southern alignment to one that is primarily northern-southern with continuing growth in the western neighboring communities.

Figure A-6
Waterford Market Area Population Distribution
1970-2000

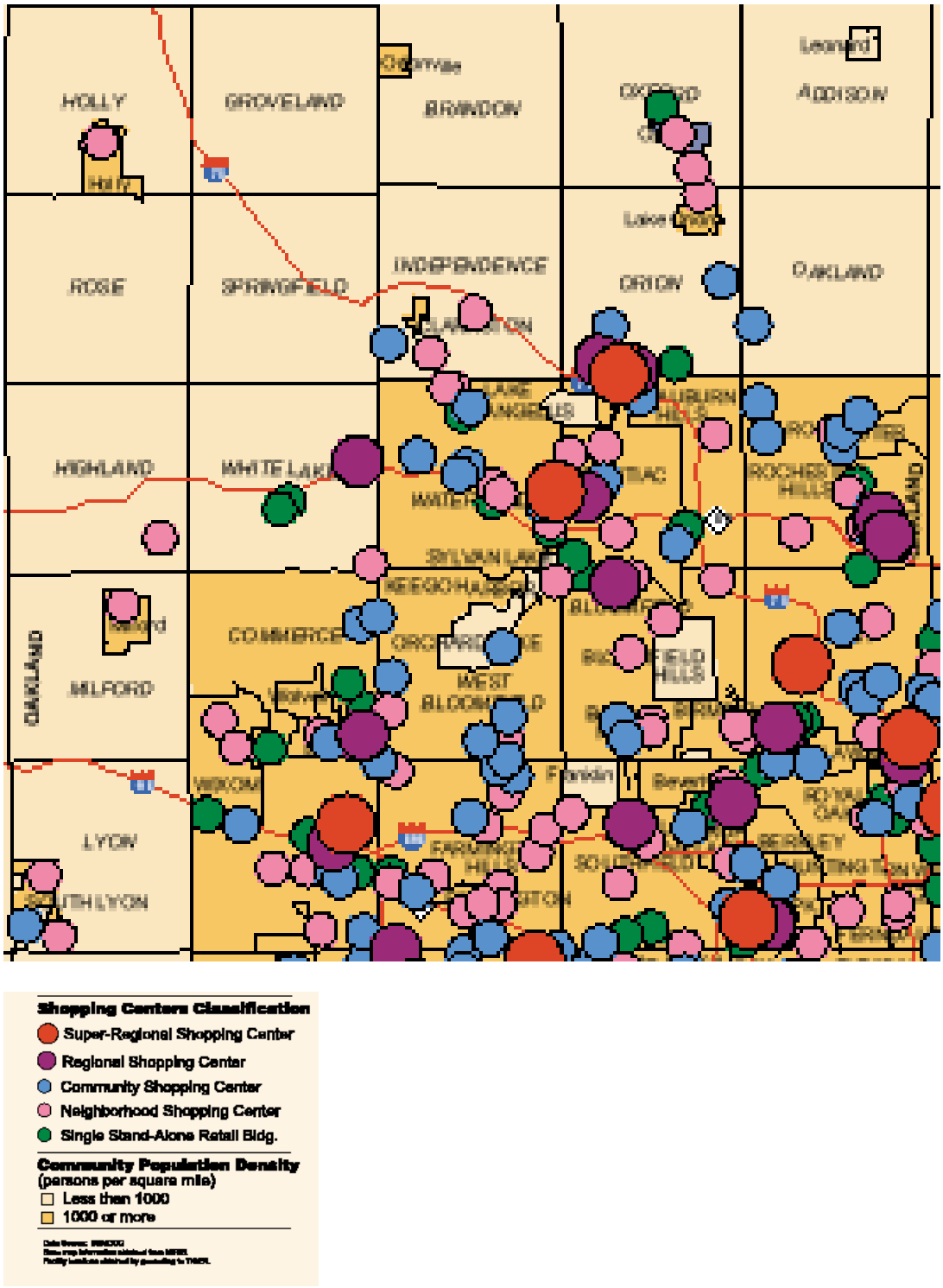


Source: U.S. Census Bureau, Waterford Township Community Planning and Development Department

Competitive Influences

In 2001, the Southeast Michigan Council of Governments (SEMCOG) prepared a location map of all of the retail shopping centers in the SEMCOG region. SEMCOG classifies shopping centers by the retail classifications shown in Table A-16. Oakland County contains over 190 shopping centers containing nearly 36 million square feet of floor space. The location of Oakland County's shopping centers is shown in Map A-3. Through a visual analysis of Map A-3, there are five major trading areas that exist to serve communities on a regional basis. These five trade areas are Waterford, Auburn Hills, Novi/Farmington Hills, Southfield, and Rochester/Troy. While the existence of these regional trading areas within the County's boundaries impacts the potential customer base for Waterford Township's primary comparison trading area, each of the other four trading areas affects the Waterford area in its own way. Perhaps the trading area with the greatest potential impact to draw away customers is the Auburn Hills trading area due to its proximity and easy access to Waterford customers and to the customers in the eastern and growing western communities. The other regional trading area with a high potential to draw customers from Waterford's trading area is the Novi/Farmington Hills trading area. This trading area overlaps the southern communities in the Waterford area, probably drawing the highest number of customers away in the southernmost sections of these shared communities. The Troy/Rochester Hills trading area probably has the greatest impact on drawing away the upscale customer base, particularly to the Somerset Collection center. Perhaps the area with the least impact is the Southfield area, due to distance and traffic flow patterns. Competitive influences will continue to impact the viability of Waterford Township's primary trading area unless efforts are made by both the private and public sectors to maintain, enhance, and expand the consumer drawing capacity.

Map A-3
Shopping Center Classification Distribution
Oakland County
2001



Source: Southeast Michigan Council of Governments

Table A-16
Shopping Centers by Retail Classification
Southeast Michigan
2001

Retail Classification	Floorspace Size Range *(square feet)*	Number of Centers	Total Floorspace *(square feet)*
Super-Regional Shopping Center	750,000 and above	21	25,453,787
Regional Shopping Center	300,000 to 749,999	43	17,538,039
Community Shopping Center	100,000 to 299,999	188	30,069,897
Neighborhood Shopping Center	30,000 to 99,999	219	14,670,817
Single Stand-Alone Retail Building	30,000 and above	141	16,976,611
Total		612	104,709,151

Source: Southeast Michigan Council of Governments

Traffic Flow

Retail shopping is significantly affected by location along major thoroughfares and the relative ease of access into and out of shopping centers. M-59 affords ready access into Waterford for potential consumers in both the eastern and western neighboring communities. Similarly, Dixie Highway serves to provide the same ready access for the northern communities. Telegraph Road effectively serves both the southeastern and northeastern communities. The only area where access is highly constrained is in the southwestern communities. This is especially the case for potential customers living in the southernmost sections of these communities. This constraint on traffic flow from the southwestern-most communities is also affected by existing natural barriers.

Natural Barriers

Lakes form the most prevalent barriers to consumer movement relative to Waterford Township's comparison shopping base. This is most evident to the south of Waterford where the high market potential customers of West Bloomfield and Commerce Township reside. Lakes also hinder consumer movement to Waterford Township from some sections of the Orion Township area, although the extension of Telegraph Road to Walton Boulevard will help to increase access for potential customers residing in Orion Township.

Township Shopping Areas

Because the majority of Waterford's trade area consumers reside outside of the Township, the Township's commercial base should remain along the M-59, Dixie Highway, and Telegraph Road corridors to readily serve both Waterford residents and the residents of neighboring communities. Waterford Township's existing and potential comparison shopping base has evolved around six identifiable clustered areas of development.

The primary retail draw in Waterford for potential customers is that of the Summit Place Mall and the surrounding area. This area is classified by SEMCOG as a super-regional shopping center. Another area is the commercial properties in the center of the Township along M-59. There are two community shopping centers, two neighborhood shopping centers, and one major stand-alone retail building within this area. A third major cluster of comparison uses also exists along the northwestern portion of Dixie Highway, which contains retail properties around the K-Mart shopping plaza. The area near the Oakland County International Airport contains comparison shopping capacity that creates a fourth cluster of retail properties. The fifth shopping area identified within the Township is the Union Lake/Four Towns area in the southwest section of the Township along Cooley Lake Road between Williams Lake Road and Hospital Road. The sixth area is a traditional urban-style retail center located along M-59 near the Telegraph Road and M-59 intersection.

Several minor retail centers which are convenience-oriented are located throughout the Township. These centers serve to provide the daily shopping needs of residents of the surrounding local neighborhoods. Convenience shopping uses relate to the day-to-day purchases from businesses such as grocery stores, drug stores and food/drink establishments.

Office Use Potential

The Township's office uses primarily serve medical, financial, and professional firms in small one- or two-story structures. There are no large office parks. Most notably, there are no substantial concentrations of office complexes near the Oakland County International Airport and the Oakland County Service Center, where such office complexes would complement and enhance the uses found at these locations.

Industrial Use Potential

Industrial uses in Waterford have remained relatively static over the past fourteen years, growing from 433 acres in 1989 to 492 acres in 2002. Industrial uses are not anticipated to expand beyond the current total acreage. Instead, it is anticipated that industrial redevelopment will occur during the next twenty years. A review of older industrial uses indicates a high incidence of site underutilization. Few sites provide amenities such as sufficient parking, landscaping and loading zones that would be consistent with the current zoning requirements. The Township is also concerned that older industrial uses may be contaminating sites without public knowledge. Obviously, such uses create an environment that is less than attractive and discourage more desirable development. In view of Waterford's efforts for economic development and mandatory concern for water quality, consideration should be given to the creation of a systematic program of site inspections as well as a continuation of the Township's brownfield redevelopment efforts.

Economic Conditions Conclusions

Waterford Township is a developed suburban center that has experienced a slowdown in the amount of new growth within its borders. However, redevelopment efforts can enable the Township to continue gaining economic momentum and offering a promising future as Waterford continues to mature. Since this background study is intended as a brief synopsis of the economic conditions of Waterford Township, it is not meant to replace long-range detailed study and analysis of important local economic indicators such as labor force statistics, base jobs, and major sources of employment. These complex analyses should be implemented as part of the Master Plan, as time and staffing permits. The following observations and conclusions derived from this brief background study should be incorporated into the Master Plan Goals and Objectives.

- Waterford Township is in need of a comprehensive economic development action plan.
- The Township should act proactively to promote economic development.
- Waterford is an attractive location for business activities.
- Township Boards and Commissions should be educated on the availability and value of economic development tools and efforts.
- The physical appearance and functional character of the commercial corridors should be improved and enhanced.

TAX BASE

The vitality of the local economy requires a stable existing tax base and employment sector. An understanding of these components is important in developing and implementing a long-range plan for commercial and industrial use of land that is compatible with other land uses; fosters and encourages sound employment opportunities for the local population; improves the Township tax base; and coordinates the overall physical development and redevelopment of the Township.

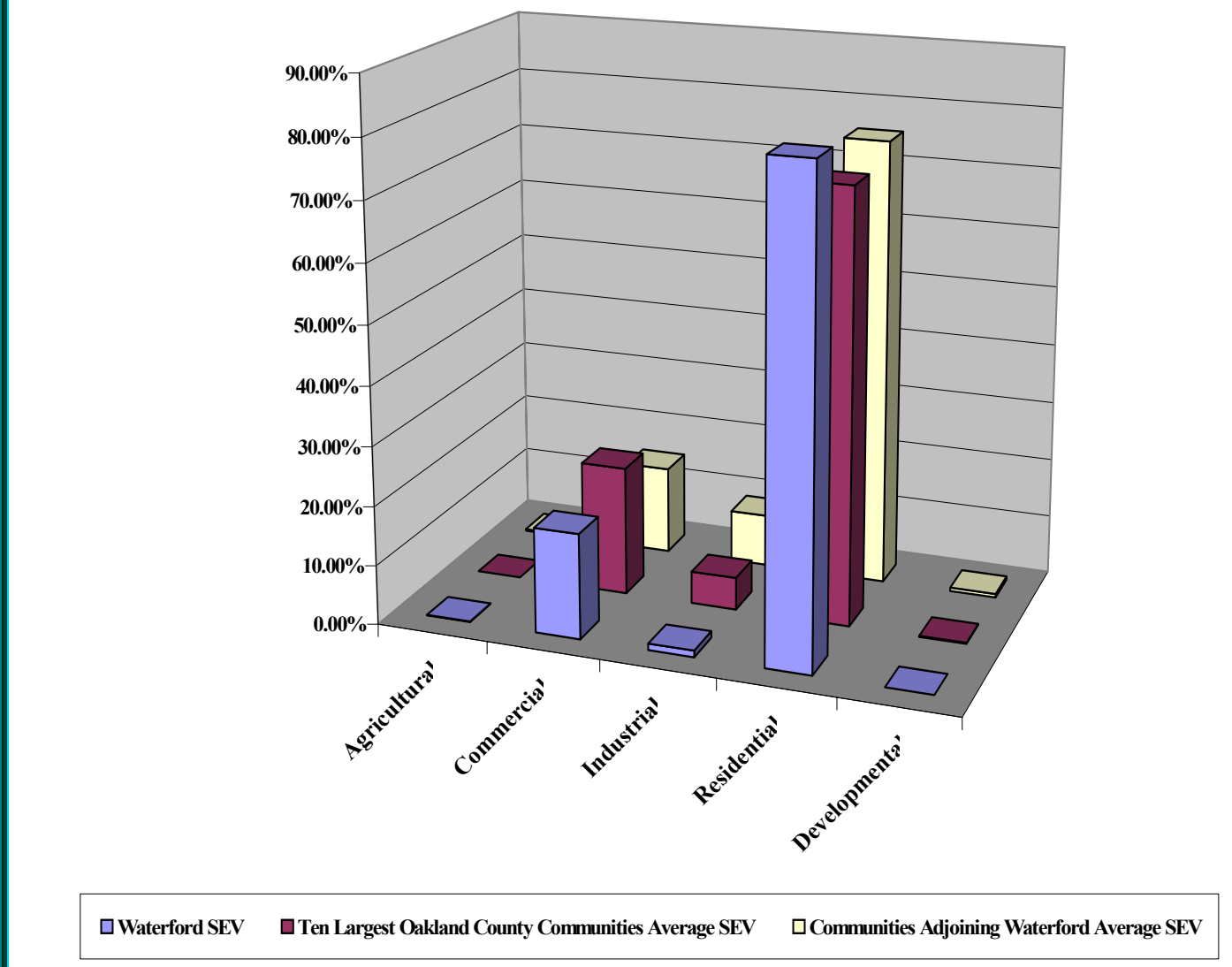
The state equalized value (SEV) for real property in Waterford Township has steadily increased during the past ten years. In Waterford, residential use of real property provides 81 percent of the total SEV, commercial use of property is nearly 18 percent, industrial use of property is a little more than one percent, and agricultural use less than one percent, as shown in Table A-17. The distribution of Waterford's SEV among the different use classifications is comparable to the average SEV of the ten largest communities in Oakland County and to the average SEV of the communities adjoining Waterford, as is shown in Figure A-7 below. However, Waterford does rely on residential use for a larger percentage of its total SEV as its tax base than either the average for the largest or the adjoining communities. Industrial use is relied upon less in Waterford for its SEV than either of the averages for the largest and adjoining communities, whereas Waterford's reliance on commercial use for SEV falls in between the respective average percentages shown for the largest Oakland County communities and those communities adjoining Waterford. Tables A-18 and A-19 reveal additional SEV related data.

Table A-17
Real State Equalized Value Classification Distribution
Waterford Township
1992 and 2002

Classification	Total Real SEV		Percent of Total	
	1992	2002	1992	2002
Agriculture	$ 1,611,000	$ 1,945,920	0.10	0.08
Commercial	$ 272,163,500	$ 459,392,274	24.10	17.7
Industrial	$ 22,253,700	$ 28,466,370	2.0	1.1
Residential	$ 833,741,700	$2,105,186,574	73.80	81.12
Total	$1,129,869,900	$2,594,991,138	100.00	100.00

Source: Oakland County Planning and Economic Development Services, Waterford Township Assessing Department

Figure A-7
Real State Equalized Value Classification Distribution Comparison
Waterford Township and Selected Oakland County Communities
2002



Source: Oakland County Planning and Economic Development Services, Waterford Township Assessing Department

Table A-18
Total Real State Equalized Value
Waterford Township
1992-2002

Year	Total Real SEV
1992	$1,129,869,900
1993	$1,254,519,400
1994	$1,279,657,800
1995	$1,380,984,680
1996	$1,535,215,242
1997	$1,679,241,985
1998	$1,818,275,000
1999	$1,997,784,495
2000	$2,183,725,455
2001	$2,379,338,744
2002	$2,594,991,138

Source: Waterford Township Assessing Department

Table A-19
Total Real State Equalized Value Comparison
Waterford Township and Surrounding Communities
2002

Community	Total Real SEV	Percent Share of County Total
Waterford Township	2,594,991,138	4.5
West Bloomfield Township	3,858,431,572	6.6
Independence Township	1,524,399,400	2.6
Commerce Township	1,839,154,120	3.2
White Lake Township	1,035,482,522	1.8
City of Pontiac	1,337,911,230	2.3
Oakland County	58,197,370,454	100.0

Source: Oakland County Planning and Economic Development Services

EMPLOYMENT

The number of people within the labor force (16 years and over) increased by 10.5 percent while the number of people unemployed decreased by 28.9 percent during the 1990 to 2000 period, as seen in Table A-20. These numbers are consistent with a population that is experiencing growth in the older age brackets of its population.

Table A-20
Employment Classification Distribution
Waterford Township
1990 and 2000

Employment Classification	1990 Census		2000 Census		1990-2000 Percent Change
	Number	Percent	Number	Percent	
Population 16 years and over	52,512	100.0	58,020	100.0	10.5
In labor force	37,558	71.5	39,868	68.7	6.2
Employed	35,222	93.8	38,209	95.8	8.5
Occupation Management and professional	n/a	n/a	12,245	32.0	n/a
Service	n/a	n/a	5,329	13.9	n/a
Sales and office	n/a	n/a	11,152	29.2	n/a
Farming, fishing, and forestry	n/a	n/a	71	0.2	n/a
Construction and related	n/a	n/a	3,940	10.3	n/a
Unemployed	2,309	7.9	1,641	6.4	-28.9
Not in labor force	14,954	28.5	18,152	31.3	21.4

Source: U.S. Census Bureau

With a mean commuting time of 29 minutes, a 20.8 percent increase since 1990, and less than one percent walking to work, it appears that a majority of Waterford residents work outside of the Township. Significantly, nearly 90 percent of these residents drove alone, at the same time the use of carpooling has dropped nearly 15 percent since 1990, as shown in Table A-21.

Table A-21
Means of Employment Transportation
Waterford Township
1990 and 2000

Means of Employment Transportation	1990 Census		2000 Census		1990-2000
	Number	Percent	Number	Percent	Percent
Total Workers Age 16 or Older	34,525	100.0	37,509	100.0	8.6
Drove Alone	30,475	88.3	33,616	89.6	10.3
Carpool or Vanpool	2,846	8.2	2,422	6.5	-14.9
Public Transportation	52	0.2	57	0.2	9.6
Walked to Work	370	1.1	332	0.9	-10.3
Other Means	127	0.4	127	0.3	0.0
Worked at Home	655	1.9	955	2.5	45.8
Mean Travel Time to Work *(in minutes)*	24		29		20.8

Source: U.S. Census Bureau

Table A-22
Major Sources of Employment
Waterford Township
2002

Name Of Firm	Number Of Employees	Product Service
Waterford School District	1,660	Education
GM Parts Division	1,000	Automotive Parts
Meijer, Inc.	645	Grocery/Department Store
Marshall Field	400	Department Store
K Mart Corp.	395	Department Store
Waterford Township	385	Local Government
V.G.'s	375	Grocery Store
Sears Roebuck	310	Department Store
Oakland Intermediate School District	250	Intermediate Schools Offices
Staffing Specialists, Inc.	235	Leased Employees
J.C. Penney Co., Inc.	215	Department Store
Wal-Mart/Sam's Club	160	Grocery/Department Store
Target	140	Department Store
Tru-Val Tubing Co.	130	Pipe Fabrication
Kohl's	125	Department Store
Terry Machine Co.	115	Bolt/Nut/Screw Manufacturing
Canterbury on the Lake	115	Senior Living/Health Care

Source: Oakland County Planning and Economic Development Services

EDUCATION

The United States Census Bureau changed the classifications for school enrollment between the 1990 and 2000 Census, so direct correlation is difficult. However, there has been a 10.3 percent increase in school enrollment during the 1990 to 2000 period, as shown in Table A-23.

Table A-23
School Enrollment
Waterford Township
1990 and 2000

School Enrollment [1]	1990 Census		2000 Census		1990-2000 Percent Change
	Number	Percent	Number	Percent	
Population 3 years and over enrolled in school	16,299	100.0	17,984	100.0	10.3
Nursery and preschool	n/a	n/a	1,486	8.3	n/a
Kindergarten	n/a	n/a	1,056	5.9	n/a
Elementary school (grades 1-8)	n/a	n/a	7,305	40.6	n/a
High school	n/a	n/a	3,658	20.3	n/a
College or graduate school	4,557	28.0	4,479	24.9	-1.7

Source: U.S. Census Bureau
[1] Note: School enrollment data detail not available for 1990 Census

The residents of Waterford have made significant gains in educational attainment during the last decade. The number of individuals who did not graduate from high school decreased by 20 percent between 1990 and 2000 while there were double digit gains in individuals achieving some level of higher education during the same time period, as shown in Table A-24.

Table A-24
Educational Attainment
Waterford Township
1990 and 2000

Educational Attainment	1990 Census		20000 Census		1990-2000 Percent Change
	Number	Percent	Number	Percent	
Population 3 years and over enrolled in school	43,811	100.0	50,210	100.0	14.6
Did Not Graduate High School	8,017	18.3	6,414	12.8	-20.0
Graduated High School	15,031	34.3	15,155	30.2	0.8
Some College, No Degree	10,407	23.8	12,718	25.3	22.2
Associate Degree	3,197	7.3	3,909	7.8	22.3
Bachelor's Degree	5,348	12.2	8,684	17.3	62.4
Graduate or Professional Degree	1,811	4.1	3,330	6.6	83.9

Source: U.S. Census Bureau

ENVIRONMENTAL RESOURCES

Environmental awareness and reasonable environmental protection remain high priority goals in Waterford. Legislation at all levels of government continues to empower the Township in achieving these goals through regulation of the environmental aspects of planning and land use. While there are still those who advocate no new development to preserve a pristine environment as well as those who protest any governmental standards and restrictions, a middle ground must be continuously sought and maintained between these two positions. In order to maintain this balance and ensure that regulatory measures retain their effectiveness and relativity, existing standards must be subjected to an ongoing reevaluation process. Part of any successful reevaluation process requires increased public education and awareness as an integral component for promoting environmental awareness and protection. This environmental awareness must play a major role in Waterford's planning process so that the community can sustain the clean, sound environment essential for the community's health, safety, and welfare, attain the widest beneficial use of resources without degrading the environment, preserve cultural, natural and historical aspects, and promote the recycling of resources where possible.

It is the intent of the Waterford Master Plan to facilitate the reevaluation process so that the community's expressed environmental needs are coordinated and integrated into the planning and zoning processes. The foundation for both the reevaluation and environmental awareness processes is an analysis of the historical context of the Township's environment. In addition, a review of the current condition of the major environmental components, such as watersheds, water resources, wetlands and floodplains, water quality, groundwater protection, topography, soils, woodlands, natural features, and waste disposal/processing is important to provide the understanding necessary to provide a balanced and complete reevaluation. A review of the various environmental components is presented on the following pages.

Historic Context

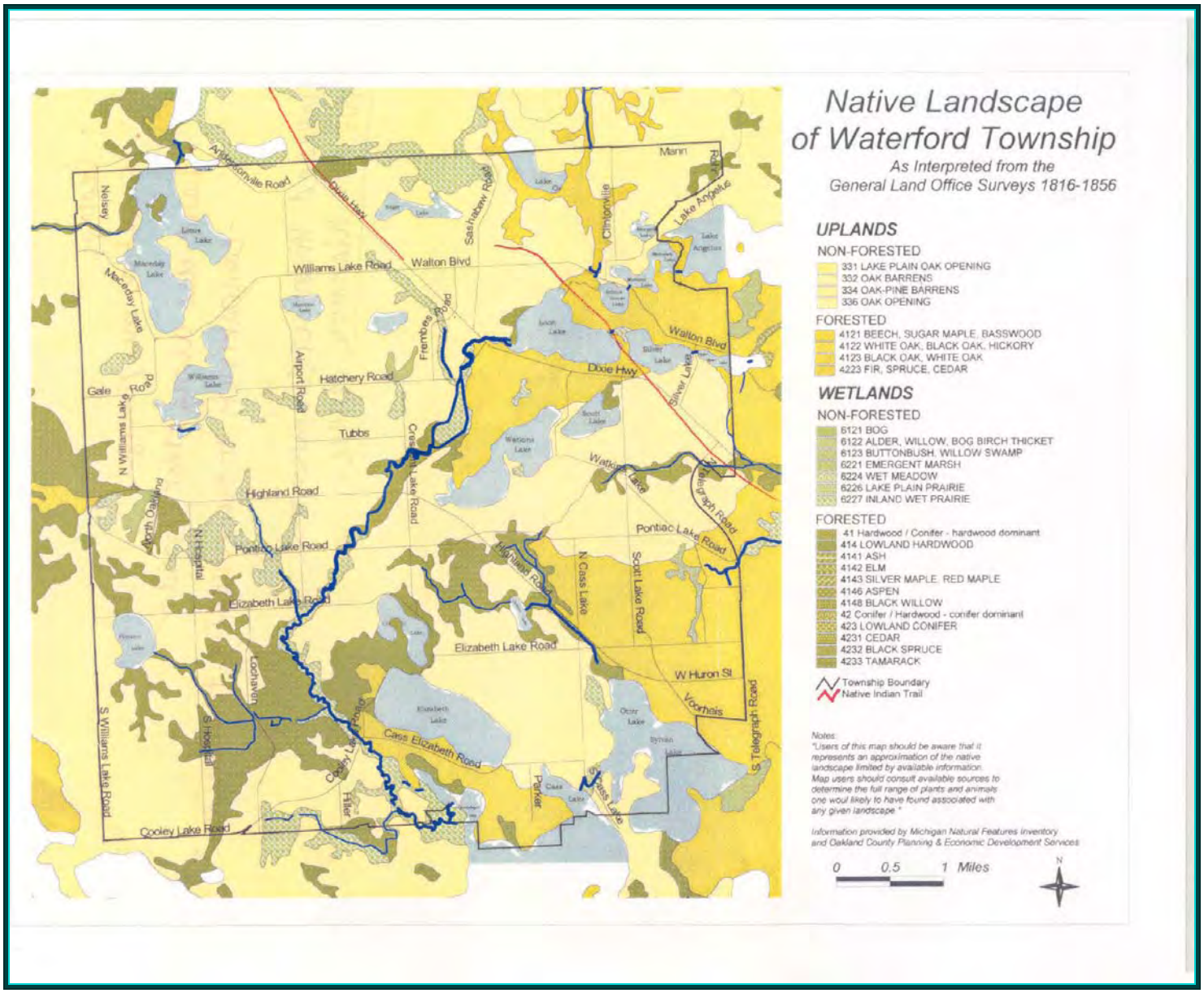
Waterford Township was primarily woody scrublands in the 1800s with substantial wetland and water cover, as well as forest cover, as is shown in Table A-25 and Map A-4. Nearly 13,000 acres, or 58 percent of Waterford's land was covered by woody scrublands depicted as the open savannahs and barrens on Map A-4. These were areas of scattered oaks mixed with tall grass prairie. Wetlands, lakes, and rivers covered nearly 6,400 acres, or 28 percent. The remaining 3,099 acres, or 14 percent, of land was covered by broadleaf and evergreen forest. For comparison purposes, the existing land use in 2001 is developed on 55 percent of Waterford's land, with 10,443 acres used for residential and 2,126 acres used for commercial and industrial purposes. Approximately 3,570 acres, or 16 percent, was used for public and recreational purposes in 2001. Fifteen percent, or approximately 3,283 acres, of the Township land remains as water in 2001. The transformation of Waterford's landscape during the past 200 years had the greatest impact on the amount of oak habitats, with the majority of this land cleared for development of the Township's residential and commercial uses. The second largest impact can be seen in the reduction of the amount of land designated as wetlands, lakes, and rivers. The greatest share of this reduction can probably be attributed to the development practices prior to the mid-1970s where wetlands were typically filled and developed.

Table A-25
Native Land Cover Distribution
Waterford Township
1816-1856

Land Cover	Acres	Percent
Broadleaf Forest	2,854.4	12.7
Spruce/Fir/Cedar Forest	244.5	1.1
Forested Wetlands	2,401.5	10.7
Woody Shrub/Scrub	12,992.2	57.9
Non-Forested Wetlands	1,224.1	5.5
Lake/River	2,736.2	12.2
Total	22,452.9	100.0

Source: Michigan Natural Features Inventory

Map A-4
Native Landscape of Waterford Township

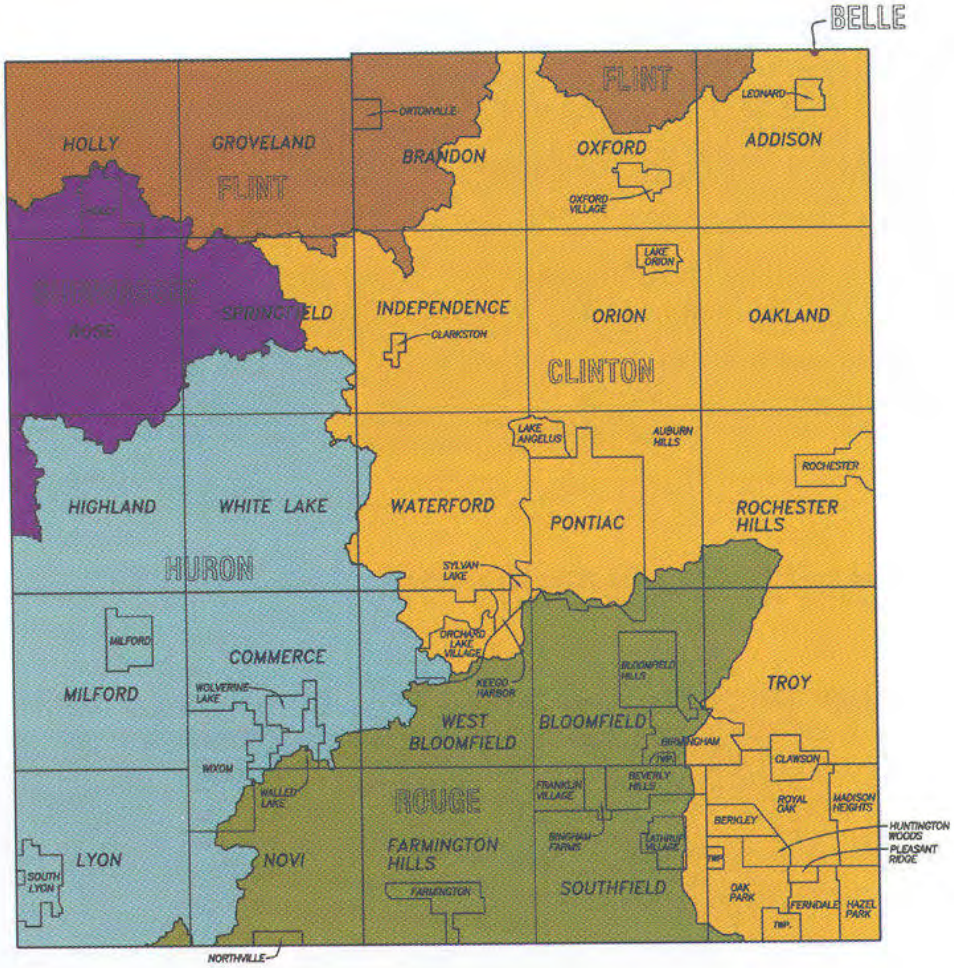


Source: Michigan Natural Features Inventory, Oakland County Planning and Economic Development Services

Watershed

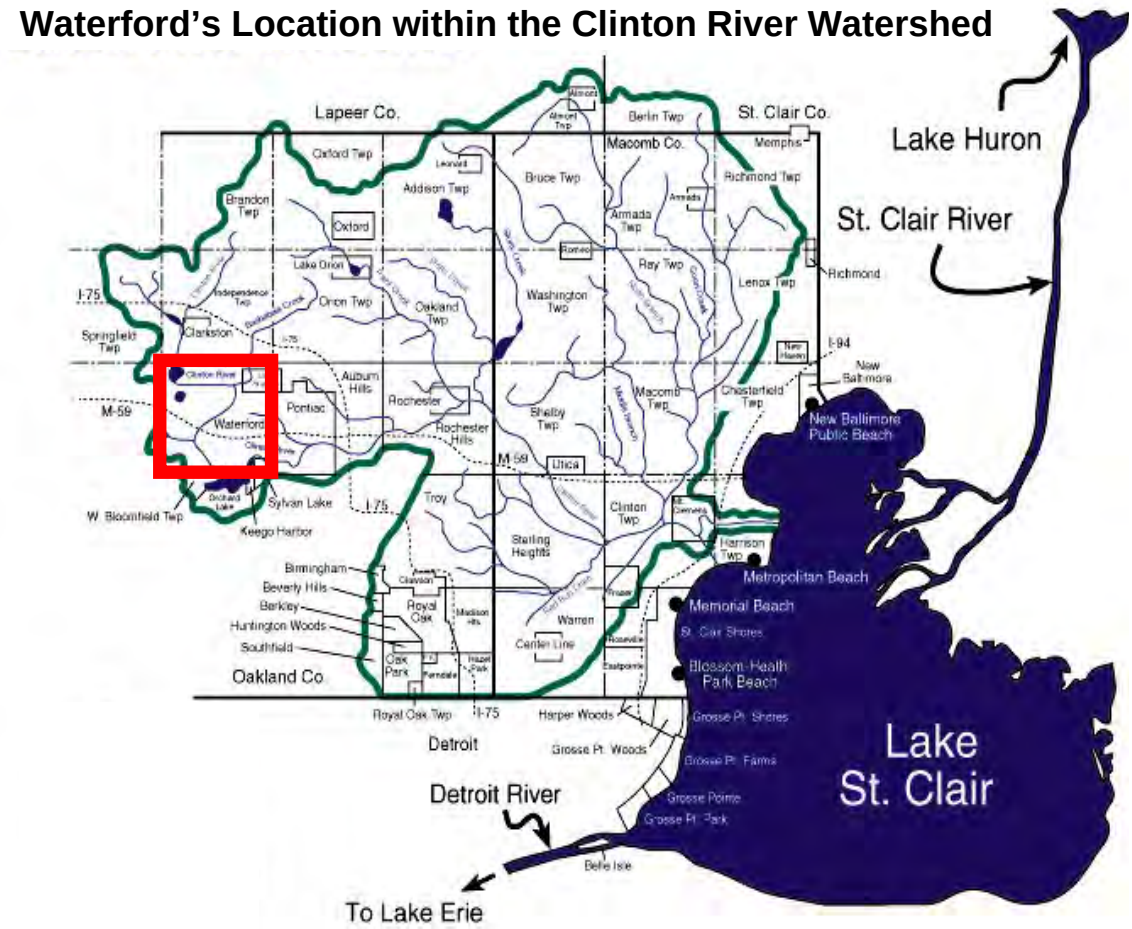
A watershed is the land that catches rain or snow and drains or seeps into a common marsh, stream, river, lake, or groundwater. The headwaters of five major drainage areas begin in Oakland County, the Clinton, the Huron, the Rouge, the Flint, and the Shiawassee. The general location of each watershed in the County is shown on Map A-5. The majority of Waterford is located in the Clinton River Watershed. Waterford's location within the Clinton River Watershed is shown on Map A-6. The entire Clinton River watershed covers approximately 768 square miles in four Southeast Michigan counties – about 40 percent of eastern Oakland County, most of Macomb County, and small portions of southern Lapeer and St. Clair Counties. The Clinton River and its tributaries flow through 60 rural, suburban, and urban communities with a total population of more than 1.6 million.

Map A-5
Watersheds in Oakland County



Source: Oakland County Drain Commissioner

Map A-6
Location of Waterford Township within the Clinton River Watershed



Source: Clinton River Watershed Council

Waterford is located near the headwaters of the Clinton River watershed in Springfield and Independence Townships. Land use in Waterford has the potential to impact the water quality within an approximate 330 square mile area. While sections of the watershed in the northern reaches of the county contains several cold water trout streams, Waterford hosts a warm-water fishery influenced by low gradient and abundant lakes (1997 Aquatic Habitat Survey of the Clinton River Watershed, Clinton River Watershed Council, 1998). The western portion of the watershed is often referred to as the lakes area in reference to the numerous inland lakes. The diverse river basin includes a number of ecosystems such as wetlands, prairies, and hardwood forests. These ecosystems contain a variety of wildlife and vegetation types.

Water Resources

Waterford's primary environmental landmark is its water resource network of lakes, the Clinton River, streams, and wetlands. The 34 lakes make up the largest component of the water resources. Historically, residential use has surrounded the lakes, first as summer cottages and then as full-time residences. Activities such as boating, fishing, and swimming are enjoyed by the lakefront residents. Certain lakes have public access, Cass Lake, Crescent Lake, Lake Oakland, Loon Lake, Maceday Lake, and Pontiac Lake. Since the Township's water resource network serves multiple functions, it is crucial to ensure its health and viability for the benefit of present and future residents of the Township.

The survey of land use indicates approximately 3,282 acres of surface area in Waterford is composed of surface water, this constitutes 15 percent of the total land area. The water resources that are located totally within the political boundaries of the Township range from ponds of several acres to one lake over 360 acres. When the lakes that extend into adjoining communities are included, the total water surface area involved approaches 5,000 acres. In addition, the Clinton River flows through the Township from north to south and is another of Waterford's environmental landmarks. Creeks and streams are another link in the water resources system, connecting lakes and wetlands with each other. Storm water run-off is conveyed from wetlands and upland areas to downstream lakes and eventually to the Clinton River.

Sources of water include rainfall, surface runoff, springs, and aquifers. Aquifers are essentially underground formations composed of water-bearing earth, sand, gravel, permeable stone or fractures in non-porous stone or clay. These aquifers are located at varying depths and each such layer may vary greatly in its depths in differing locations. Aquifers are the source of many domestic, commercial and industrial water supplies through wells of varying sizes and depths. Waterford Township derives its municipal water supplies from wells. Prudent management of surface area discharges is required to minimize any risk of contamination to our resources.

Wetlands

The protection of wetlands continues to be a priority concern for Waterford. The term "wetlands" encompasses a variety of wet environments, inland marshes, wet meadows, mudflats, ponds, bogs, bottomland hardwood forests, and wooded swamps. Wetlands perform three basic functions. First, wetlands affect the quantity of water by controlling the flow of water. During periods of heavy rainfall, wetlands act as retention basins for runoff, thereby helping to minimize the inundation of flood waters in other areas. Second, wetlands affect the quality of water. The wetlands provide a filtering area for waters entering lakes, streams, etc., and facilitate recharging of ground water supplies by filtering sediment and trapping nutrients from upland runoff, thus cleansing water before it enters adjacent water bodies and reducing stream bank erosion caused by storm water runoff. Third, wetlands contribute to environmental health and diversity by providing breeding, nesting, resting and feeding grounds for myriad forms of wildlife.

The effort to preserve and protect wetlands has been assisted through the following Township Ordinances and State statutes adopted since 1972. These regulatory measures provide protection for wetlands and related areas such as rivers, lakes and streams. Together, the controls instituted by these legislative policies are used to implement the goals of preserving the wetland natural resources of the Township.

- *Waterford Township Ordinance No. 155 – Wetlands Ordinance* was enacted in 1994 to

regulate and protect Waterford's wetlands. This Ordinance was adopted by the Township Board because it recognized, as stated in the Ordinance,

> "that wetlands conservation is a matter of township concern inasmuch as a loss of a wetland, and particularly in cumulation with other losses of wetlands, will deprive the people of the township or others of flood and/or storm control, wildlife habitat, protection of subsurface water resources and provision of valuable watersheds and recharging groundwater supplies, pollution treatment, erosion control and sources of nutrients. It is further recognized by the township board that rapid growth, the spread of development, and increasing demands upon natural resources, have resulted in the shrinkage of the critically necessary domain of wetlands and have had the effect of encroaching on, despoiling, polluting or eliminating many wetlands, and other natural resources, and the public trust therein, and that preservation of the remaining wetlands in an undisturbed and natural condition shall be and is necessary to maintain important physical, aesthetic, recreational and economic assets for existing and future residents of the township and of this state."

This Ordinance is administered through the Township Building and Engineering Department. The Planning Commission also acts as the Wetlands Review Board and reviews applications for projects that fall under the jurisdiction of the Ordinance and grants permit approvals where they deem appropriate.

- *Waterford Township Zoning Ordinance Section 2540 - Natural Feature Setback* was enacted in 1996 and the intent of this section is to require a minimum setback from natural features, defined as wetlands in accordance with the Township Wetlands Ordinance and also watercourses such as lakes, ponds, rivers, streams, or creeks. This is to prevent physical harm, impairment and/or destruction of or to a natural feature. It had been determined by the Township that, in the absence of such a minimum setback, intrusions in or onto natural features would occur, resulting in harm, impairment and/or destruction of natural features contrary to the public health, safety and general welfare. It was also recognized that there is a special relationship, between natural features and the adjoining uplands that must be preserved and protected.
- *Michigan Public Act 451 of 1994 – Michigan Natural Resource and Environmental Protection Act***,** formerly known as the Michigan Environmental Protection Act, P.A. 127 of 1970, was enacted to protect the environment and natural resources of the State by codifying, revising, consolidating, and classifying related laws. The Act also regulates the discharge of certain substances into the environment by regulating the use of certain lands, water and other natural resources through prescribed powers and duties of State and local agencies/officials which includes assessing certain charges and fees for permits and penalties.
- *Michigan Public Act 346 of 1972 - The Inland Lakes and Streams Act* regulates dredging, filling and construction, in, over, and below the ordinary high water mark of State waters. This typically includes adjacent shorelands and contiguous wetlands.
- *Michigan Public Act 203 of 1979 - The Goemaere-Anderson Wetland Protection Act* provides for the preservation and proper management of wetlands and is administered by the Department of Natural Resources. The Department receives and reviews applications for permits for alterations, typically construction projects, in wetlands that fall under the jurisdiction of the Act.

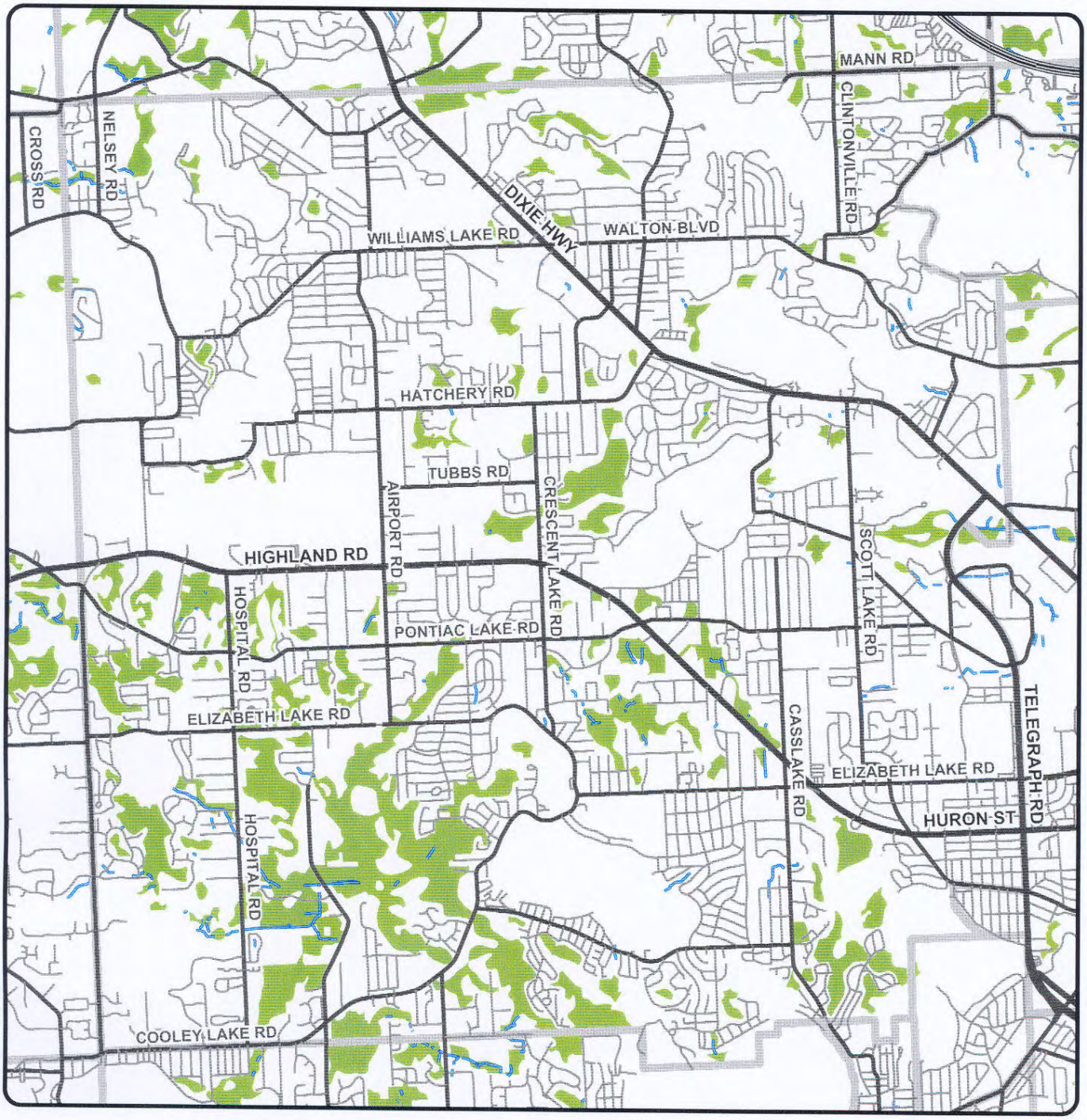
The Michigan Department of Environmental Quality (MDEQ) governs wetlands of five acres or more in counties with populations over 100,000, including Oakland County, under the Goemaere-Anderson Wetland Protection Act. Waterford Township regulates wetlands of

two acres or more in size through its Wetland Ordinance. The general location of wetland areas within the Township are shown in Map A-7. It should be noted that the wetland boundaries shown on Map A-7 are general in nature and should not be considered as actual wetland limits. As development activity is proposed on parcels with regulated wetlands, a field survey should be conducted to determine the exact boundaries and quality of such areas. Therefore, it is important to understand that the designated wetland areas, as depicted on the maps in this Master Plan are not to be considered definitive. Property owners and developers must also be aware that wetlands exist in areas not designated on the map. It is, therefore, essential that developers properly verify that no wetlands exist on a site and provide competent and experienced personnel to map wetlands that do exist.

It is also recommended that continued efforts be given to the assembly and analysis of additional basic wetland and stormwater data. Each wetland has certain unique characteristics and physical limitations. Estimating and predicting these characteristics will make it possible to more accurately determine the need for pretreatment of stormwater or other preventive measures. A better understanding of the differing elements going into wetlands under differing conditions is also needed. It would also be very useful to have a better understanding of recharge needs in an area; this would assist greatly in establishing an indication of relative priorities and design needs.

The entire process of wetland protection and mitigation requires continuing research and monitoring. The more detailed evaluations will require input from environmental specialists, geologists, botanists, engineers, planners, and also involve cooperation with the Michigan Department of Natural Resources and MDEQ.

Map A-7
Major Wetland Areas within Waterford Township



Source: Oakland County Planning and Economic Development Services

Flood Plains

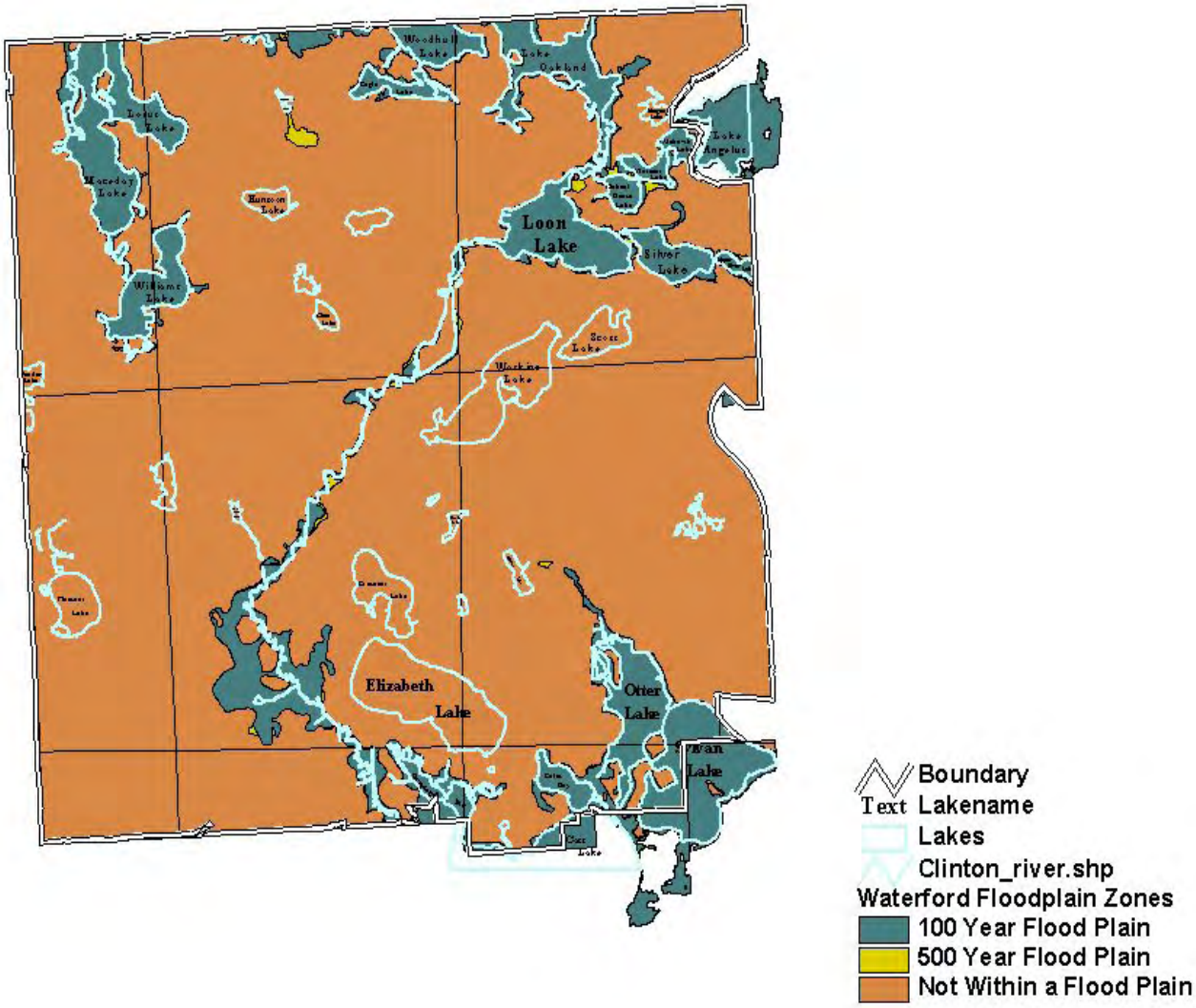
A flood plain is an area adjoining a lake, stream, river, or pond that receives excess water from occurrences such as a severe rainstorm that results in flooding conditions. A delineated flood plain is produced where flooding occurs with frequency and predictability within an area due to natural topography and proximity to a body of water. Water exceeding the normal average level is stored as a temporary lake across a flood plain. As long as the overflow remains on the flood plain, this volume is not added to the floodwater moving downstream. When flood plain storage is prevented by restricting the water flow to a channel, the volume and size of the flood may be increased downstream causing higher water levels and more damage.

Flood plain areas are delineated to indicate the chance of a flood occurring at a given location. This measuring or delineating is done regarding the probability of flooding, usually once in 50, 100, or 500 years. Flood plain delineation is required for home and business construction loans and the Federal Flood Insurance program. The Federal Flood Insurance Program accepts the 100 year flood plain as the minimum standard for protection. A 100 year flood is a flood which has a probability of reaching a given elevation once in 100 years, or a one percent chance of occurring in any given year. The delineated flood plain areas in Waterford are shown in Map A-8.

The effort to regulate development in floodplain areas has been assisted through the following Township Ordinance and State statute.

- *Waterford Township Ordinance No. 138 – Waterford Township Floodplain Management Ordinance* was enacted in 1983 to regulate development within the areas designated as floodplains. The administration of this Ordinance is the responsibility of the Township Building and Engineering Department.
- *Michigan Public Act 167 of 1968 - The Floodplain Regulatory Authority* regulates activity within the 100-year floodplain and floodways of watercourses containing a drainage area of greater than two square miles.

Map A-8
Flood Plain Areas within Waterford Township



Source: Waterford Township GIS

Groundwater Recharge Areas

Water stored in, and slowly filtered through, geologic formations is referred to as ground water. An aquifer is a geological formation that contains sufficient ground water to supply wells, lakes, springs, streams and/or wetlands. Precipitation reaches an aquifer by downward percolation from the surface. A land surface which readily permits water to move downward into an aquifer is referred to as a ground water recharge area. Underground aquifers serve three major functions:

- natural water supply reservoirs for human consumption and land irrigation
- effective groundwater filtering system where sound land use and pollution prevention practices exist in recharge areas
- Regulates and stabilizes surface water levels.

These benefits are balanced by the fact that groundwater recharge lands have limited filtering and purification capabilities. Contamination that occurs both in low levels spread over large areas and in high concentrated levels on specific sites can threaten the quality of a groundwater supply. Sources such as chemical spills and sewage system malfunctions could be responsible for contamination problems. Because of rapid to moderately rapid permeability of the underlying geology, the designated recharge areas do not completely filter contaminants from the descending water. Recharge areas and their related aquifers are therefore subject to pollution from various sources. The more rapid the percolation of water, the more susceptible the recharge area and aquifer are to pollution. Since Waterford's water supply system is dependent upon groundwater, it is imperative to protect these areas from pollutants.

Water Quality

Water resources are not indestructible. They have a limited lifespan when the health of the water body is not monitored and attended to, the same as any living organism. This statement applies to both surface water and ground water. One measure that can assist in gauging the health of a surface water body is by determining its trophic classification. The trophic classification system provides information about the level of nutrients (such as nitrogen and phosphorus) and algae that exist in a surface water body. The following are the four trophic classifications.

- Oligotrophic: lakes are clear and blue, with very low levels of nutrients and algae.
- Mesotrophic: lakes have moderate levels of nutrients and algae.
- Eutrophic: lakes are green and murky, with higher amounts of nutrients and algae.
- Hypertrophic: lakes are highly fertile and supersaturated with nutrients. There is excessive phytoplankton growth that contributes to poor water clarity, restricts the habitat for desirable fish, and reduces the viability for recreational use.

The process of aging and death of a lake based on the trophic classification system is termed "eutrophication." A U.S. Environmental Protection Agency definition which summarizes this cycle is as follows:

> "The normally slow aging process by which a lake evolves into a bog or marsh and ultimately assumes a completely terrestrial state and disappears. During eutrophication, the lake becomes so rich in nutritive compounds, especially nitrogen and phosphorous, that algae and microscopic plant life become super-abundant, thereby "choking" the lake, and causing it eventually to dry up. Eutrophication may be accelerated by many human activities."

As indicated, the natural process is normally slow. However, the process is accelerated through human carelessness and ignorance. Environmental sustainability, health, and quality of life are all affected if measures are not taken to ensure a healthy trophic state in each surface water body. Further complicating the situation are the problems stemming from stormwater runoff and excessive use of fertilizers and pesticides. This concern not only relates to activities around the shorelines, but throughout entire drainage basins. It is obvious that activities within Waterford will affect others well beyond its municipal boundaries. Conversely, activities which occur in surrounding areas definitely impact the Township. As one considers these statements, the problems are far more complex and interrelated than one would think. Water pollution is most often related to industries, such as petroleum and toxic spills, which we hear about in the news. Unfortunately, significant degradation is occurring by well-meaning, but uninformed, residents and business persons who continue to pursue established procedures of past years. In many cases, these practices are promoted since the activities are not prohibited or adequately controlled due to lack of proper understanding, apathy and pressures from different interest groups. A review of major activities more frequently involved in detrimental impacts is as follows:

- Preoccupation with producing the greenest, weed-free lawn. Fertilizer chemicals are not only migrating downward to our aquifers, but running off to County drains, streams and lakes. What makes for green grass makes for green water.
- Application of pesticides represent another problem to our waters for most of the same problems noted above. In addition, application of pesticides to eliminate unwanted water-based plants and bugs disrupts the fragile ecological system involving plants, micro-organisms and oxygen which when disrupted pushes it into a less desirable trophic classification and hastens the death of the waterbody.
- Careless use of septic tanks, dry wells, and other underground drainage and/or disposal fields near surface water.
- Poorly managed and designed stormwater drainage systems which enable runoff to collect fertilizers, pesticides, petroleum products, road salts, animal wastes, and other nutrients which stimulate growth, and deposit these contaminants directly into surface water bodies.
- Unregulated recreational water activities, particularly those involving motorized vehicles. Motorized watercraft tend to incidentally discharge fuels and oil when fueling or through bilge pumps. Unfortunately, some waterfront and boat users, both private and public, are also careless in disposing of litter, garbage, cans and bottles. More intensive concentrations of people and boats simply increase the pressures on the water and the ability of the ecosystem to combat and tolerate the total usage.
- Control of excess water plant material through chemical application. Chemicals represent potential hazards to people, animals and plants.

A close interrelationship between surface water and groundwater indicates that the quality of surface waters reflects future concerns for the potability of Waterford's water supply. Discharges to ground water are not easily cleansed and filtered before entering aquifers. This potential hazard becomes even more real as the complexities and quantities of discharges increase. Soils have limited retaining capacity, especially as accumulative effects are experienced. Contaminated waterbodies and aquifers represent severe problems, which are many times not easily corrected by natural or artificial regenerative processes.

One of the most serious problems resulting from groundwater contamination is that it pollutes the Township's water supply. Presently, Waterford Township's water supply is obtained from 15 wells situated at 12 different locations throughout the Township. These sites vary from approximately one to three acres in size. Well depths are variable, but most are in the 200 to 300-foot range; however, one is only 58 feet deep. This places well intake screens below most private wells and below various confining clay and rock stratum, which assists in insulating and protecting the aquifers. Hazardous materials must not be introduced within 200 feet of a wellhead area, and that distance may be increased depending upon more specific site area conditions. During the evaluation of any hazardous material use, its particular characteristics must be considered in terms of its relative risks, topographic, soil, nature of surrounding development, and preventive measures necessary if an accidental spill occurs.

In order for Waterford's water quality to be maintained and improved, measures must be relentlessly pursued to ensure that all threats to both surface water and groundwater are drastically reduced, if not eliminated. Water quality protection requires the active use of a much broader array of measures than might be envisioned. These measures range from the general to the specific. In terms of general measures, citizen awareness programs are vitally important. Information dissemination and education programs can assist citizens in understanding the critical importance to overall water quality by reducing the quantity and nature of materials disposed of or applied to our lands. Citizen awareness can also promote a better understanding of the total effects of fertilizing and pesticide programs through an ongoing series of news releases, cable and web page announcements, tax and water bill inserts, and school education programs. Efforts could also be undertaken to inform and educate citizens on the ways to manage shoreline properties to protect water quality. It is also essential to maintain and improve an identification system to recognize materials posing potential threats to our ground water if accidental spills occur. Effective site planning, zoning, building, and engineering requirements provide the most efficient method for obtaining listings of materials to be stored and/or utilized on a property. This listing must then be checked against indices of dangerous materials. Any hazardous elements identified must then be evaluated to ensure that the quantity to be utilized or stored will not present an environmental hazard.

Another measure that involves both citizen awareness and participation is the establishment and use of lake improvement boards to monitor lake water quality. These boards are authorized under the Lake Improvement Act (Part 309 of Act 451 of 1994) and consist of residents of property on the lake governed by the lake board, local community members, a representative from the Township Board, a representative from the Oakland County Drain Commissioner's Office, a representative from the Michigan Department of Environmental Quality (MDEQ), and the County Commissioner representing the county commission district in which the lake is located. The function of the lake board is to address relevant lake improvement issues, including the oversight of aquatic weed control programs, nuisance control, and other educational activities. Currently there are seven lake improvement boards

established in Waterford Township to monitor events on Huntoon Lake, Pontiac Lake, Rainbow Lake, Schoolhouse Lake, Scott Lake, Watkins Lake, and Lake Oakland.

Measures to protect the areas surrounding the wells that serve the Township's water supply must remain an implementation priority. The Township through its Department of Public Works (DPW) has actively maintained wellhead protection as a top priority. The Township currently has an MDEQ-approved Well Head Protection Plan (WHPP). The WHPP currently contains 10 MDEQ-approved Well Head Protection Areas (WHPA). These areas define the boundaries of the 10-year zone of capture for a specific wellhead. The WHPAs are identical to the 10-year well capture zones. If there were a contaminant released at the edge of the boundary, it would take approximately 10 years for it to reach the wellhead, if untreated. As a result of the WHPAs, if contamination is discovered, an action plan can be developed to resolve the problem before the wellhead becomes contaminated.

The Environmental Protection Agency (EPA) and the MDEQ require all municipalities to report the quality of drinking water for evidence of copper, lead, arsenic, coliform, barium, selenium, nitrate, chloride, fluoride and trihalomethanes contaminants to determine if the Maximum Contaminant Level (MCL) level is exceeded. If a particular MCL, or Action Level (AL), is exceeded, additional treatment or other action may be required. The DPW conducts an aggressive monitoring program. As a result, Waterford Township's water quality is exceptional, and complies with all parameters monitored by the MDEQ.

Additionally, all lakes in the United States are monitored for water quality issues in accordance with the U.S. Clean Water Act. Therefore, the MDEQ conducts an annual review and submits a report to the U.S. Environmental Protection Agency (USEPA) for review and approval. The purpose of the USEPA reporting requirement is to identify water bodies that are not attaining the established water quality standards as well as to detect threatened water bodies, which are those presently meeting the standards but expected to exceed acceptable contaminant levels and related health risks in the near future. In addition, the USEPA reporting requirement is intended to establish a priority ranking for cleanup efforts of water bodies that do not meet the water quality standards so that all water bodies meet the standards within the next 13 years. Currently, there are only two water bodies in Waterford that are included in the MDEQ annual report, Cass Lake and Maceday Lake, which exceed the acceptable contaminant levels. While these two lakes show evidence of exceeding the minimum standard for mercury in each lake's bottom, the State has concluded that the issue is a lower priority, targeting State attainment of the standards in 2011.

Efforts to control and manage stormwater runoff and drainage must be included as measures for an effective water quality control program. Since surface water runoff involves both local and watershed-wide considerations, the most effective measures will be those that incorporate an area-wide, intergovernmental approach. The Township has been an active participant, along with some of its neighboring communities that lay within the same Clinton River subwatershed, in preparing all of the documents necessary to apply for the storm water permit required under the USEPA Phase II Storm Water Rule, which is administered by the MDEQ. The Township anticipates submitting its permit application before the 2003 deadline and working to implement the components of the permit once approved by MDEQ, including a comprehensive study of the Township's stormwater drainage network and capacity.

Local efforts would also need to focus on maintaining requirements for the establishment of green space setback adjacent to shorelines as another measure to manage stormwater runoff. Another effective measure is to continue enforcing requirements for stormwater discharge through settling basins, as opposed to direct discharge. The size and design requirements would be contingent upon the volume and character of the

runoff involved. Hazardous materials would require greater safeguards. Standards would involve both zoning and engineering requirements. It is also imperative that County Drain Commission facilities and roadway drains of the County and State roads be involved in revised design criteria. This would commence with new projects and eventually undertake corrective actions on existing drains in a prioritized order. Property owners need to get involved in managing runoff to minimize general runoff of dirt, yard cuttings, and animal wastes from lots.

A comprehensive analysis of the short and long-term effects of chemical applications to water should be undertaken by the Township as a water quality measure. The analysis should measure dilution, dispersion, and distribution of chemicals due to drifting and current flows, as well as the effect on the untreated portions of water bodies and connecting waterways. Water and bottom samples should be taken from waterbodies known to be treated over the years and compared with samples taken from comparable untreated bodies. The requirements for chemical treatments should be tightened up and the requirements for public notification expanded. Under the Michigan doctrine of "polluters pay," any person, agency or organization creating a detrimental residual effect due to the chemical treatment of water should be held financially responsible for its neutralization.

Continued monitoring of the remaining septic tank and field disposal systems in the Township is another effective water quality measure. It is important that these systems avoid leaching out to the ground surface and subsequently run off to surface drainageways. Monitoring can also assist in determining special problems, troublesome wastes, establish reasonable and desirable disposal field conditions and requirements, enforce reserve or backup field requirements, as well as setback and isolation requirements.

An educational program informing residents on ways to participate in water activities from boating to swimming in ways that minimize negative impacts on water quality. Competing forces for such activities as power boating, fishing, sailing, and canoeing may ultimately require specific limits on boat operation, hours of operation to ensure water quality. Such regulations should assist in reducing pressures on the lake ecosystem. Coordinated efforts between local, county, and state agencies must be undertaken to measure and assess the needs of various users versus environmental considerations.

The creation of new shallow water lakes, ponds or canals should be prohibited since they only foster weed growth, requests for chemical applications, and potential adverse impacts to a wider area.

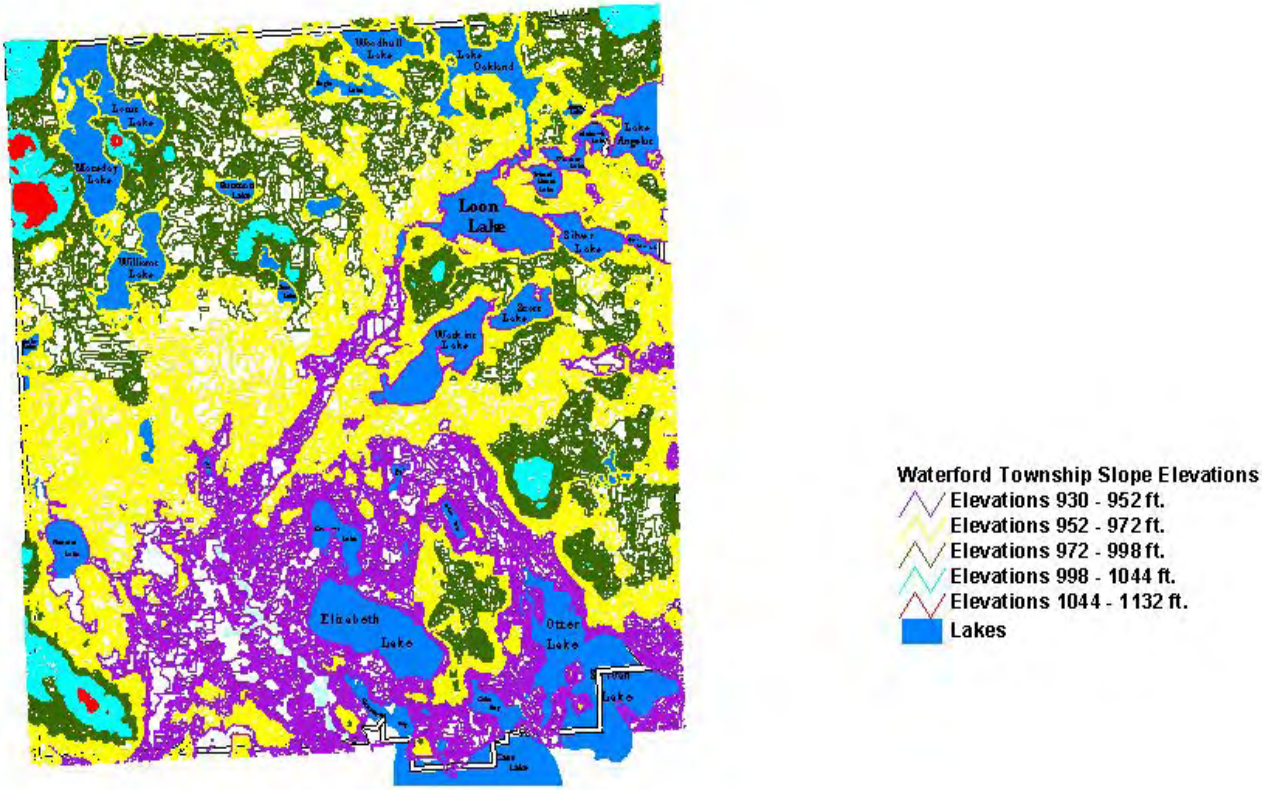
In short, a multi-faceted approach to water quality protection is needed, which will incorporate such measures as wellhead protection, groundwater protection, surface water protection, planning and zoning restrictions and regulations, building and engineering requirements, and a comprehensive public education program. For these efforts to be effective, active cooperation among the various Township departments and between other governmental entities and independent agencies must continue and remain a top priority.

Topography

Waterford Township is located in the Jackson Interlobate physiographic region of southeastern Michigan. The Jackson Interlobate region was created as a result of glacial activity 10,000 to 12,000 years ago, and is made up of coarse-textured end moraine, outwash and ice contact typography. The Interlobate region contains broad expanses of outwash sands that surround sandy and gravely end moraines and ground moraines. The topography of Waterford Township is generally low rolling hills with variations on a minor scale, consistent with outwash channels and ground moraine ridge formations of zero to six percent slopes, which are portrayed in Map A-10. Drainage conditions on the outwash areas in this region are highly variable from excessively drained to very poorly drained. Most of this district was surveyed by State land surveyors between 1816 and 1825. Most of the land was cleared for agriculture by the mid-nineteenth century. (Michigan's Native Landscape, Michigan Natural Features Inventory, 1995).

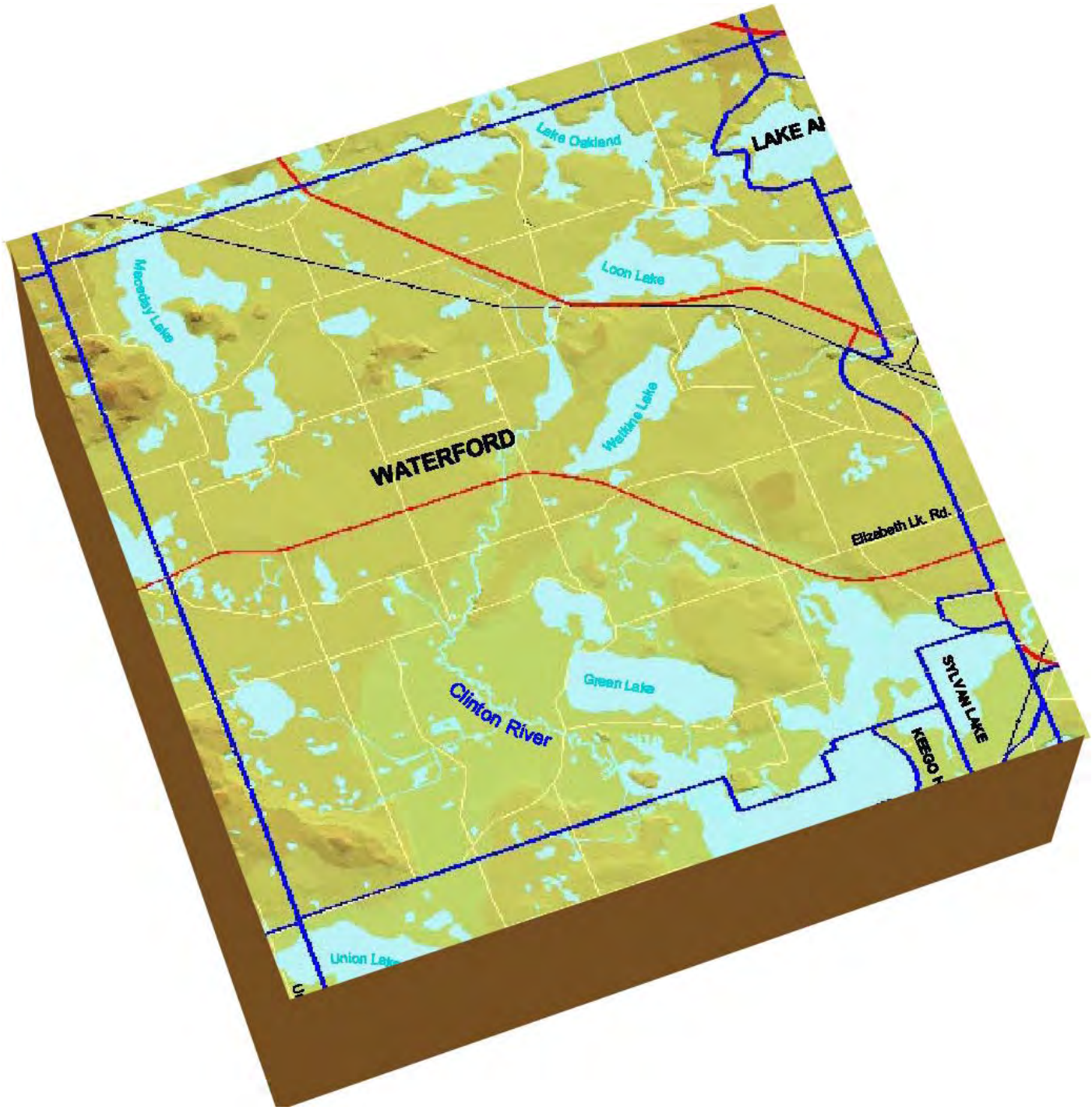
Waterford's natural land elevations range between 930 feet and 1,122 feet above sea level, which are depicted on Map A-9. One man-made feature, a former landfill in the northwest quarter section of the Township, is the highest elevation point at 1,132 feet above sea level. Elevation changes are generally gradual, with the direction of flow from the northwest to the central south and southeast.

Map A-9
Slope Elevations in Waterford Township



Source: Waterford Township GIS

Map A-10
Topographical View of Waterford Township



Source: Oakland County Planning and Economic Development Services

Soils

An understanding of soil characteristics is essential to the development of a community in a manner that minimizes construction costs, risks to public health, and environmental impact. There are four soil associations, or groups of soils, in Waterford Township. The following soils information, taken from the **Soil Survey of Oakland County, Michigan** describes the broad characteristics of the Township's soils. The general soil map shows broad areas that have a distinctive pattern of soils, relief, and drainage. Each map unit on the general soil map is a unique natural landscape. Typically, a map unit consists of one or more major soils and some minor soils. It is named for the major soils. The soils making up one unit can occur in other units but in a different pattern.

The general soil map can be used to compare the suitability of large areas for general land uses. Areas of suitable soils can be identified on the map. Likewise, areas where the soils are not suitable can be identified.

Because of it small scale, the map is not suitable for planning the management of a farm or field or for selecting a site for a road or building or other structure. The soils in any one map unit differ from place to place in slope, depth, drainage, and other characteristics that affect management.

Fox-Oshtemo-Houghton

Nearly level to hilly, well drained and very poorly drained loamy, sandy, and mucky soils - on outwash plains, moraines, and beach ridges and in bogs.

This map unit makes up about 10 percent of the county. It is about 50 percent Fox soils, 30 percent Oshtemo soils, 12 percent Houghton soils, and 8 percent soils of minor extent.

The Fox and Oshtemo soils are on knolls, ridges, and side slopes along drainage ways, streams, lakes, and depressions. The Houghton soils are in depressions and drainage ways.

The Fox soils are nearly level to hilly and are well drained. The surface layer is very dark grayish brown sandy loam about 9 inches thick. The subsurface layer is brown gravelly sandy loam about 7 Inches thick. The subsoil is cars brown, firm gravelly sandy clay loam about 14 inches thick. The substratum to a depth of 60 inches is brown, calcareous gravelly sand.

The Oshtemo soils are nearly level to hilly and are well drained. The surface layer is dark brown loamy sand about 7 inches thick. The subsurface layer is yellowish brown loamy sand about 11 inches thick. The subsoil is about 37 inches thick. In the upper part it is reddish brown, friable sandy loam, and in the lower part it is yellowish brown, very friable loamy sand. The substratum to a depth of about 60 inches is pale brown, calcareous stratified sand and gravelly sand.

The Houghton soils are nearly level and are very poorly drained. The surface layer is black muck about 8 inches thick. The underlying layers to a depth of 60 inches are black muck.

Oshtemo-Spinks-Houghton

Nearly level to steep, well drained and very poorly drained sandy and mucky soils; on outwash plains, beach ridges, and moraines and in bogs.

This map unit makes up about 12 percent of the county. It is about 40 percent Oshtemo soils, 30 percent Spinks soils, 14 percent Houghton soils, and 16 percent soils of minor extent.

The Oshtemo and Spinks soils are on plains, knolls, and ridges and on side slopes along drainage ways, lakes, and swamps. The Houghton soils are in depressions and drainage ways.

The Oshtemo soils are nearly level to steep and are well drained. They have a surface layer of dark brown loamy sand about 7 inches thick. The subsurface layer is yellowish brown loamy sand about 11 inches thick. The subsoil is about 37 inches thick. In the upper part it is reddish brown, friable sandy loam; and in the lower part it is yellowish, brown, very friable loamy sand. The substratum to a depth of 60 inches is pale brown, calcareous, stratified sand and gravelly sand.

The Spinks soils are nearly level to steep and well drained. They have a surface layer of dark brown loamy sand about 9 inches thick. The subsurface layer is pale brown sand about 17 inches thick. The next layer to a depth of about 60 inches consists of brown, loose sand and thin strata of reddish brown, very friable loamy sand.

The Houghton soils are nearly level and are very poorly drained. They have a surface layer of black muck about 8 inches thick. The underlying layers to a depth of 60 inches are black muck.

Urban Land-Marlette-Capac

Urban land and nearly level to hilly, well drained to somewhat poorly drained loamy soils, on till plains and moraines.

This map unit makes up about 18 percent of the county. It is about 60 percent Urban Land soils, 20 percent Marlette soils, 12 percent Capac soils, and 8 percent soils of minor extent.

Urban Land generally is nearly level, but in some places it is gently sloping to sloping. It is covered by streets, sidewalks, driveways, parking lots, houses, and other structures that so obscure or alter the soils that identification of the soils is not possible.

The Marlette soils are on plains, knolls, ridges, and side slopes and are nearly level to hilly. These soils are well drained or moderately well drained. The surface layer is dark grayish brown sandy loam about 8 inches thick. The firm subsoil, which is about 23 inches thick, is dark yellowish brown clay loam in the upper part and yellowish brown, mottled clay loam in the lower part. The substratum to a depth of about 60 inches is yellowish brown and pale brown, mottled, calcareous loam.

The Capac soils are in broad areas that have some low knolls and ridges. They are nearly level or gently sloping. These soils are somewhat poorly drained. The surface layer is very dark grayish brown sandy loam about 8 inches thick. The firm subsoil, which is about 24 inches thick, is brown and grayish brown, mottled clay loam. The substratum to a depth of about 60 inches is pale brown, mottled, calcareous loam.

Urban Land-Spinks-Oshtemo

Urban land and nearly level to rolling, well drained sandy soils, on outwash plains, beach ridges, and moraines.

This map unit makes up about 13 percent of the county. It is about 60 percent Urban Land, 20 percent Spinks soils, 10 percent Oshtemo soils, and 10 percent soils of minor extent.

The Oshtemo and Spinks soils are on broad plains, on knolls and ridges, and on side slopes along drainage ways, lakes, and swamps.

Urban land is covered by streets, sidewalks, driveways, parking lots, houses, and other structures that so obscure or alter the soils that identification of the soils is not feasible. Urban land is nearly level to sloping.

The well drained Spinks soils are nearly level to rolling. The surface layer is dark brown loamy sand about 9 inches thick. The subsurface layer is pale brown.

Woodlands

Citizen interest and concern for the preservation of the Township's tree and woodland resources has been a core component of the Township's environmental protection priorities. As Waterford developed into a more densely populated and urbanized community, there was a growing appreciation of the contribution made by trees and woodlands to the overall quality of life in the Township. The following quality of life values are secured or enhanced through the preservation and care of trees and woodlands.

Energy Conservation

Trees moderate climatic extremes by providing shade and transpiring water, assisting in cooling nearby homes, buildings, parking areas, roads, and walkways in the summer months, while protecting against harsh winds, snow and ice in winter.

Environmental Quality

Trees are an integral part of achieving air quality by using carbon dioxide and emitting oxygen in their own growth process. They filter the air by absorbing pollutants. They absorb sound and act as buffers between land uses. They help recharge groundwater by holding precipitation, giving it time to percolate into the ground. The woodland floor also helps to filter the percolating water.

Erosion Control

Preserving trees and woodland areas stabilizes and holds soils in place, protecting watersheds from erosion and excessive sedimentation by reducing the impact of rain and other sources of water runoff on soil.

Economic

Trees are a source of the timber necessary for building materials as well as a source of agricultural products.

Wildlife Habitat

Trees create a varied and rich habitat for plant and animal life. Many trees provide food for woodland life. Trees also offer protection against predators. When connected with other woodlands or fence rows, they provide wildlife corridors for animals and birds, which make a significant contribution toward natural insect control.

Aesthetic Values

The natural beauty and utility of trees has sparked citizen desire to insist that their quality of life and property values depends in part on the number and variety of trees on their property, in their neighborhood, and throughout their community. They are a source of aesthetic

enjoyment and provide areas for recreation.

Trees come in a variety of evergreen and deciduous species. In addition to general environmental assets, some trees also have commercial value. However, there are some trees which have undesirable characteristics such as brittleness, exceptionally messy droppings and/or leaves, and roots which penetrate sewers, foundations, roadways, and sidewalks.

A balanced forestry program in any community deals with preservation, maintenance and planting. Trees, as with other living elements, have varying life spans; those spans can be shortened or prolonged with human intervention. In some instances, the cutting of trees can actually make a wooded area more viable and extend its life cycle. Trees growing in an unmanaged environment are fighting a constant battle for survival. It is not uncommon for trees in such situations to be punky and hollow on the inside and they continue standing due to the protection afforded by other trees. Selective cutting improves the vitality of individual trees as well as the balance of species within a woods.

It must also be recognized that Waterford is located within a more urbanized ring of development in the metropolitan area. Land uses are primarily serviced by public sewer and water services. Lot sizes are of an intermediate density. In combination, these characteristics mean trees and vegetation will be lost in any development, even with the utmost of care. Additionally, the growth in Waterford's population and development densities have resulted in a smaller number of fragmented woodland areas, as shown in Map A-11. This map identifies significant tree stands, consisting predominantly of hardwoods, evergreens, or lowland brush. Many of the significant tree stands are found in conjunction with other natural features such as wetlands and the Clinton River. The Pontiac Lake State Recreation Area and the Township's Elizabeth Lake Woods Park contain a number of acres of heavily wooded land.

The preservation and promotion of trees within the Township should follow a balanced and reasonable approach. Basic preservation requirements that are reasonable and take into consideration both the stage of Waterford's existing development and the environmental sensitivity of specific undeveloped sites, should continue to be set forth within a Township woodlands ordinance. While it will continue to be necessary to remove most trees within utility and roadway rights-of-way, the Township plan review requirements should strongly encourage design arrangements protective of sensitive environmental features. The forthcoming update of Zoning Ordinance standards should include evaluations of existing provisions which promote flexibility in design techniques and the preservation of sensitive areas. New and innovative approaches must also be considered and refinements prepared which accomplish the basic goal of environmental enhancement. Ordinance revisions should not be structured to prevent development, but rather to permit development while protecting trees that might otherwise have been removed, and through careful review of site plans emphasizing the replacement of trees that are removed. Improvement standards should also be refined to require and promote increased green space under site plan improvement proposals. Trees and landscaping should be located on sites to break up larger expanses of paving, soften building lines, assist in breaking up noises, and removing carbons from the air. Trees and plantings will also afford shade and wind protection to structures, thereby improving energy considerations. Expanded tree planting requirements should be considered for all forms of residential structures. This would include single-family homes. These provisions would relate to zoning, building, engineering, and residential development requirements.

Street tree planting programs should be encouraged as part of an overall commercial corridor plan. These programs require coordination with applicable county and state

agencies. Improvements in the visual impressions created by these plantings is important to the Township and the pride of its residents. Funding sources should be sought which include governmental, non-profit, and private sources in addition to Township sources. The establishment of a tree fund to finance tree plantings through developer contributions should also be considered.

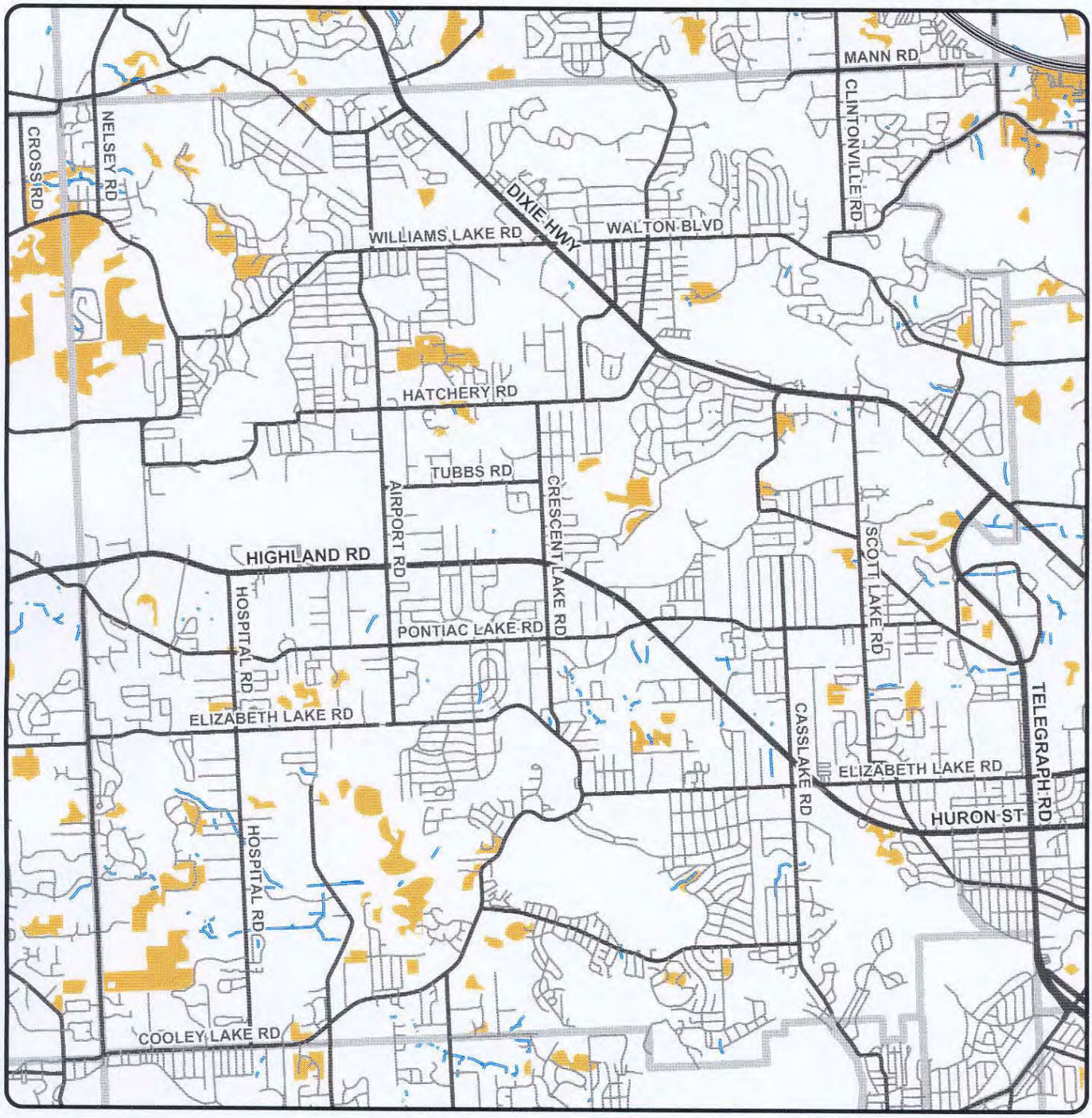
Natural Features

The identification of natural features that exist in a community is an important component of the existing conditions analysis. With such information, the Township can make informed decisions regarding the preservation and protection of the community's natural resources.

The Michigan Natural Features Inventory (MNFI) was contracted by Oakland County to survey areas of important natural features. MNFI maintains a continuously updated information base, the only comprehensive, single source of data on Michigan's endangered, threatened, or special concern plant and animal species, natural communities, and other natural features. MNFI has responsibility for inventorying and tracking the State's rarest species and exceptional examples of the whole array of natural communities. MNFI also provides information to resource managers for many types of permit applications regarding these elements of diversity. The areas identified by MNFI are shown in Map A-12.

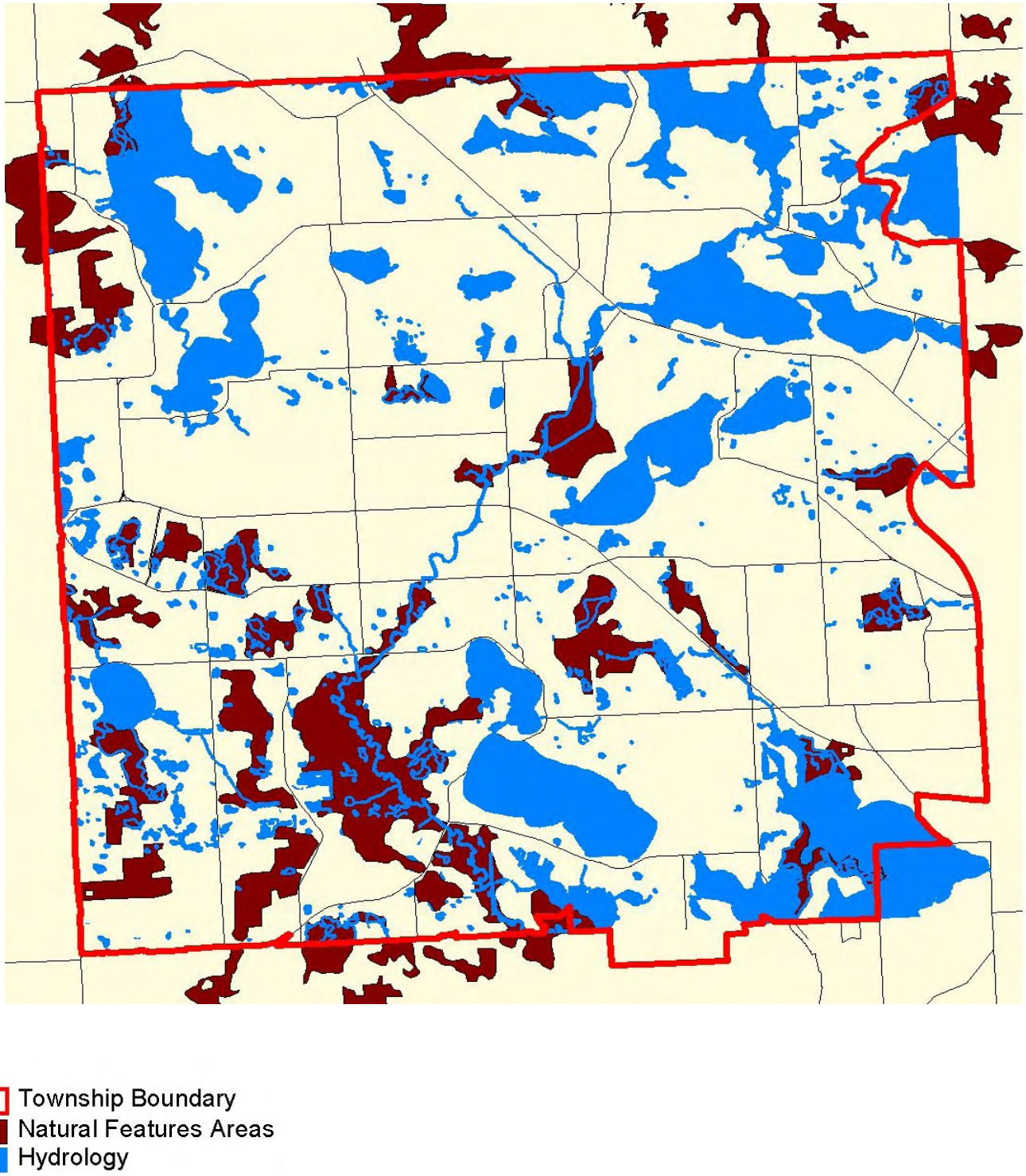
Natural features must be taken into account before development takes place. Besides cutting costs in the long run, utilizing existing environmental conditions offers many advantages to the Township in terms of aesthetic beauty. To begin with, planning residential developments that conform to existing topography results in more individualized and attractive neighborhoods. Conversely, leveling land merely to facilitate construction leads to sterile, identical and dull living areas. Furthermore, by preserving the original topography, natural drainage lines may be utilized, thereby lessening utility expenses and slowing stormwater runoff. As mentioned earlier, the Township would also profit by protecting existing trees during development, rather than planting new ones later. However, saving money is not the only reason for preserving vegetation whenever possible. Natural foliage helps purify the air, can act as a buffer between incompatible land uses, nullifies noise, and adds beauty to the community.

Map A-11
Major Woodland Areas in Waterford Township



Source: Oakland County Planning and Economic Development Services

Map A-12
Natural Features Areas in Waterford Township



Source: Michigan Natural Features Inventory, Oakland County Planning and Economic Development Services

Waste Processing

Another vitally important and complex environmental issue is that of waste collection and disposal. The high standard of living enjoyed by most Americans today is contributing to a monumental task in terms of waste disposal. Problems become even more complex when you factor in the volume of non-returnable and nonbiodegradable containers. Further complications are created by the indiscriminate disposal of various chemical compounds, aerosol propellant cans, paints, batteries, pesticides, lawn clippings, disposable diapers, newspapers, along with the normal food scraps. Since much of the waste will not degrade or rot, disposal in the normal landfill requires such large land areas in convenient locations that space is becoming a serious problem. An even more critical problem is that of potential pollution to the ground water and area by leaking chemicals and wastes and unpredictable combinations thereof.

All government entities are faced with a very serious dilemma regarding waste disposal. In combination, events have documented the laxity in standards, procedures, and attitudes on the part of numerous federal, state, and county agencies. It is a situation which, in part, reflects the lack of public awareness and the need for resource separation. Some people continue to resent the bottle return bill since they believe it inconveniences them, but the cost of an unsightly littered landscape was probably not included in their opinion-making process. Resource separation is an extension and expansion of the bottle bill concept, requiring the separation of paper, glass, plastic, and hazardous products from garbage. While this too could be considered an inconvenience, the land use implications of ever expanding landfills near one's backyard needs to seriously contemplated before assuming an inconvenience. Another form of resource separation is that of yard waste. State of Michigan restrictions prohibit dumping yard waste in landfills and Leaf-burning is prohibited unless a community passes a specific exemption from this requirement.

Even with recycling, composting and resource separation, the problems with landfills and incinerators will not be eliminated. Increased attention must be focused upon the adoption of more comprehensive siting criteria for all refuse processing facilities, with individual attention given to each site and its specific hydrogeological conditions, development patterns, and potentials in the area. Proper and adequate surface and subsurface monitoring devices must be provided and maintained, together with governmental or third-party sampling and analyses. Prior testing should establish a base of appropriate ambient measurements for subsequent comparisons. More attention must be focused upon the airborne transport of particulates from any disposal operation. The drifting of airborne contaminants becomes an even greater concern in Waterford where so much water may be adversely affected.

Over the years, Waterford has taken a leadership role in providing recycling and composting facilities services. Continuation of local educational efforts must continue. Currently, the Township does not provide township-wide waste or recycling collection services. The Township had proposed such a service in 1998 but the proposal was voted down in 1998. Township citizens may wish to reconsider this proposal to minimize environmental impact through the reduction of garbage truck traffic in neighborhoods and to strengthen Township recycling efforts. The Township should also consider stronger efforts to reduce the accumulation of household hazardous wastes to reduce the risk of household fires, accidental poisonings, and groundwater contamination. The Township may want to consider establishing hazardous waste drop-off days and contract with a qualified waste removal firm to safely dispose of such materials.

Environmental Resources Summary

Because of Waterford's many environmental assets, the discussion of environmental issues requires a great deal of ongoing public education to provide a more factual understanding of the environment and the Township's ecosystems. Many of the past assumptions regarding invincibility of "mother nature" and our earth have been faulty and must be discarded if a high quality, safe, and healthy environment is to be maintained.

Change is necessary in our lifestyles, which may not be quite as convenient as in the past. The same holds true for business and industry. There will also be some increase in the cost of living to provide for environmental health and safety. Concerns for fertilizers, and hazardous materials must continue to be reflected in the Township's land use requirements since these materials are by-products of permitted land uses and densities and, thereby, may impact adjoining land and water areas. The site plan review process must continue to be modified to reflect and coordinate the broader range of issues and concerns being raised.

It is far from easy to establish all of the necessary standards and procedures which will be involved in an effective environmental protection program. Additional and new research and analysis will be necessary in all fields related to the environment. Awareness that environmental issues intersect and affect private property rights must be continuously maintained. Property owners cannot arbitrarily be denied reasonable use of their property to achieve excessive and/or unrealistic environmental protection goals. Developing and maintaining a current environmental database will aid in the assessment of properties and provide for more definitive regulations that reflect and promote the public health, safety, and welfare.

As a result of continued development and population growth within the Township, there are continuing pressures on the natural environment. The following conclusions can be derived from the analyses in this section:

- The Township has a vast natural resource system of lakes, the Clinton River, wetlands, woodlands, rolling topography, and natural features, that must be preserved, maintained, and improved.
- Water quality of the Township's many water resources must be preserved, maintained, and improved.
- The Township contains hundreds of acres of wetlands, mostly adjacent to lakes or streams, all of which play an important role in stormwater management, the control of water quality, and the provision for critical wildlife habitat. Therefore, the type of land use in proximity to these ecosystems is critical to their preservation.
- Ground water recharge areas should be maintained in their natural state as much as possible. They are natural reservoirs for groundwater. Anything that could potentially pollute these areas should be avoided.
- Drainage ways are common in the Township. They often link various types of natural resources such as wetlands, wooded areas, and organic soils. These drainage ways should be thoroughly studied, preserved, maintained, and improved.

HISTORIC DISTRICT AND PRESERVATION

A community's historic sites and buildings are irreplaceable resources that serve to provide a tangible link to the past. These sites and buildings also provide an educational resource on the evolution of a community's early development. They are critically important as key visual elements of a community's unique character. While many sites and buildings might represent a specific architectural style or historical period, they might also have their own distinct individual characteristics and settings. Their continued use and preservation can play a major role in promoting community character and identity. These local historic sites and buildings can be seriously threatened, or lost, if there is no effective planning or protection from development and redevelopment efforts.

There are federal and state legal tools that can assist communities with efforts to preserve and protect their heritage. The National Historic Preservation Act requires each state to prepare and implement a comprehensive statewide historic preservation plan. Michigan's historic preservation plan (Local Historic Districts Act, P.A. 169) was first prepared in 1970 and then updated in 1985 and 1992 to reflect the new directions in historic preservation policy. The Michigan Register, the State Register of Historic Sites, was established under P.A. 10 of 1955, MCL 399.151. The Michigan Historical Commission, a lay body appointed by the Governor, reviews applications for the State Register and Historic Marker programs. These programs are honorary, placing no restrictions on property owners, and designation offers no tangible benefits. The Act does provide for State grants to preserve and restore certain State Register properties, but no money has been allocated for this purpose since 1980. Educating the public about federal and state historic preservation programs, and assisting local governments with developing local historic preservation programs, are other responsibilities of the State. The State also directs and conducts a statewide survey of historic properties and maintains an inventory of these properties. Through the survey program, the State coordinator provides technical assistance to communities who wish to perform a local historic survey. This inventory of historic properties is the first step towards enacting an historic preservation program.

In the mid-1970s, the Township Board appointed an Historic District Study Committee to conduct an inventory study and research into establishing an Historic District in Waterford Township. The Committee focused their attention on the Waterford Village area since it still retained much of its 19th Century character and its original boundaries, shown in Map A-13. The Committee prepared a report on their findings as well as a map with proposed historic district boundaries, shown in Map A-14, and submitted the documents to the Waterford Planning Commission and the State of Michigan Historical Commission in 1976. Due to the Committee's efforts, the Michigan Historic Commission placed the Waterford Village area on the State Register of Historical Districts. After reviewing the Committee's findings, the Planning Commission indicated that they wanted district boundaries more compact than what the Committee proposed shown in Map A-14. The recommendations of both the Committee and the Planning Commission were submitted to the Township Board for review. The Board provided each property owner within the Committee's proposed boundaries the opportunity to decide whether they wanted their property to be included in a new historic district. During early 1977, while many property owners signed in favor of being included in the district, the support was scattered, as shown by the properties highlighted in red on Map A-14. The final Waterford Village Historic District boundaries established by the Township Board in June 1977 are shown in Map A-15.

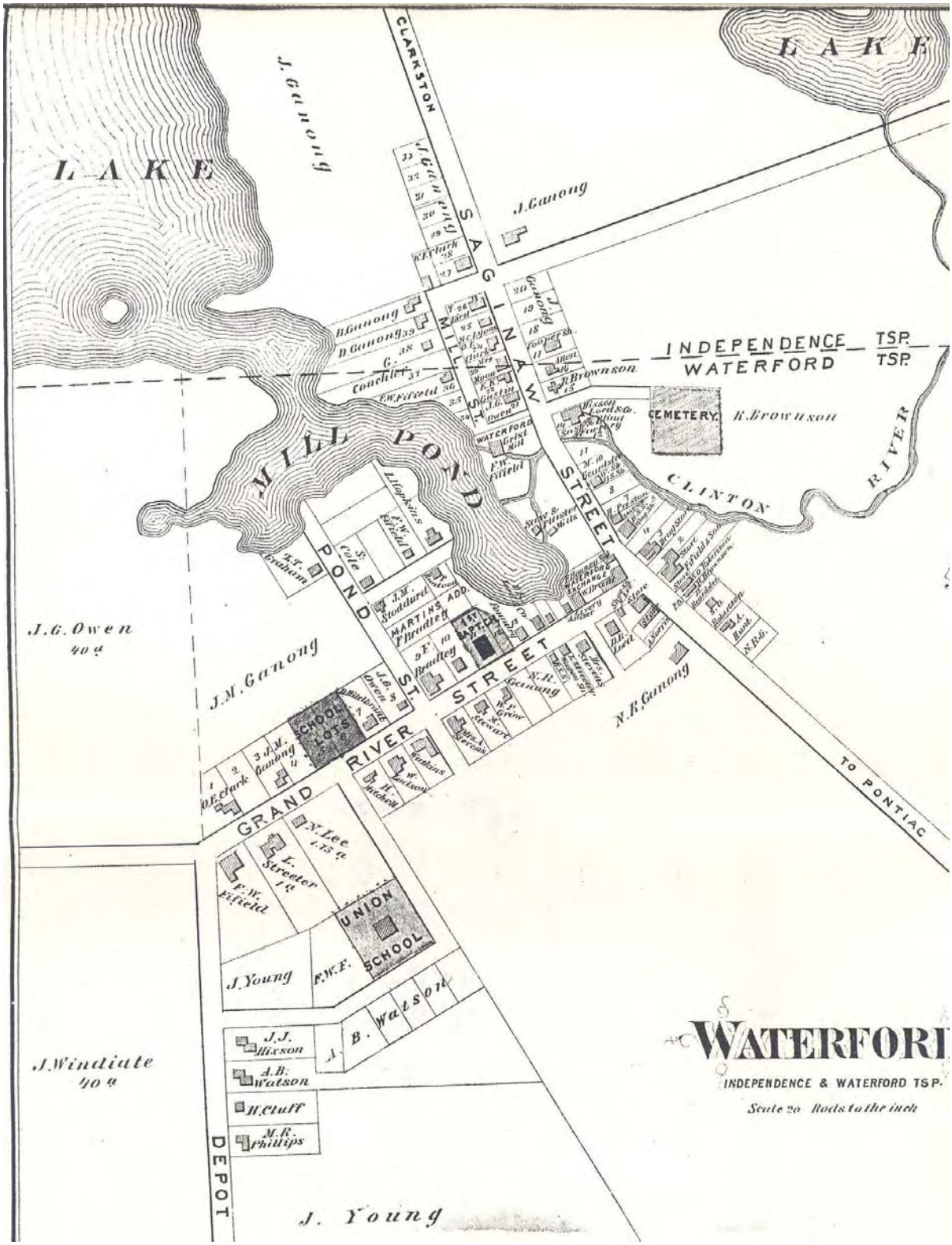
As part of the establishment of the Waterford Village Historic District, the Township Board adopted an Ordinance intended to manage and preserve the character of the District. The Ordinance also established a Historic Commission. While the Commission was active for the first few years of its existence, it was not utilized during the years 1980 and 1990. Since then some efforts have been undertaken, although with little to no funds at the Commission's disposal. Some members of the Commission during the past decade have sought to acquire funds to install an improved sidewalk network and antique decorative street lighting. The Commission has been unsuccessful in finding such funding. Neither the Ordinance that established the Historic Commission or the organization and powers of the Commission have been reviewed or revised since its inception.

There have been a few successful efforts at preserving Waterford's history. During the late 1970s, the Township used some of its federal Community Development Block Grant (CDBG) funds to purchase and restore a historic church building in the Waterford Village Historic District. For a time during the 1980s and early 1990s the building housed the offices of Waterford's Parks and Recreation Department. After the Parks and Recreation staff moved to new offices, the building has been the home of the Waterford Cultural Council. CDBG funds were also used in the late 1980s to restore an historic hatchery building located at the Drayton Plains Nature Center and used prior to the mid-1960s by the forerunner of the Michigan Department of Natural Resources. The Township's Community Planning and Development Department recently undertook a project to inventory the Township's first cemetery, where some of the Township's first non-Native American settlers are buried.

The Township also has an active Historical Society, whose headquarters are in an historic house that used to be the offices of a local Michigan Department of Natural Resources hatchery. The Historical Society's offices are now part of the Township's Hatchery Park. At this park, the Society has also relocated and restored an historic log cabin that used to be located on Dixie Highway near Andersonville Road and also an historic caboose that was acquired and donated to the Society. The Society is also beginning the construction phases of a planned historic village, which will include replicas of a general store, train depot, and several other small shops.

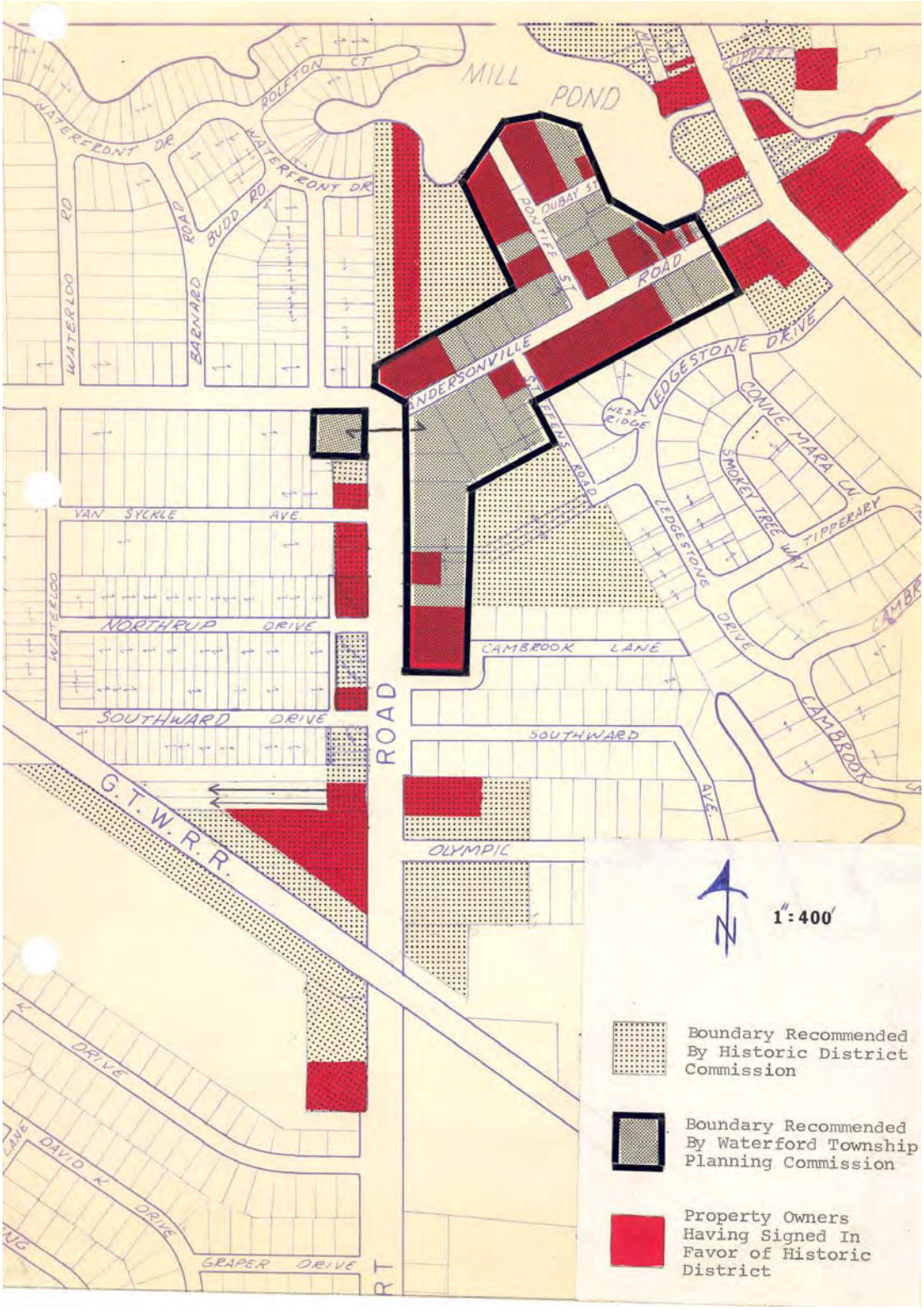
The Township has a limited few remaining culturally significant historical and architectural sites and buildings. Since these are irreplaceable resources, continuing efforts must be made to preserve and protect them so that future generations of citizens can obtain information about their community's past. Such efforts will also contribute toward providing a distinct sense of place and community identity. Local coordination and cooperation between preservation advocates, citizens, the Historical Society, the Township government, other levels of government, and non-profit agencies will be necessary to continue and expand upon these efforts.

Map A-13
Waterford Village
1872



Source: Waterford Historical Society

Map A-14
Development of Waterford Village Historic District Boundaries
1976



Source: Waterford Township Community Planning and Development Department

Map A-15
Existing Waterford Village Historic District Boundaries
2003

Source: Waterford Township GIS

EXISTING LAND USE & ZONING

The Township has experienced significant growth over the past 70 years, evolving from a farming/summer cottage community to the most populous Township in Oakland County and the third most populous Township in the State of Michigan. The growth pattern of land use distribution in the Township has remained relatively stable during the past 27 years, continuing primarily as a single-family residential community with a substantial amount of area covered by water bodies. The most significant changes have been the increase in the Single Family Residential category and the decrease in the Vacant/Agricultural category, as is shown in Table A-26 and Figure A-8. The comparative distribution of the Township's total acreage between existing land use categories during 2001 is also shown in Figure A-9. Another comparative view of land use distribution, by number of parcels used by each category, is found in Table A-27 and Figure A-10. The share of Single Family Residential use is even more pronounced when measured by the number of parcels, with 81 percent of the total parcels used for this category.

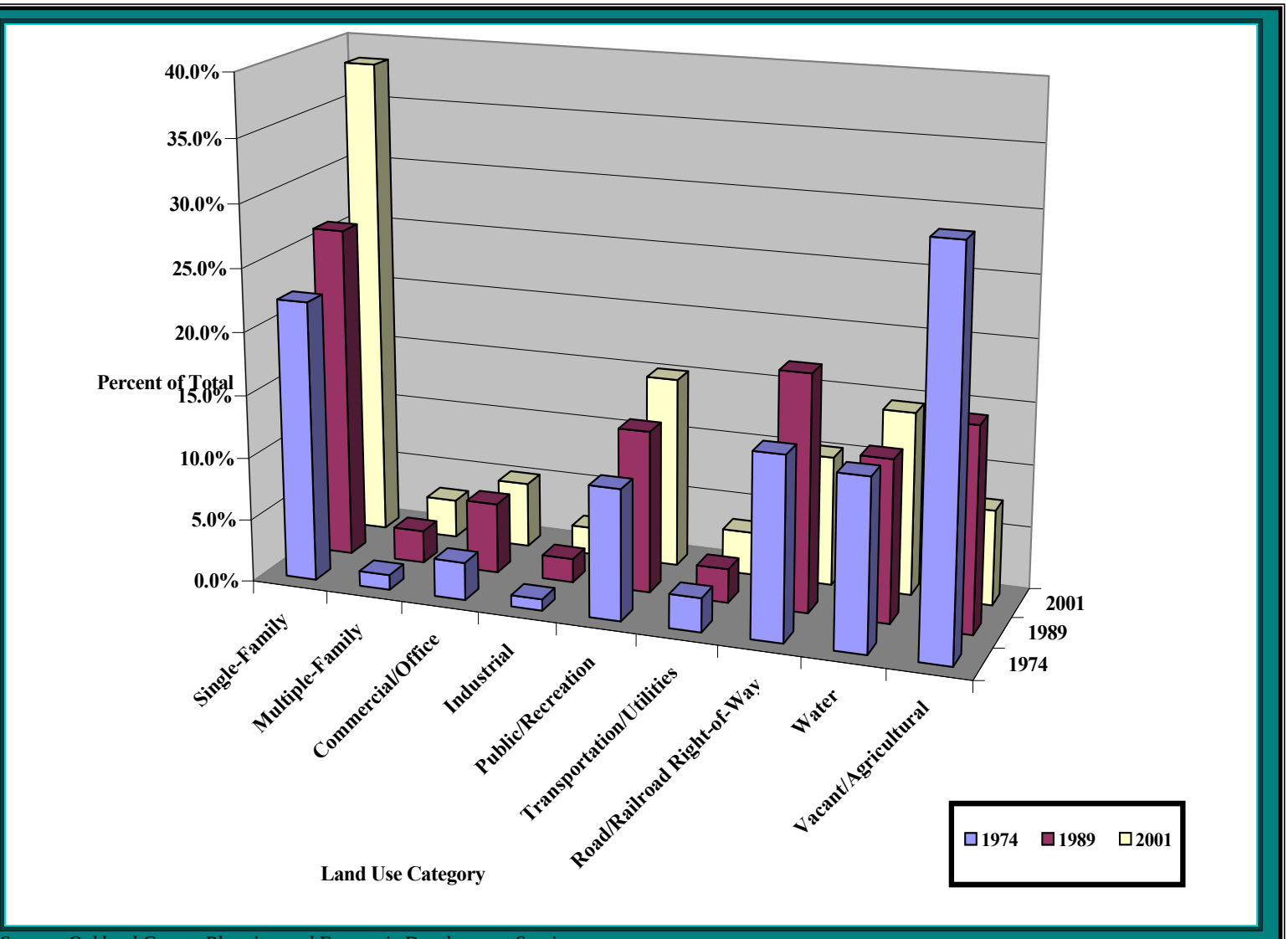
Regarding the land use type categories shown in Tables A-26 and A-27 and Figures A-8 through A-10, some categories presented in Oakland County's 2001 analysis had to be combined for a more consistent comparison with the 1974 and 1989 information taken from the 1991 Master Plan. In the 2001 analysis, there were separate categories for Multiple Family and for Mobile Home Park, while the 1974 and 1989 figures used in the 1991 Master Plan, there was only a Multiple Family category. Since the two mobile home parks in Waterford predate the 1974 figures, it can be assumed that the data reflecting the mobile home parks was included in the Multiple Family category. Therefore, the Multiple Family and Mobile Home Park categories were combined into one Multiple Family category for the purpose of this analysis. The 1974-1989 land use comparison had one category, Public/Quasi-public Conservancy, that included all public, institutional, recreation, and conservation uses. Therefore, the two categories used in the 2001 analysis, Public/Institutional and Recreation & Conservation, were merged into one category called Public/Recreation for comparisons with the 1974 and 1989 numbers. The 2001 analysis also had two separate right-of-way (ROW) categories, one for road ROW and one for railroad ROW. These were merged into one category for comparison with the one 1974-1989 category for ROW. The separate 2001 categories for Vacant and Agriculture were merged into one category to compare with the 1974-1989 Vacant/Agricultural category. The 1974-1989 category of Airport is considered the same as the 2001 category of Transportation/Utility/Communication. Finally, the comparison between the 1974, 1989, and 2001 analyses does reveal a slight difference in the gross land area measured for each of these years. In 1974 it was measured at 22,590 acres, in 1989 at 22,343 acres, and in 2001 at 22,524 acres. The difference between these numbers is less than one percent and is likely a reflection of the different methodologies used in analyzing the land use during the three time periods studied. Because the difference is statistically insignificant and does not appear to affect the general historical land use patterns, it was determined that the conclusions made from this comparison also were not affected.

Table A-26
Existing Land Use Acreage Distribution Comparison
Waterford Township
1974-2001

Land Use Type	1974		1989		2001		Percent Change 1974-2001
	Acres	Percent	Acres	Percent	Acres	Percent	
Single-Family Residential	5,030	22.3	5,890	26.4	8,652	38.4	16.1
Multi-Family Residential	262	1.2	576	2.6	682	3.1	1.9
Commercial/Office	670	3.0	1,238	5.6	1,177	5.2	2.2
Industrial	205	0.9	433	1.9	492	2.2	1.3
Public/Recreation	2,354	10.4	2,890	12.9	3,424	15.2	4.8
Transportation/Utility/ Communication	600	2.7	610	2.7	777	3.5	0.8
Road/Railroad ROW	3,287	14.5	4,200	18.8	2,325	10.3	-4.2
Water	3,080	13.6	2,890	12.9	3,283	14.6	1.0
Vacant/Agricultural	7,094	31.4	3,608	16.2	1,704	7.6	-23.8
Total Acres	22,590	100.0	22,343	100.0	22,524	100.0	

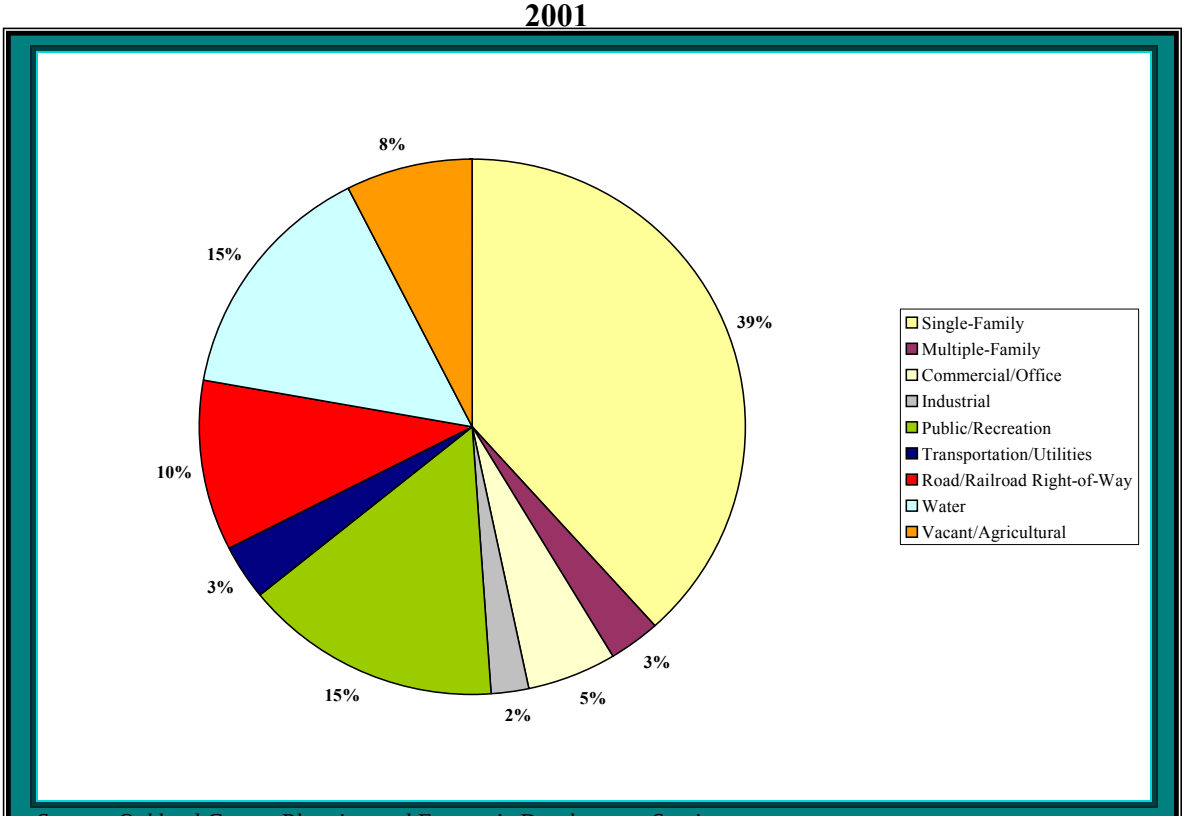
Source: Oakland County Planning and Economic Development Services

Figure A-8
Existing Land Use Acreage Percent Distribution Comparison
Waterford Township
1974-2001



Source: Oakland County Planning and Economic Development Services

Figure A-9
Existing Land Use Area Percent Distribution
Waterford Township
2001



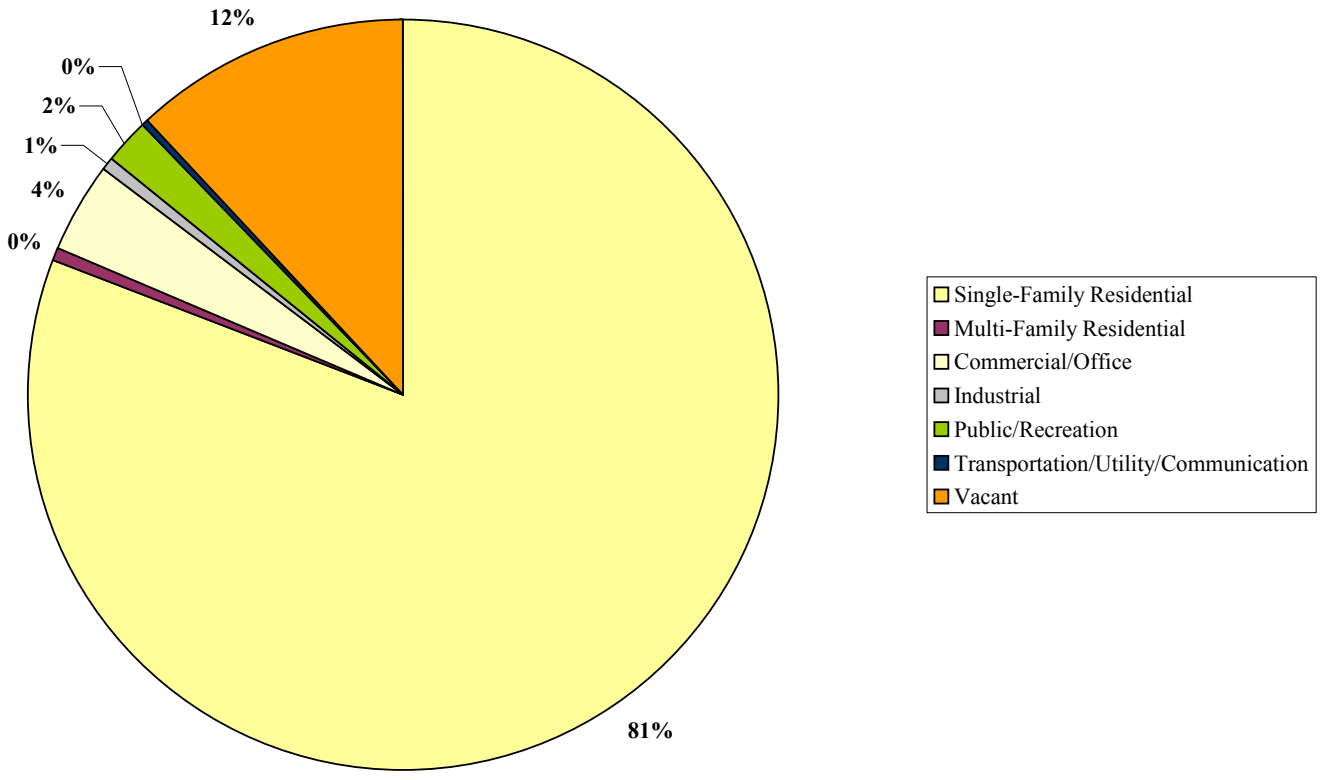
Source: Oakland County Planning and Economic Development Services

Table A-27
Existing Land Use Parcel Distribution
Waterford Township
2001

Land Use Type	2001	
	Parcels	Percent
Single-Family Residential	22,994	80.9
Multi-Family Residential	110	0.4
Commercial/Office	1,094	3.9
Industrial	132	0.5
Public/Recreation	578	2.0
Transportation/Utility/Communication	121	0.4
Road/Railroad ROW	n/a	n/a
Water	n/a	n/a
Vacant	3,385	11.9
Total Parcels	28,414	100.0

Source: Oakland County Planning and Economic Development Services
Note: Acres may not equal total due to rounding errors

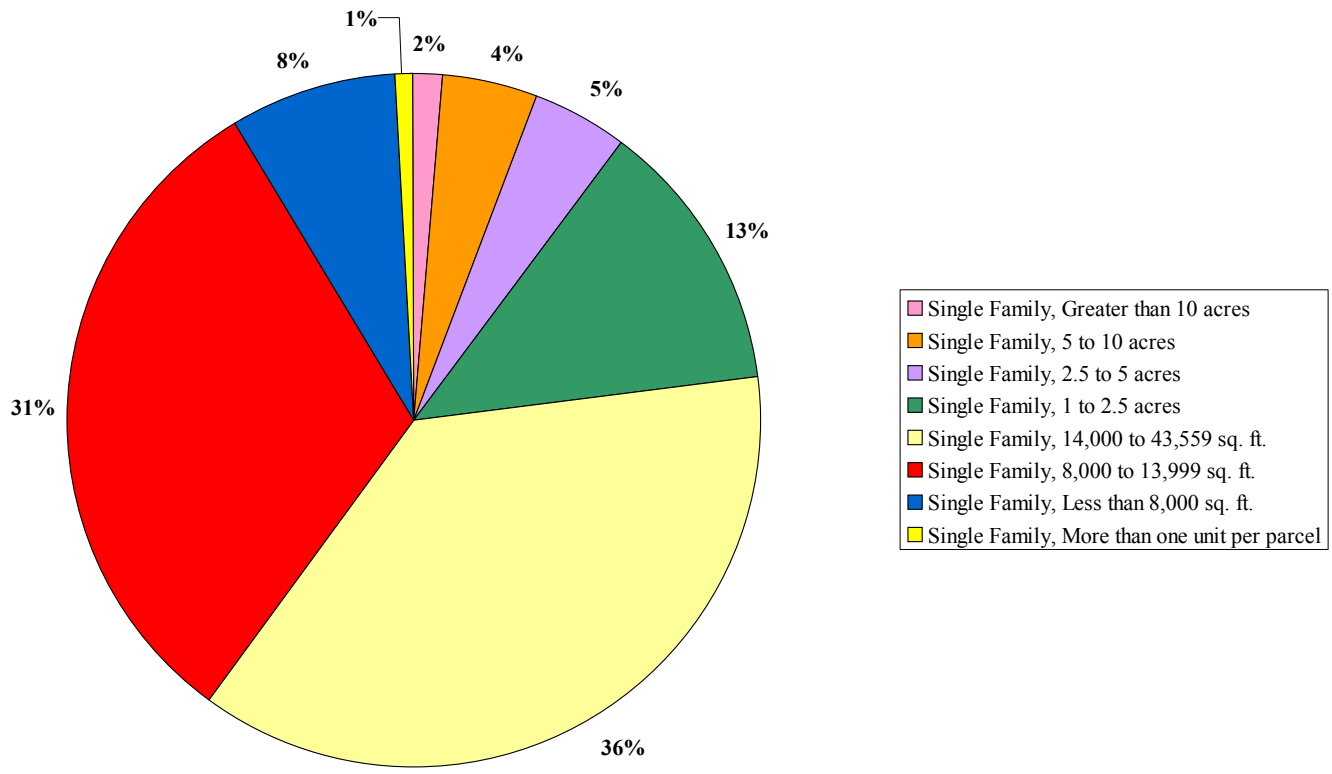
Figure A-10
Existing Land Use Parcel Percent Distribution
Waterford Township
2001



Source: Oakland County Planning and Economic Development Services

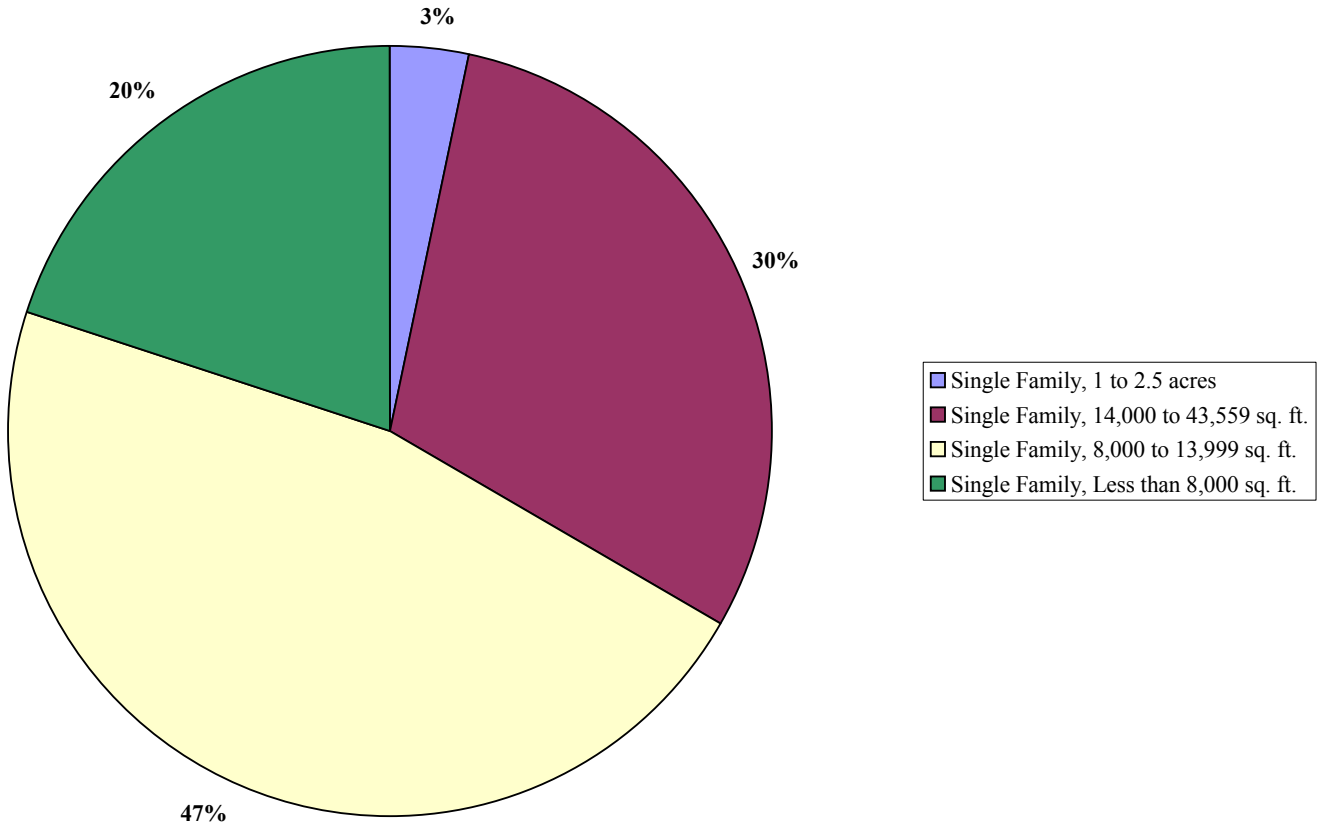
While Waterford's land use is predominantly Single Family Residential, it is not uniform regarding the size or number of parcels, as shown in Figure A-11. For instance, only 11 percent of the total area used for Single Family Residential is used for parcels 2.5 acres or greater in size. Another 13 percent is used for parcels that are 1 to 2.5 acres in size. The majority of parcels, 67 percent, are moderately-sized parcels between 8,000 and 43,559 square feet in size. The predominance of these moderately-sized parcels is also reflected in the 77 percent share of the total number of parcels, as shown in Figure A-12.

Figure A-11
Existing Single Family Category Area Coverage Percent Distribution
Waterford Township
2001



Source: Oakland County Planning and Economic Development Services

Figure A-12
Existing Single Family Summary by Parcel
Waterford Township
2001



Source: Oakland County Planning and Economic Development Services

Consistent with the predominance of Single Family Residential among existing land uses, single-family residential zoning covers 54 percent of the Township, as shown in Table A-28. By comparing coverages between the 2001 Existing Land Use Map and the Zoning map, it is determined that of the 1,704 vacant acres left in Waterford, 1,157 or 67.9 percent are in residential categories. Because of the methodology used by Oakland County to determine land use during its 2001 analysis, many of these parcels are not necessarily vacant in the sense of being buildable. Many of the vacant parcels are owned in common with an adjacent improved residential property, with the owner enjoying the parcel classified as vacant as part of a larger yard area. In addition, many of the parcels are also likely to be unbuildable due to environmental characteristics, such as wetlands. Therefore, the actual amount of truly buildable vacant residential property is likely to be substantially lower, with the Township near its buildout capacity. Before a final determination can be made on an estimated final buildout based on remaining vacant land, an in-depth analysis of each vacant parcel identified by the County must be undertaken. Regarding development of vacant commercial property, with only 268 acres available for commercial development, redevelopment is likely to become the primary focus.

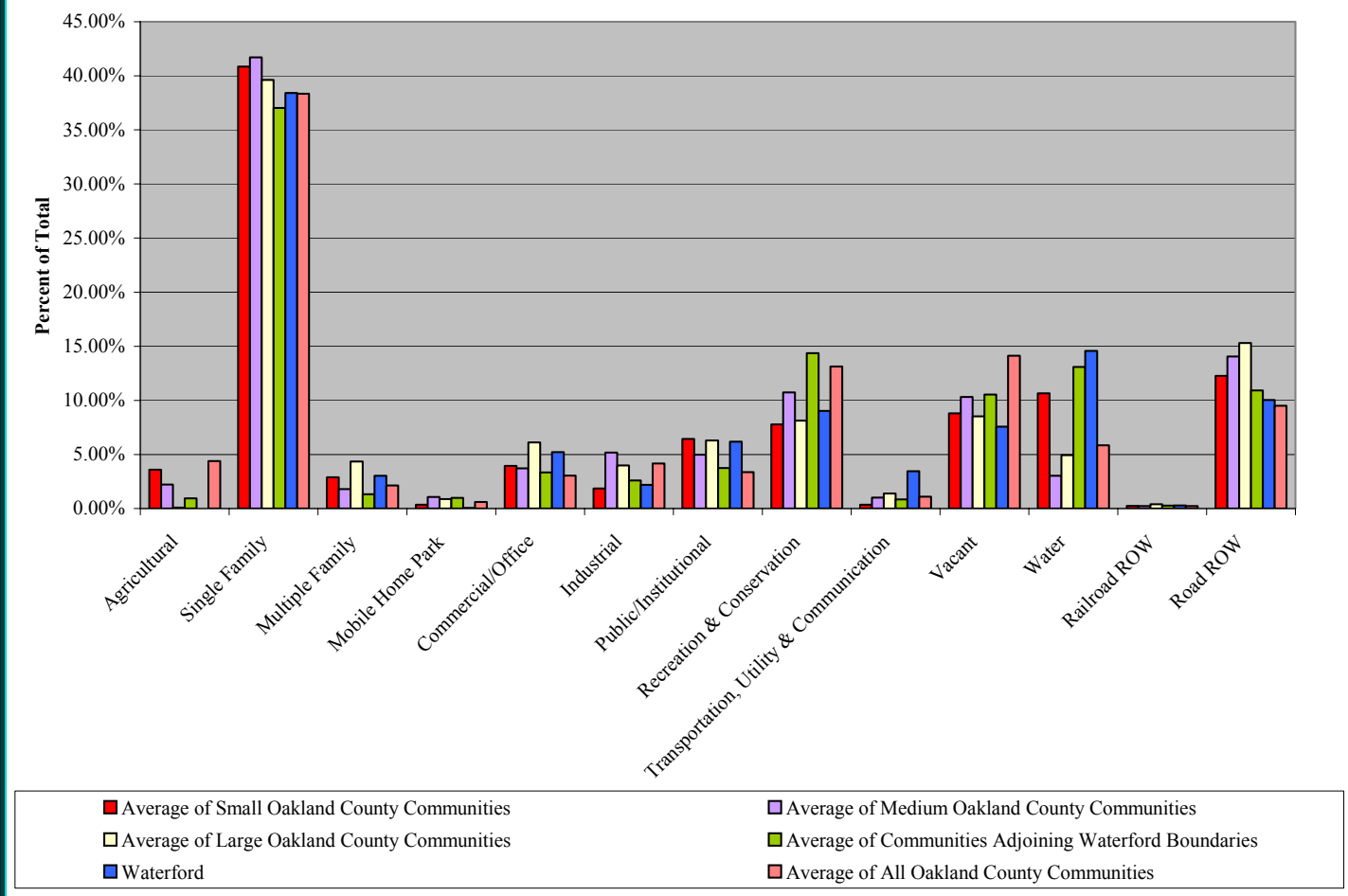
The distribution of Waterford's existing land use was also compared with the existing land use distribution throughout all of Oakland County, the average distribution for the communities adjoining Waterford's borders, as well as with the average distributions for groupings of Oakland County's communities with the smallest, medium-sized, and largest populations. Overall, as is shown in Figure A-13 below, Waterford's distribution of existing land uses is not out of character with its neighboring communities or with the County as a whole.

Table A-28
Existing Zoning Acreage Distribution
Waterford Township
2001

Zoning District Name	Classification	Total Acres	Percent of Total	Vacant (2001)	Percent Vacant
Residential					
Single Family					
Single Family Residential	R1-A	9,376.0	42.0	724.0	8.0
Single Family Residential	R1-B	1,636.0	7.0	170.0	10.0
Duplex	R1-C	6.0	0.0	0.0	7.0
Single Family Attached (3 bedrooms)	R1-D	78.0	0.0	35.0	45.0
Suburban Farm	S-F	1,077.0	5.0	228.0	21.0
Multiple Family					
Multiple Family	R-2	824.0	4.0	91.0	11.0
Low Density Multiple Family (4 bedroom)	R-3	132.0	1.0	1.0	0.0
Mobile Home Park	R-4	12.0	0.0	0.0	0.0
Commercial					
Local Business	C-1	82.0	0.0	7.0	9.0
General Business	C-2	994.0	4.0	169.0	17.0
Extensive Business	C-3	284.0	1.0	45.0	15.0
Union Lake Business District	C-UL	53.0	0.0	8.0	16.0
Restricted Office	R-O1	179.0	1.0	42.0	24.0
Industrial					
Airport	A-1	669.0	3.0	0.0	0.0
Light Industrial	M-1	588.0	3.0	74.0	13.0
General Industrial	M-2	348.0	2.0	85.0	24.0
Technical, Industrial Services & Office	TISO	31.0	0.0	21.0	67.0
Recreation					
Public Recreation	RA-1	14.0	0.0	3.0	23.0
Commercial Recreation	RA-2	36.0	0.0	1.0	3.0
Road System					
Parking	P-1	7.0	0.0	0.0	4.0
Environmentally Sensitive Areas	n/a			0.0	
Water Body		2,915.0	13.0		0.0
Wetlands	n/a	3,179.0	14.0	0.0	0.0
Total	**n/a**	**22,519.0**	**100.0**	**1,704.0**	**8.0**

Source: Waterford Township Community Planning and Development Department, HNTB

Figure A-13
Comparative Land Use Development
Waterford and Oakland County Communities
2001



Source: Oakland County Planning and Economic Development Services

APPENDIX B: CAPITAL IMPROVEMENTS, PUBLIC SAFETY, AND MUNICIPAL SERVICES SUBCOMMITTEE MEETING MINUTES

APRIL 30, 2001 MEETING MINUTES---------- PAGES B-2 THROUGH B-3
MAY 7, 2001 MEETING MINUTES----------PAGES B-4 THROUGH B-17
MAY 21, 2001 MEETING MINUTES ---------- PAGES B-18 THROUGH B-19
JUNE 11, 2001 MEETING MINUTES ---------- PAGES B-20 THROUGH B-22
JUNE 25, 2001 MEETING MINUTES ---------- PAGES B-23 THROUGH B-25
JULY 9, 2001 MEETING MINUTES ---------- PAGES B-26 THROUGH B-27
JULY 23, 2001 MEETING MINUTES ---------- PAGES B-28 THROUGH B-29
AUGUST 13, 2001 MEETING MINUTES ---------- PAGES B-30 THROUGH B-31
AUGUST 27, 2001 MEETING MINUTES ---------- PAGES B-32 THROUGH B-33

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
CAPITAL IMPROVEMENTS, PUBLIC SAFETY, AND MUNICIPAL SERVICES SUBCOMMITTEE
MEETING MINUTES

Date: **30 April 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Jay Shah, Chairman**
Bob Vallina, Community Planning and Development Director
Doug Bradley, Building and Engineering Director
Joe Franz
Bill Harris
Dino Hernandez
Ralph Woznick
Chuck Zamek
Steve Adamczyk

I Welcome

- Chairman Shah opened the meeting and asked everyone present to introduce themselves.

II. Presentations

- Bob Vallina, Township Community Planning and Development Director, provided the subcommittee members with a draft mission statement. He asked that the subcommittee members consider the draft between now and the next meeting and make any revisions they might like to see to the draft. Chairman Shah then stated that the subcommittee could consider the approval of the final mission statement as one of the first orders of business at the next subcommittee meeting.

  Mr. Vallina then handed out a list of prospective topics for discussion at future subcommittee meetings (copy attached for the record). The subcommittee briefly discussed some of these issues in connection with some of their personal experiences. Mr. Vallina stated that if there were any other topics that members would like to add, please send them to him and he would add to future meeting agendas.

  Mr. Vallina explained to the subcommittee that the meeting time, date, and frequency were up to them to decide. He asked that the members consider what meeting schedule they would like to follow. Chairman Shah then stated that the subcommittee would consider these meeting issues and make a final decision at the next meeting.

III. New Business

- Next Meeting–May 7, 2001, 6:30 p.m. in the Township Hall Conference Room 3-1.

CAPITAL IMPROVEMENTS AND MUNICIPAL SERVICES MASTER PLAN SUBCOMMITTEE TOPICS FOR FUTURE MEETINGS

CAPITAL INFRASTRUCTURE

WATER
SEWER
STORM WATER
ROADS
SIDEWALKS
MUNICIPAL BUILDINGS
EXISTING UTILITIES
FUTURE UTILITIES
COMMUNICATIONS

MUNICIPAL SERVICES

POLICE
FIRE/EMS
WATER & SEWER
FACILITIES & OPERATIONS
LIBRARY
PARKS & RECREATION
ADMINISTRATIVE
BUILDING & ENGINEERING
COMMUNITY PLANNING & DEVELOPMENT
INFORMATION SYSTEMS

ESTIMATING FUTURE MAINTENANCE AND STAFFING COSTS FOR INCLUSION IN CAPITAL IMPROVEMENTS PLAN

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
CAPITAL IMPROVEMENTS, PUBLIC SAFETY, AND MUNICIPAL SERVICES SUBCOMMITTEE
MEETING MINUTES

Date: **7 May 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Jay Shah, Chairman**
Doug Bradley, Building and Engineering Director
Joe Franz
Bill Harris
Dino Hernandez
Ralph Woznick

I Welcome

- Chairman Shah opened the meeting and introduced two guests: Sally Tato (Detroit Free Press Reporter); William Archie (Detroit Free Press Photographer)

II. Review of Mission Statement

- Review/Approval of Mission Statement for Capital Improvements and Subcommittees Master Plan Subcommittee

  The committee reviewed the draft mission statement passed out at the last meeting and approved it. A copy of the subcommittee's mission statement as approved is attached.

III. Presentations

- Doug Bradley, Township Building and Engineering Director gave the subcommittee members an overview of the existing storm drainage, water delivery, sewerage, utility, non-motorized path, and road systems in the Township. Mr. Bradley handed out a fact sheet and the following listed nine maps (copies of which are attached to these minutes) to highlight the existing Township infrastructure.
  - Township Improved/Unimproved Streets Map
  - Township RCOC/Private Streets Map
  - Township Nonmotorized Pathways Map
  - Township Sewer Infrastructure Map
  - Township Water Infrastructure Map
  - Township-Owned Buildings and Property Location Map
  - Township Streetlight Location Map
  - Township Cellular Communication Towers Location Map
  - Township School Facilities Location Map

Mr. Bradley then discussed some of the problems experienced by the Township in addressing storm drainage because of under capacity. Mr. Bradley also discussed the status of non-motorized pathways through the Township. The subcommittee members then participated in a Q & A session with Mr. Bradley to clarify and expand on the information that he provided.

IV. Old Business

- Confirm Future Meeting Schedule/Location
  The subcommittee agreed to meet on the second and fourth Mondays of each month, at 6:30 p.m. in the Township Hall Conference Room 3-1.

V. New Business

- Next Meeting–May 21, 2001, 6:30 p.m. in the Township Hall Conference Room 3-1.

CAPITAL IMPROVEMENTS AND MUNICIPAL SERVICES MASTER PLAN SUBCOMMITTEE MISSION STATEMENT

The Capital Improvements and Municipal Services Master Plan Subcommittee will review and explore the existing status of the Township's capital infrastructure and municipal services, investigate and discuss the capital infrastructure improvement and expansion needs of the next ten year period, investigate and discuss the municipal services needed during the next ten years, discuss the need to incorporate maintenance and staffing costs in any capital improvements plan adopted by the Township, prepare a report on the subcommittee's findings, and develop a draft capital improvements plan for review by the Master Plan Citizens Committee of the Whole.

CAPITAL IMPROVEMENTS, PUBLIC SAFETY AND MUNICIPAL SERVICES

REQUESTED DATA FOR MAY 7, 2001

Total Length of all Township Roads:	**1,885,513.10 lf**	**357.10 miles**
RCOC Jurisdiction	1,565,524.00 lf	296.50 miles
MDOT Jurisdiction	76,711.99 lf	14.53 miles
Total Public Roads	**1,642,235.90 lf**	**311.03 miles**
Total Private Roads	243,277.20 lf	46.07 miles
Improved Roads	1,793,648.90 lf	17.40 miles
Unimproved Roads	91,864.20 lf	339.70 miles

Length of Sidewalks and Bikepaths: Note that areas marked "Unknown" have not yet been mapped. However, these areas may include sidewalks. Also, when relating these figures to the road figures, remember that sidewalk/bikepath figures may include lengths for improvements on both sides of the road.

Sidewalks:	583,082.26 lf	110.43 miles
Bikepaths:	224,512.47 lf	45.52 miles

Length of Sanitary Sewer Mains: 1,847,414.7 lf 349.89 miles

Length of Storm Drains: Information unavailable at this time

Length of Water Mains: 1,866,032.5 lf 353.42 miles

Length of Cable Lines (per Comcast):

Aerial Lines	1,540,387.20 lf	291.74 miles
Underground lines:	210,988.80 lf	39.96 miles
Total Cable:	**1,751,376.00 lf**	**331.70 miles**

Length of Natural Gas Lines: Information unavailable at this time

Length of Electrical Lines: Information unavailable at this time

Length of Telephone Lines: Information unavailable at this time

Schools, School Support and Related Facilities:

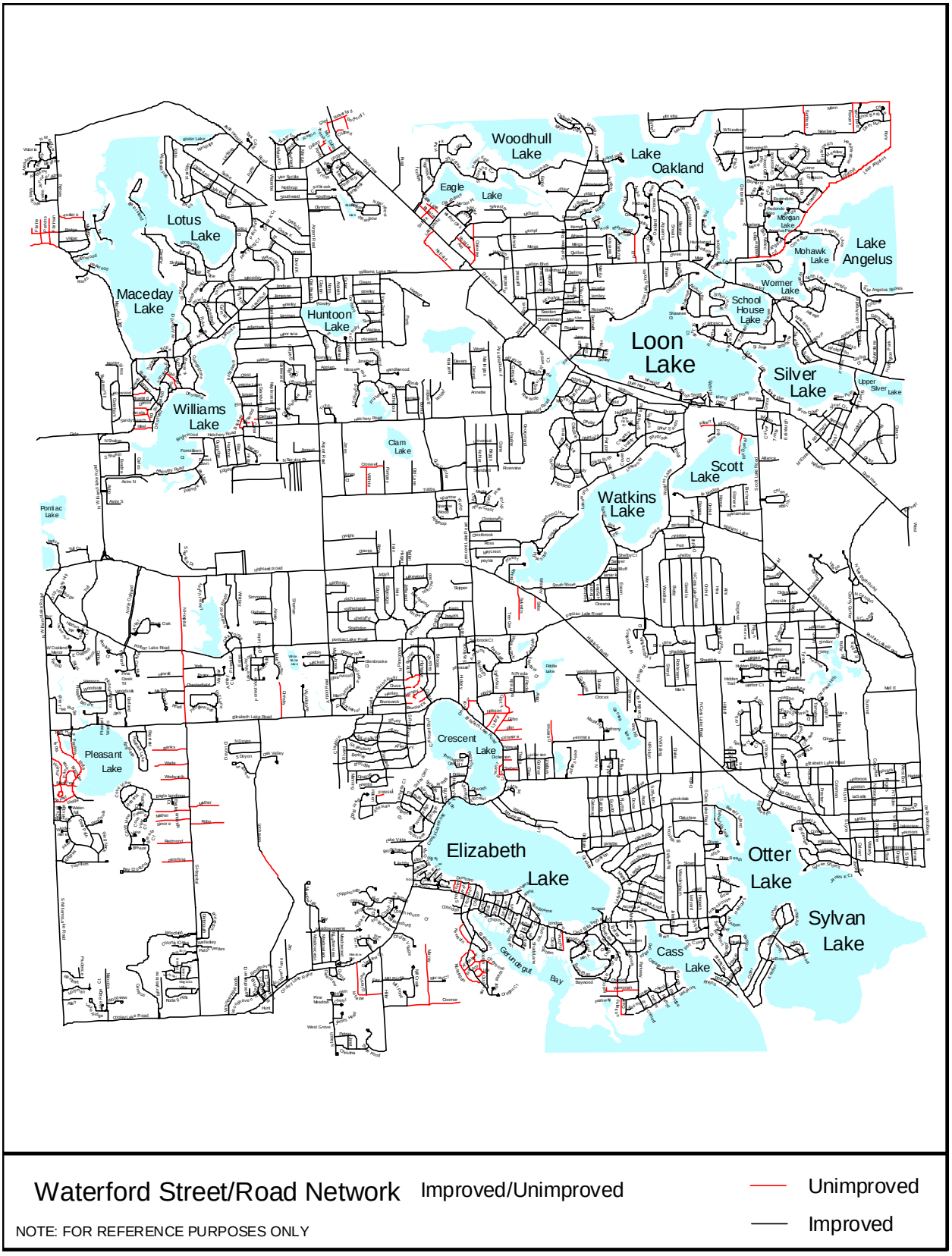
Elementary Schools:	15
Middle Schools:	3
High Schools	4 (including 2 alternative high schools)
Private Schools	6
Colleges:	1
Other	17

TOTAL NUMBER OF CELLULAR COMMUNICATION TOWERS:---------- 18 TOWERS

(Note that collocations sites are not reflected in this total)

TOTAL NUMBER OF STREETLIGHTS (PER DETROIT EDISON): ----------4,845

Total Acreage of Township Owned Property: 914.77 acres
(Note: This total includes subdivision property held in trust)

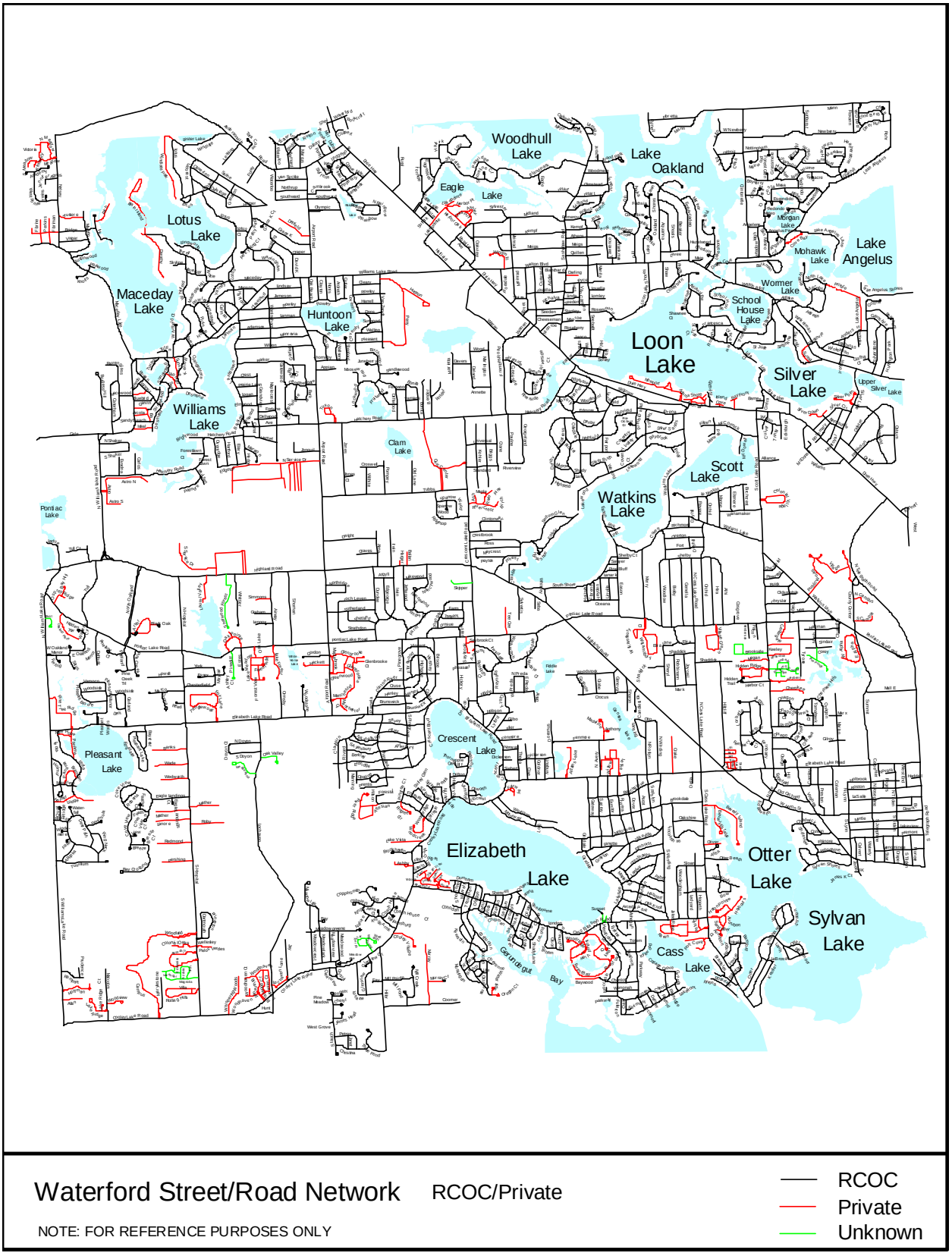


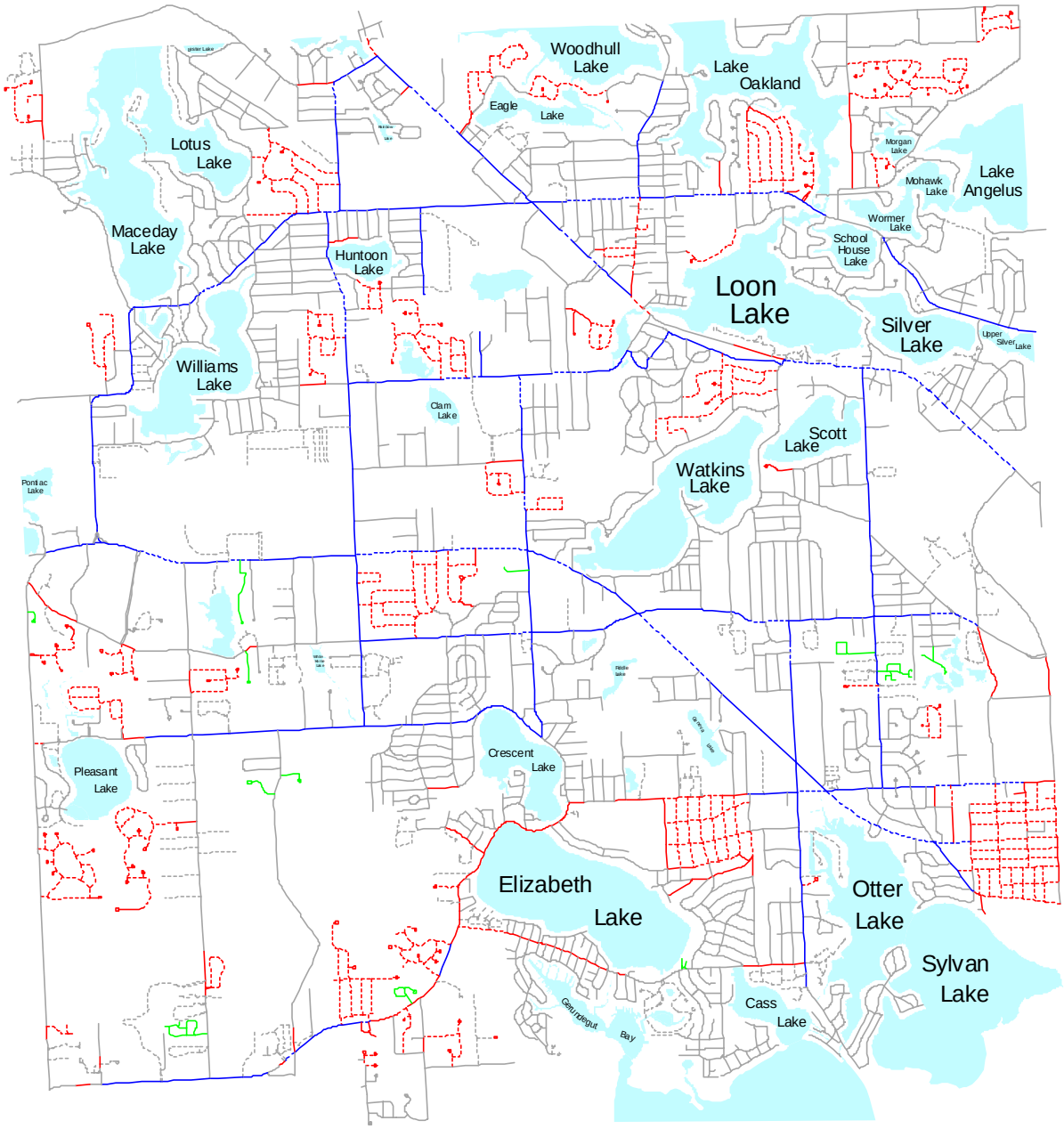
Waterford Street/Road Network Improved/Unimproved

Unimproved

Improved

NOTE: FOR REFERENCE PURPOSES ONLY

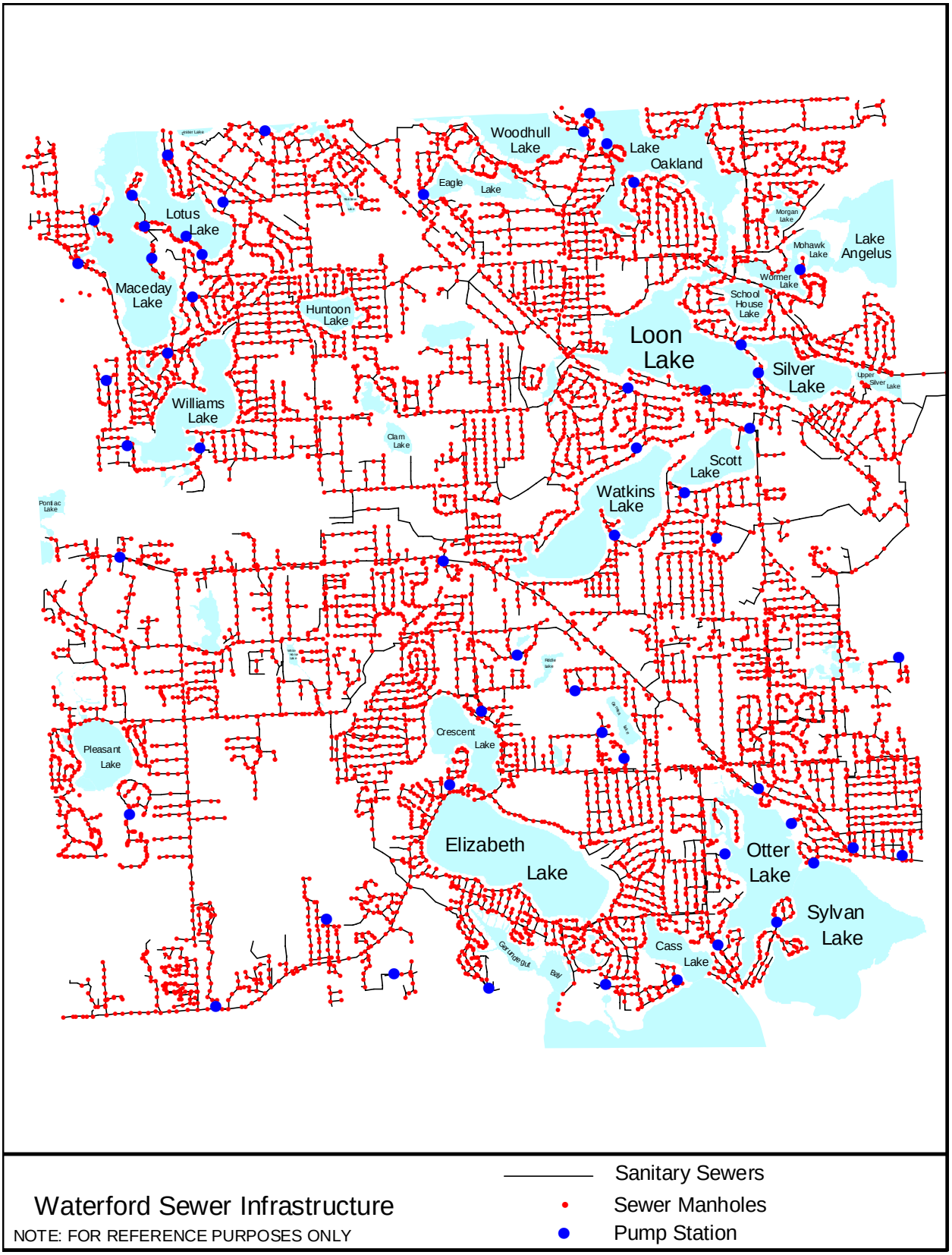

Woodhull Lake
Lake Oakland
Eagle Lake
Lotus Lake
Lake Angelus
Mohawk Lake
Wormer Lake
Maceday Lake
Huntoon Lake
School House Lake
Loon Lake
Silver Lake
Upper Silver Lake
Williams Lake
Clam Lake
Scott Lake
Watkins Lake
Pontiac Lake
Crescent Lake
Pleasant Lake
Elizabeth Lake
Otter Lake
Sylvan Lake
Cass Lake
Grand Traverse Bay
Waterford Street/Road Network
RCOC/Private
NOTE: FOR REFERENCE PURPOSES ONLY
RCOC
Private
Unknown



Waterford Nonmotorized Pathways Map

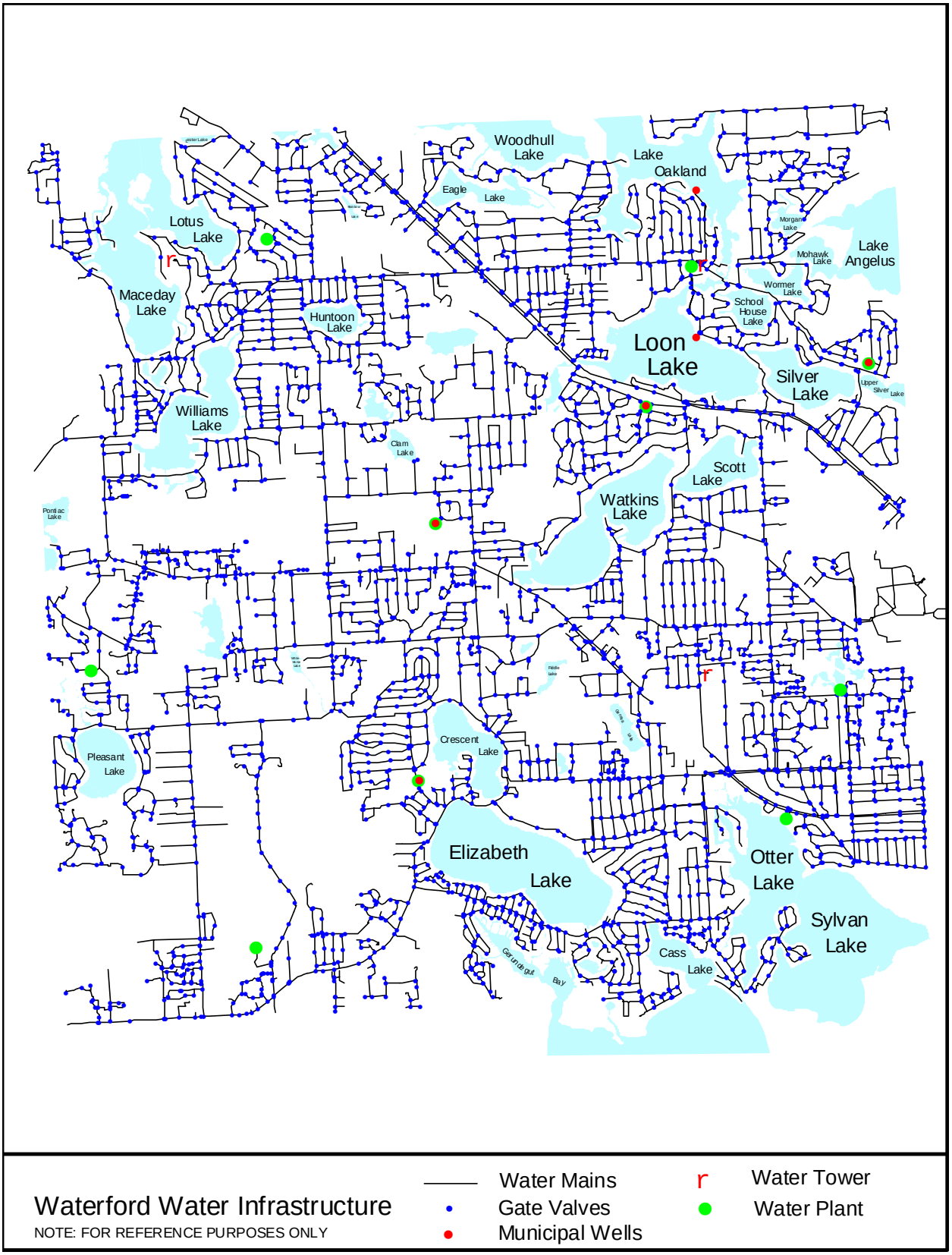
NOTE: FOR REFERENCE PURPOSES ONLY

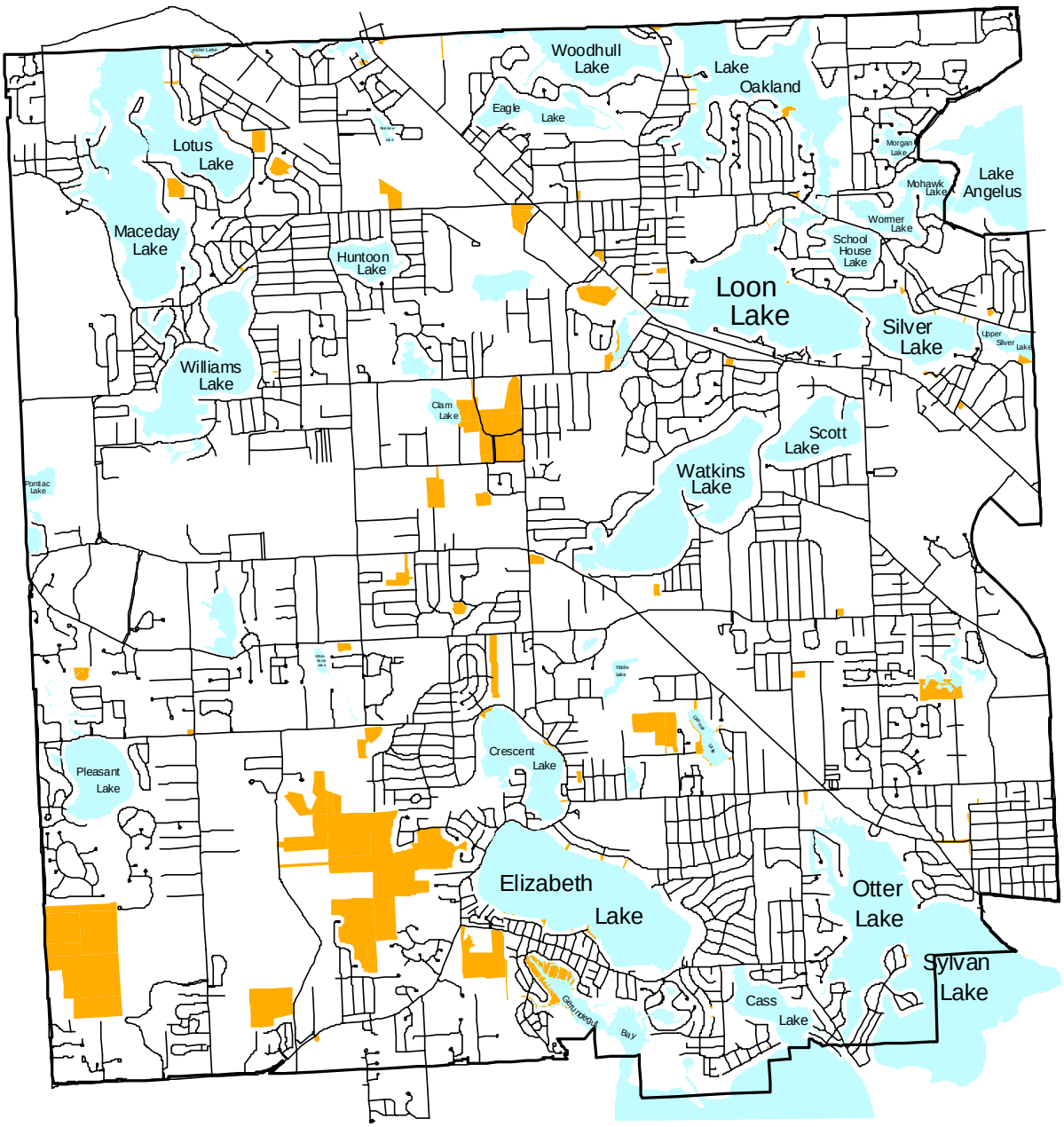
Sidewalk - 1 Side
Sidewalk - 2 Sides
None
Bikepath - 1 Side
Bikepath - 2 Sides
Unknown
Private



Waterford Sewer Infrastructure

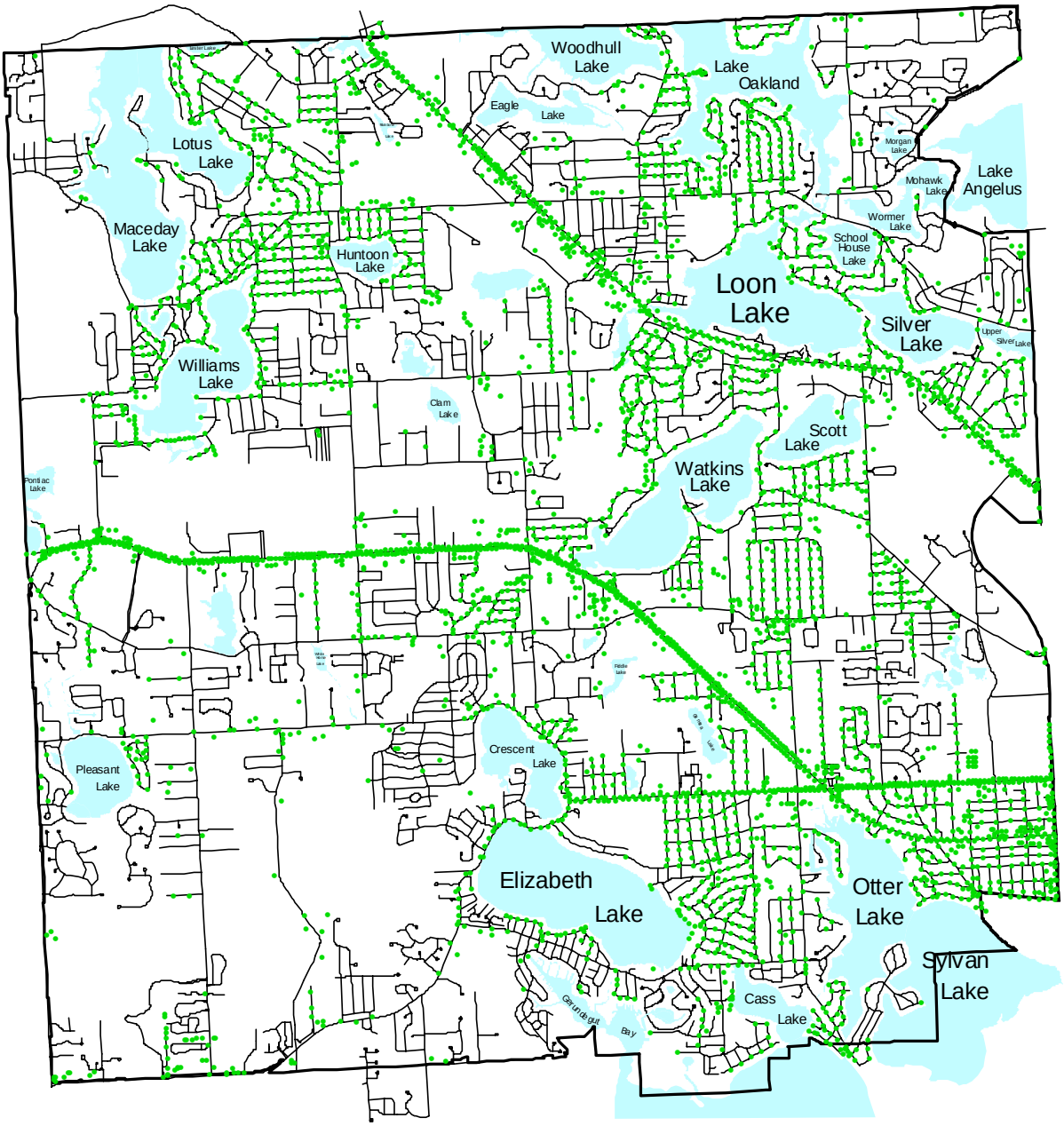
NOTE: FOR REFERENCE PURPOSES ONLY


Woodhull Lake
Lake Oakland
Eagle Lake
Lotus Lake
Maceday Lake
Huntoon Lake
Morgan Lake
Mohawk Lake
Lake Angelus
Wormer Lake
School House Lake
Loon Lake
Silver Lake
Upper Silver Lake
Williams Lake
Clam Lake
Scott Lake
Watkins Lake
Pontiac Lake
Pleasant Lake
Crescent Lake
Elizabeth Lake
Otter Lake
Sylvan Lake
Cass Lake
Gerundegut Bay
Waterford Water Infrastructure
NOTE: FOR REFERENCE PURPOSES ONLY
Water Mains
Gate Valves
Municipal Wells
Water Tower
Water Plant



Waterford Owned Parcels/Buildings (Also includes property held in trust by Waterford)

NOTE: FOR REFERENCE PURPOSES ONLY

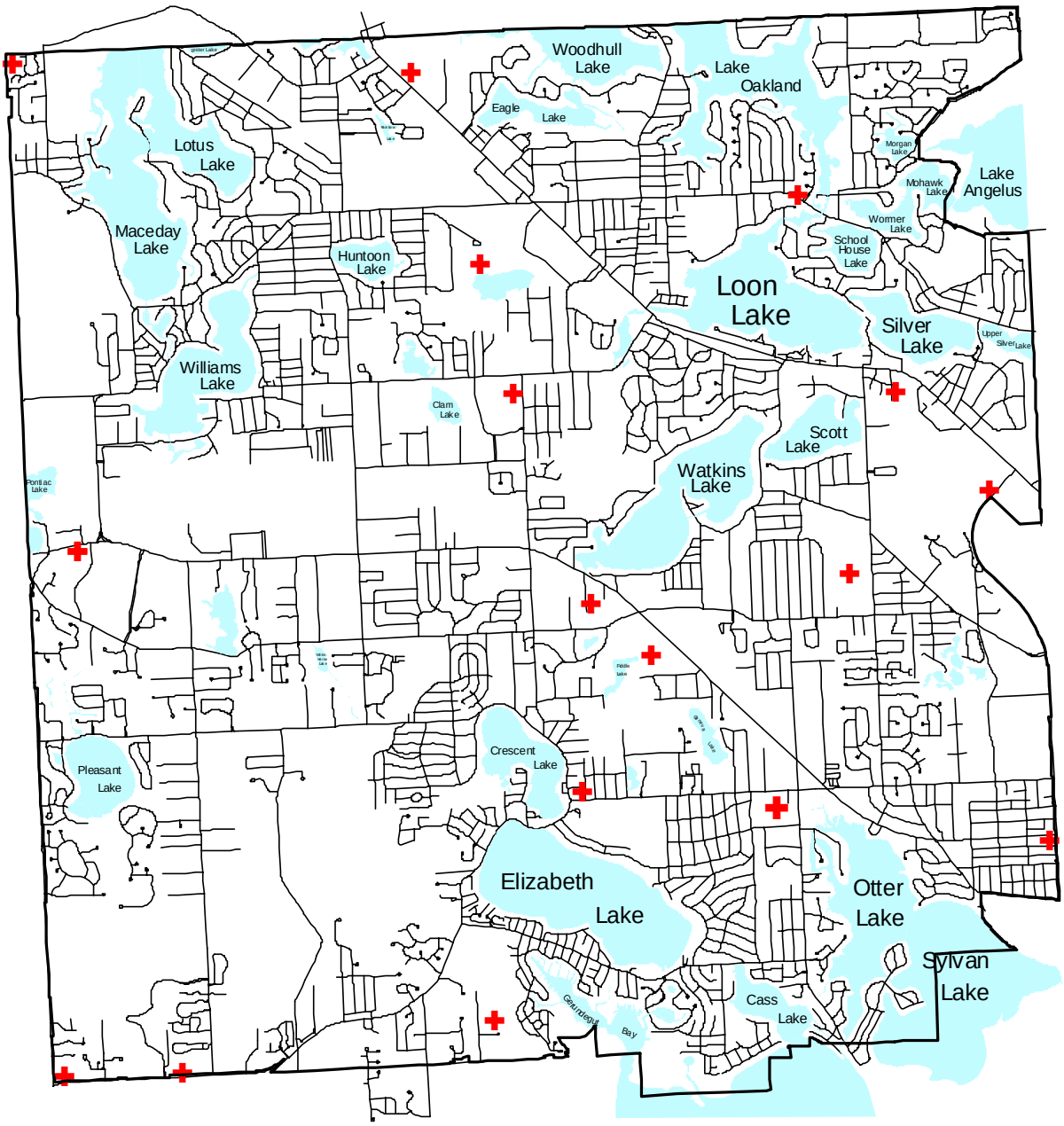


Waterford Street Lights

Roads

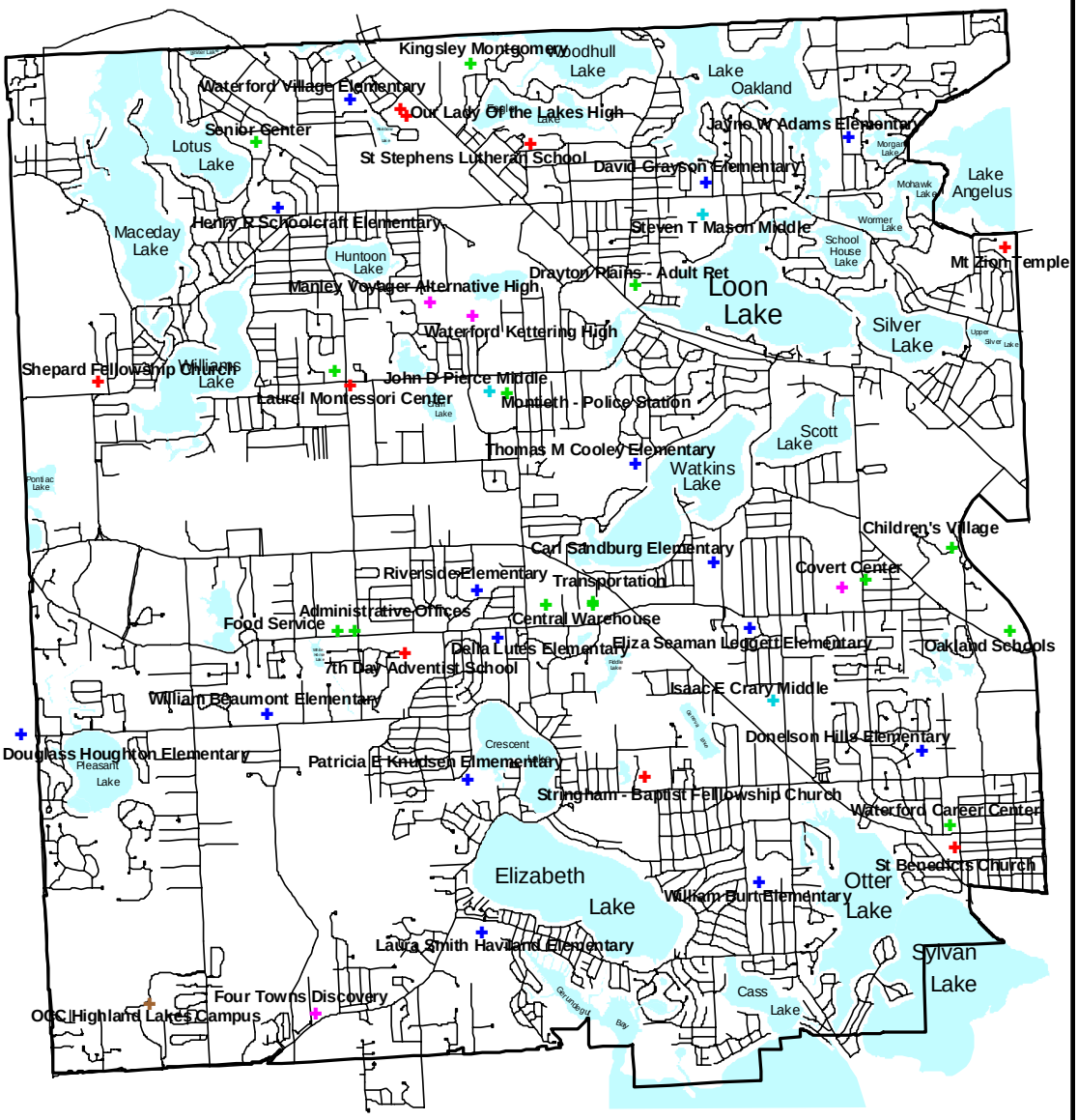
Street Lights

NOTE: FOR REFERENCE PURPOSES ONLY



Waterford Cellular Towers

NOTE: FOR REFERENCE PURPOSES ONLY


Kingsley Montgomery
Woodhull Lake
Lake Oakland
Waterford Village Elementary
Our Lady Of the Lakes High
Senior Center
Lotus Lake
St Stephens Lutheran School
David Grayson Elementary
Jayne W Adams Elementary
Lake Angelus
Maceday Lake
Henry R Schoolcraft Elementary
Steven T Mason Middle
Wormer Lake
School House Lake
Mt Zion Temple
Huntoon Lake
Drayton Plains - Adult Ret
Manley Voyager Alternative High
Loon Lake
Silver Lake
Waterford Kettering High
Shepard Fellowship Church
Williams Lake
John D Pierce Middle
Laurel Montessori Center
Monteith - Police Station
Scott Lake
Thomas M Cooley Elementary
Watkins Lake
Children's Village
Carl Sandburg Elementary
Covert Center
Riverside Elementary
Transportation
Administrative Offices
Food Service
Central Warehouse
Eliza Seaman Leggett Elementary
Oakland Schools
Della Lutes Elementary
7th Day Adventist School
Isaac E Crary Middle
William Beaumont Elementary
Donelson Hills Elementary
Douglass Houghton Elementary
Pleasant Lake
Crescent
Patricia E Knudsen Elmementary
Stringham - Baptist Fellowship Church
Waterford Career Center
St Benedicts Church
Elizabeth Lake
Otter Lake
William Burt Elementary
Laura Smith Haviland Elementary
Sylvan Lake
Four Towns Discovery
OCC Highland Lakes Campus
Cass Lake
High School
Middle School
Elementary School
Private School
College
Other
Waterford School Facilities
NOTE: FOR REFERENCE PURPOSES ONLY

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

CAPITAL IMPROVEMENTS, PUBLIC SAFETY, AND MUNICIPAL SERVICES SUBCOMMITTEE MEETING MINUTES

Date: **21 May 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Jay Shah, Chairman**
Bob Vallina, Community Planning and Development Director
Doug Bradley, Building and Engineering Director
Bill Harris
Tom McKinstry
Ralph Woznick
Chuck Zamek

I. Call to Order.

Chairman Shah called the meeting to order at 6:35 p.m.

II. Discussions.

Mr. Vallina informed the subcommittee that with a capital improvements plan, many long-term capital improvement needs and wants are developed and identified by several of the Township departments. In particular, Mr. Vallina said that DPW, Parks & Recreation, Library, Police, and Fire are the main departments involved in identifying capital improvement needs. A capital improvements wish list will be developed with the assistance of these Township departments. Mr. Bradley discussed the importance of identifying these capital improvement needs and ensuring that these needs are prioritized so that as many of these needs are met before any given infrastructure fails and costs many times more than what it would have cost if repairs or improvements were made in a timely manner. Subcommittee members discussed some of the capital improvements undertaken by the Township recently, such as the Library, Fire Department building, Police Department building, and DPW building.

Mr. Bradley explained to the subcommittee how the Township meets every couple of years with the Road Commission for Oakland County (RCOC) to review the Township's road needs and wants. Prioritization of these needs is also discussed at these meetings. Chairman Shah requested that staff make copies of this RCOC information and provide it to the subcommittee at their next meeting. Mr. Vallina and Mr. Bradley stated that they would do so.

Mr. Vallina then discussed the master plan visioning report that was produced during the summer of 2000 and how it related to the Township's future capital improvement needs and maintaining and improving municipal services. Discussion ensued among members on each of the goals listed in the report.

Mr. Vallina then explained to the subcommittee that the Township's Economic Development Corporation (EDC) had funded a study of the Township's walkability. This study has been completed and was presented to the EDC last Thursday, May 17, 2001 at a public meeting in the Township Auditorium. Mr. Vallina explained that once the report is formally presented to the Township Board, he would have copies made for the Planning Commission and Master Plan committee members. In the meantime, Mr. Vallina discussed the importance of improving the Township's commercial corridors and completing the Township's non-motorized path system if the goal of improving walkability throughout the Township is to be accomplished.

Mr. Vallina informed the subcommittee that at the next Planning Commission meeting on June 12, 2001 the Master Plan Committee of the Whole will meet. One of the items of business will be for each subcommittee chair to provide a brief report from their subcommittee to the whole committee.

III. Tasks (Assigned to CPD Staff)

Chairman Shah then requested that Mr. Vallina discuss with other Township Department heads the capital improvement needs that they foresee for each respective department. Chairman Shah said that this information could be reviewed by the subcommittee at future meetings.

Chairman Shah also requested data on current Township facilities. Mr. Vallina stated that he would contact Township Facilities & Operations Superintendent Keith Wheeler and invite him to attend a future meeting and discuss this data with the subcommittee.

IV. Next Meetings.

The next meetings have been established as follows:

- 11 June 2001, 6:30 p.m. as a joint meeting of the Capital Improvements subcommittee and Transportation subcommittee. The topic will be the road system in the Township.
- 12 June 2001, 7:30 p.m. for Committee of the Whole
- 25 June 2001, 6:30 p.m.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
JOINT
CAPITAL IMPROVEMENTS, PUBLIC SAFETY, & MUNICIPAL SERVICES
AND
TRANSPORTATION & COMMERCIAL CORRIDOR IMPROVEMENTS
SUBCOMMITTEES
MEETING MINUTES

Date: 11 June 2001
Time: 6:30 p.m.
Place: Waterford Township Hall Conference Room 3-1

Present:
Capital Improvements Subcommittee Members
Jay Shah, Chairman
Joe Franz
Dino Hernandez
Bill Harris
Tom McKinstry
Ralph Woznick
Chuck Zamek

Transportation Subcommittee Members
Debbie Harris
Christine Dion
Charlotte Burckhardt
Warren Runyan
Bob Smith
Bob Sharrard

Staff
Bob Vallina, Community Planning and Development Director
Doug Bradley, Building and Engineering Director

V. Call to Order.
Chairman Shah called the meeting to order at 6:35 p.m.

II. Presentations/Handout.

- Chairman Shah informed the subcommittee members that a representative of the Road Commission for Oakland County was invited to this meeting. Mr. Vallina stated that he had a confirmation from the Road Commission that a representative would be in attendance. Since no representative had shown up, Chairman Shah asked Mr. Bradley for a presentation.

Mr. Bradley discussed how the Road Commission for Oakland County held biannual strategic planning meetings with each community. Mr. Bradley reviewed the most recent outcomes of Waterford's planning meeting with the Road Commission.

- The following information regarding the most recent Waterford-RCOC strategic planning meeting was provided:
  - All long-range RCOC strategic priorities are in a 25-year plan.
  - Widening of Hatchery Road from Crescent Lk. Road. to Frembes was discussed. Tri-party funding is needed. Waterford must agree to increase funding.
  - The realigning of Williams Lk. Road at Airport Road. is included in the long-range strategic priorities.
  - Current information on the Williams Lake Road/M-59 intersection was given. This intersection will be straightened out. The one year preliminary engineering is complete. The process should be complete within a year and a half to two years.
  - Telegraph Road is in the process of being extended to Walton Boulevard.
  - A new bridge on Silver Lake Road has been approved.

III. Discussions.

- Flooding on Cass Lake Road between Elizabeth Lake Road and M-59 was discussed. This is the Drain Commission's problem.
- The pavement of Hospital Road was discussed due to safety issues. It is important that our emergency vehicles have access.
- The widening of Pontiac Lake Road was discussed.
- Under the "Strategic Planning Meeting", numbers 1, 3, and 9 are already completed. Numbers 2, 4, 5, and 8 are currently in the process of being completed. The remaining items are the roads that need to be prioritized. A meeting will be scheduled in two weeks to go over this.
- Many of the committee members expressed a desire to see a long-term goal of constructing an extension of Williams Lake Road from where the newly realigned section of Williams Lake Road will end at Gale Road north through the property formerly used as the landfill, connecting with Nelsey Road. This would give motorists a straight shot from the south of the Township to the north. Discussion ensued on the practical and financial difficulties that exist in trying to extend a road through DNR land and over land where the former landfill now sits. However, it was again stressed that nothing will ever be done if we don't express our long-term goals.
- The desirability of creating two dead-end roads out of the current Warren Drive was discussed. It was explained that the northern section of Warren Drive that connects with Dixie Highway is zoned industrial and used for that purpose. The southern section that connects with Frembes Road is zoned residential and is a long-standing close-knit neighborhood. However, in past master plans, the property along the whole road was planned for industrial because of its proximity to the railroad tracks. The neighbors in the residential section have expressed their desire to remain a residential neighborhood and eliminate or reduce the amount of industrial vehicles that travel through their neighborhood to get to the northern section of Warren Drive. Mr. Vallina explained that he has talked with the Road Commission and it is feasible to create two separate roads, one industrial with access off of Dixie Highway and the other residential with access off of Frembes. Cul de sacs for each new road would be created along the dividing line of the current industrial and residential zones. Subcommittee members expressed support

for this road improvement concept. They also supported that this area be looked at during the future land use phase of the master plan process.

IV. Tasks.

Discuss prioritization of remaining road issues with the joint committee. A committee meeting will be scheduled in two weeks to go over this.

V. Next Meeting.

The next meeting will again be a joint meeting and has been established for 25 June 2001, 6:00 p.m., in the Third Floor Conference Room, Township Hall. Staff will again contact RCOC and MDOT and request that they send representatives to this meeting.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
JOINT
CAPITAL IMPROVEMENTS, PUBLIC SAFETY, & MUNICIPAL SERVICES
AND
TRANSPORTATION & COMMERCIAL CORRIDOR IMPROVEMENTS
SUBCOMMITTEES
MEETING MINUTES

Date: **25 June 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present:

Capital Improvements Subcommittee Members

Joe Franz
Bill Harris
Ralph Woznick

Transportation Subcommittee Members

Debbie Harris
Christine Dion
Charlotte Burckhardt
Warren Runyan
Andy Andre

Staff

Bob Vallina, Community Planning and Development Director
Doug Bradley, Building and Engineering Director

Consultants

Steven Hayward, HNTB
Allen Proctor, HNTB

Guests

Mathew Gaberty, Transportation Planner, Road Commission for Oakland County
Bob DeCourt, Traffic Improvement Association
Iris Carey, citizen

I. Discussions.

Mathew Gaberty, Transportation Planner for Oakland County Road Commission, opened the meeting by accepting questions regarding road conditions in Waterford Township. He emphasized the fact that we need to consider the long term outcome of road improvements. Decisions should be made based on the Township's immediate needs and

also the needs ten and twenty years from now. Mr. Gaberty stated that estimated County road needs is approximately $1.7 billion dollars. He also indicated that many of Waterford's roads are included in the Road Commission's Master Future Right-of-Way Plan, which plans for 120 feet of road right-of-way. The minimum right-of-way width is 66 feet. Waterford has adopted the RCOC Master Future Right-of-Way Plan and works to ensure that setbacks for new developments are taken from the future right-of-way line. The widening of roads will be easier due to Waterford's good judgment in the past and planning for the maximum width of 120 feet of roadway.

The possible extension of Williams Lake Road north to Nelsey Road and diverting it from Gale Road was brought up by Deborah Harris. She suggested a route along the left edge of the Waterford map from Gale Road to Nelsey Road. Mr. Gaberty stated that the problem is, there is currently a landfill and state land in this area, causing new road construction to be difficult financially.

The possibility of adding right hand turn lanes where they were needed instead of widening the entire road to minimize the expense of road improvements, was suggested by Christine Dion. Mr. Gaberty stated that the problem with this is the possible future need of widened roads and that he would personally prefer widening versus adding right-hand turn lanes.

Paving the remaining unpaved section of Lochaven Road was discussed. The subcommittee members stated that they believe this should be a priority. Mr. Gaberty stated that paving this section would cost as much as paving the entire rest of the road because of the existing unstable soil conditions in the unpaved section.

Mr. Gaberty also pointed out these issues:

- "NIMBY" Stands for Not In My Back Yard. We will run into problems with homeowners because of this attitude.
- Mass Transit is not cost effective for Waterford. It does not pay for itself and Mr. Gaberty believes that it will not be utilized.
- We should use the planner's approach when presenting priorities to the Road Commission by using markers and listing potential problems.

Mr. Bob DeCorte of the Transportation Improvement Association recommended:

- Look at the "big picture" instead of individual intersections.
- Work with surrounding townships to see their traffic flows and new developments and how it affects us.
- Require traffic impact statements from developers.
- Look at where the traffic problem is and what is causing the problem.
- Create a traffic safety committee, dedicated to looking at street signs, lights, turn lanes, etc.
- Work on a 2-year plan as well as a 10-3 0 year plan. The 2 year will coincide with the RCOC update when they come to the township.

- Close curb cuts. Curb cut permits should be required.

The Road Commission has the jurisdiction but the township has the power. The Road Commission will not do anything unless the township supports it.

Steve Hayward (HNTB) suggested we identify our goals by listing them. Then try to find links between them to make our plan come together.
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II. Next Meeting.

The next Capital Improvements meeting is scheduled for July 9, 2001 at 6:30 p.m. in the Township Hall Conference Room 3-1.

The next Transportation meeting is scheduled for July 16, 2001 at 6:30 p.m. in the Township Hall Conference Room 3-1.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
CAPITAL IMPROVEMENTS, PUBLIC SAFETY, AND MUNICIPAL SERVICES SUBCOMMITTEE
MEETING MINUTES

Date: **9 July 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Bob Vallina, Community Planning and Development Director**
Doug Bradley, Building and Engineering Director
Bill Harris
Tom McKinstry
Ralph Woznick
Chuck Zamek
Leslie Kettren, HNTB

I. Call to Order.

The meeting was called to order at 6:30 p.m.

II. Discussions.

Mr. Bradley discussed the history of the construction of the Township's existing bikepath system. Mr. Bradley provided the bikepath master plan map to the members and explained how the Township once had a millage for the construction of the bikepath system. That millage was allowed to expire by the Township in the mid-1980s. Mr. Bradley also discussed the development of the sidewalk systems in the Township and the disparity in age and condition. Mr. Bradley explained that there are some very old sidewalk in the Township, much of which is beyond its useful life. In particular, he used the sidewalk in Elizabeth Lake Estates as an example. Both Mr. Bradley and Mr. Vallina discussed the current requirements in the zoning ordinance for developers to install sidewalk as part of any new development. Mr. Bradley stated that the primary problem for completing the bikepath system, expanding sidewalk in existing neighborhoods, and improving existing sidewalk is that of funding. Mr. Bradley stated that he provided the Township Board with a recommendation for resolving the funding issue back in 1999. The Township Board did not act at that time. Mr. Bradley also explained the 1996 Michigan Supreme Court (Sidewalk) Township responsibility ruling and the difficulties the Township faces in trying to avoid legal liability with the repair and maintenance of existing bikepath and sidewalk. Mr. Vallina explained the role that the Township's CDBG funding has played in funding construction of qualified neighborhood sidewalks. Both Mr. Bradley and Mr. Vallina stressed the importance of finding a suitable and stable funding source for sidewalk/bikepath improvements and maintenance.

The subcommittee members discussed the information provided by Mr. Bradley. It was decided that:

- The Township should explore using volunteers to create a sidewalk/bikepath inventory.
- Supported the establishment of a sidewalk/bikepath funding mechanism, such as a millage or special assessment district, as a goal of the master plan.
- Emphasized strong support for establishing an ongoing sidewalk/bikepath maintenance program.
- Suggested using non-motorized pathways in the master plan to describe the Township's sidewalks and bikepaths.
- Supports continuing the existing zoning ordinance language for requiring installation of non-motorized pathways as part of new developments.

III. Next Meeting.

July 23, 2001 in the Township Hall Conference Room 3-1. Guest Speaker will be Township Facilities and Operations Superintendent Keith Wheeler.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
CAPITAL IMPROVEMENTS, PUBLIC SAFETY, AND MUNICIPAL SERVICES SUBCOMMITTEE
MEETING MINUTES

Date: **23 July 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall First Floor Lounge**

Present: **Bob Vallina, Community Planning and Development Director**
Doug Bradley, Building and Engineering Director
Joe Franz
Bill Harris
Tom McKinstry
John Pritchard
Ralph Woznick
Chuck Zamek

Guests
Keith Wheeler, Facilities and Operations Supervisor
Rob Seeterlin, Fiscal and Human Resources Director

I. Welcome.

New member John Pritchard was introduced to the committee.

II. Presentations.

Keith Wheeler, Township Facilities and Operations (F & O) Superintendent, explained the functions of his department and the status of Township facilities. Twenty-six years ago, F & O had a total of 12 full time employees plus 20 CETA employees. Now there are 12 full time employees plus eight part-time summer employees. The staff level has stayed the same, while the number of buildings and facilities has increased. Twenty-six years ago, the Township government operated out of four buildings, the old town hall, the old water & sewer building, the F & O building, and the original library building. This has now grown to ten buildings, the current town hall, the 51st district courthouse, the main library, the new fire department building, the new police department building under construction, the new DPW building, the current police department building, the F & O building, the Andersonville church building, and the CAI building. The maintenance of the last two buildings are done by the Parks & Rec department. There are five cemeteries that handle approximately 75 to 100 burials per year. The F & O staff are also responsible for vehicle fleet maintenance.

Mr. Wheeler stated that the main focus of the Township's capital needs in the next ten to twenty years is maintenance. For instance, the Township compost site has a $50,000 wood chipper that is expensive to maintain. Before the current police department building can be used for the parks & recreation department, the building needs a new roof; the estimated cost is $2,000 to $3,000. It also needs new windows. The old boiler should be adequate, but funds should be set aside in the event that it fails. Mr. Wheeler stated his opinion that the two most important capital improvement goals during the next 20 years is to increase storage facilities for Township records and equipment, and to ensure that enough funding is provided to perform preventative maintenance on all Township buildings and roofs, as well as the heating/cooling/plumbing/electrical systems, ensuring that no department suffers any loss of capacity for serving Waterford citizens.

Subcommittee members then went into detailed discussion with Mr. Wheeler on specific facilities of the Township. They asked about if a Community Center is built; Mr. Wheeler stated that would be an additional facility to maintain if it is built.

The subcommittee members discussed the information provided by Mr. Wheeler. It was decided that:

- Supported the focus on maintaining the existing Township facilities and services as a goal of the master plan.
- Emphasized strong support for long-term preventative maintenance program.
- Emphasized strong support for adequate Township staffing to provide preventative maintenance services.

III. Next Meetings.

The next meeting was set for August 13, 2001 at 6:30 p.m. in the new Fire Department building conference room. The topic will be storm drainage and a guest speaker from the Oakland County Drain Commissioner's office will be in attendance.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
CAPITAL IMPROVEMENTS, PUBLIC SAFETY, AND MUNICIPAL SERVICES SUBCOMMITTEE
MEETING MINUTES

Date: **13 August 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Fire Department Conference Room**

Present: **Jay Shah, Chairman**
Bob Vallina, Community Planning and Development Director
Doug Bradley, Building and Engineering Director
Bill Harris
Dino Hernandez
Ralph Woznick
Chuck Zamek
Mike Howell, HNTB

Guests

Joe Kozma, Oakland County Drain Commissioner's Office
Dave Potter, Spalding DeDecker and Associates
Terry Broemer, Johnson and Anderson, Inc.
Ole Anderson, Johnson and Anderson, Inc.

I. Welcome.

Chairman Shah called the meeting to order at 6:30 p.m. and introduced tonight's guest speaker, Mr. Joe Kozma from the Oakland County Drain Commissioner's Office. Chairman Shah also introduced Dave Potter from Spalding DeDecker and Terry Broemer & Ole Anderson from Johnson and Anderson. Both firms are consulting engineering firms.

II. Presentations.

Mr. Kozma reviewed the storm drainage systems that exist in Waterford. He explained that the Drain Commissioner's office does not oversee all drainage systems in the Township. The Road Commission for Oakland County oversees the drainage systems that are related to the road network. In addition, there are private drains. It is difficult to assess the effectiveness of Township-wide storm drainage capacity when there is such a fragmented system. There is not enough funding under the current Drain Commissioner system to create a unified Township-wide storm drain system.

The subcommittee members discussed the information provided by Mr. Kozma. It was decided that:

- Supported the funding and development of a Township-wide master storm drainage study as a goal of the new master plan.
- Supported the investigation of the feasibility of creating and funding a unified township drain authority.
- Emphasized that the maintenance and control of road drainage is included in such a drain authority.
- Emphasized that storm drainage impact be thoroughly analyzed during property development and redevelopment.

III. Next Meetings.

The next meeting was set for August 27, 2001 at 6:30 p.m. in the Township Hall second floor conference room. This will be the final subcommittee meeting. HNTB will conduct an exercise with the subcommittee members to determine the goals and objectives that the subcommittee members want to forward to the Master Plan Committee of the Whole for consideration as master plan goals.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
CAPITAL IMPROVEMENTS, PUBLIC SAFETY, AND MUNICIPAL SERVICES SUBCOMMITTEE
MEETING MINUTES

Date: 27 August 2001
Time: 6:30 p.m.
Place: Waterford Township Hall Second Floor Conference Room

Present: Jay Shah, Chairman
Bob Vallina, Community Planning and Development Director
Joe Franz
Bill Harris
Ralph Woznick
Mike Howell, HNTB

I. Welcome.

Chairman Shah called the meeting to order at 6:30 p.m.

II. Development of Goals and Objectives

Mr. Howell explained that he would facilitate tonight's subcommittee brainstorming session. The goal of the exercise is to come up with a list of capital improvement and municipal service goals and objectives that everyone in attendance is comfortable in sending to the Committee of the Whole. Mr. Howell conducted the exercise, with the following goals and objectives recommended by the subcommittee to be included in the Township's new master plan as the result of its research and findings.

GOAL: Maintain Existing Level of Service for Fire Protection

- Continue the maintenance and update of Township fire hydrants
- Ensure effective fire-fighting coverage of Township fire hydrants
- Maintain existing level of EMS service for Township citizens
- Plan for future expansion of EMS needs

GOAL: Maintain and Improve Existing Level of Water Service Lines

- Continue the maintenance and update of water lines
- Ensure and enforce the installation of water line loop systems
- Continue to ensure proper water pressure to hydrants
- Develop a preventative water line maintenance and replacement schedule to be incorporated into the Township capital improvement plan

GOAL: Improve the Storm Drainage System

- Fund and conduct a master storm drainage plan
- Investigate the feasibility of creating and funding a unified township drain authority
- Ensure the inclusion of maintenance and control of road drainage
- Ensure that the impact of all new development and redevelopment on the township's storm drainage system is properly evaluated and minimized

GOAL: Improve the Township Roads

- Investigate stronger Township involvement and participation in the maintenance and improvements of the County road system in Waterford Township
- Ensure that the level of funding for DPW staffing, equipment, and resources is sufficient to properly handle any additional duties related to an expanded Township role in the maintenance and improvement of the Township road system
- Develop an annual Township roads capital needs review process

GOAL: Expand and Improve Non-Motorized Paths (Sidewalks, Bike Paths, and Nature Trails)

- Fund and connect a master non-motorized path construction and maintenance plan
- Construct connections between existing segments of non-motorized paths
- Maintain and improve existing segments of non-motorized paths

GOAL: Improve and Enhance the Township's Utility Infrastructure

- Install all overhead utility wires underground
- Ensure that utility companies possess the capacity to provide full and uninterrupted service for proposed land uses
- Plan for Township use of future utility technology and installation of the necessary infrastructure systems

GOAL: Provide a Preventative Maintenance Schedule for All Township Buildings and Service Systems

- Ensure that all Township buildings are capable of safely and effectively providing the necessary surroundings for Township staff to provide services to Township citizens
- Develop a preventative maintenance schedule for Township buildings to be incorporated into the Township capital improvement plan
- Develop an annual Township buildings capital and maintenance needs review process

GOAL: Maintain Existing Level of Service for All Current Township Services

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APPENDIX C: ECONOMIC DEVELOPMENT SUBCOMMITTEE MEETING MINUTES

MAY 3, 2001 MEETING MINUTES----------PAGES C-2 THROUGH C-4
MAY 17, 2001 MEETING MINUTES ---------- PAGE C-5
JUNE 7, 2001 MEETING MINUTES ---------- PAGE C-6
JUNE 27, 2001 MEETING MINUTES ---------- PAGE C-7
JULY 12, 2001 MEETING MINUTES ---------- PAGE C-8
JULY 26, 2001 MEETING MINUTES ---------- PAGE C-9
AUGUST 9, 2001 MEETING MINUTES----------PAGE C-10
AUGUST 23, 2001 MEETING MINUTES ----------PAGES C-11 THROUGH C-14

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
ECONOMIC DEVELOPMENT SUBCOMMITTEE
MEETING MINUTES

Date: **3 May 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 2-1**

Present: **Chairman Scott Hudson**
Judy Kennedy
Scott Dougherty
Ted Taylor
Shawn David
Perry Bowman
Mark Kellenberger, Planner II

I. Call to Order.

Chairman Hudson opened the meeting and asked everyone present to introduce themselves. The members of the group introduced themselves and revealed their interest in the Economic Development Sub-committee. Mr. Kellenberger passed out the meeting agenda, a draft mission statement, and a list of discussion topics for consideration.

II. Discussions.

The draft mission statement was read and there was a consensus that the statement adequately covered the goals of the committee. The subcommittee members discussed the mission statement and that was also accepted. Discussion took place regarding what economic development is and what it means to Waterford Township. Economic development can be defined as tools and resources that make it attractive for businesses to locate and/or remain in Waterford Township. The group presented concerns over the amount of vacant store fronts, abandoned building and underutilized properties. Also, discussed was the appearance of Waterford Township and the connotation that is connected to it for the thousands of people who drive through the Township everyday. Finally, the group started a discussion of tools that are commonly use to spur economic development. Staff presented a number of different economic development tools such as, brownfield redevelopment authorities, downtown development authorities, empowerment zones, smart zones, tax abatements, and business incubators. This is not an exhaustive list by any means

III. Next Meeting.

The next meeting will be May 17, 2001, at 6:30 p.m. in the second floor conference room.

ECONOMIC DEVELOPMENT MASTER PLAN SUB-COMMITTEE MISSION STATEMENT

The Economic Development Master Plan Subcommittee will conduct an assessment of current economic conditions in Waterford Township, investigate strategies for stimulating economic development, examine concepts geared toward attracting new businesses while retaining the existing commercial base, and creating an environment that is conducive to sustaining desirable business activities. These efforts will result in the culmination of ideas that are assembled into a report on the subcommittee's findings and presented to the Committee of the Whole.

ECONOMIC DEVELOPMENT MASTER PLAN SUB-COMMITTEE
TOPICS FOR DISCUSSION

- **Economic Development – Defined (General)**
- **Economic Development – Defined (Waterford Township)**
- **Discuss the existing economic climate in Waterford Township.**
- **What is the desired business climate?**
- **Discuss various economic development tools.**
- **Investigate innovative business retention and attraction techniques.**
- **How can Waterford Township aid existing businesses?**
- **How can Waterford Township stimulate economic growth and development?**
- **How can Waterford Township sustain existing and future business activities?**

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
ECONOMIC DEVELOPMENT SUBCOMMITTEE
MEETING MINUTES

Date: **17 May 2001**
Time: **5:30 p.m.**
Place: **Waterford Township Hall Auditorium and Conference Room 2-1**

Present: **Chairman Scott Hudson**
Judy Kennedy
Scott Dougherty
Ted Taylor
Shawn David
Perry Bowman
Mark Kellenberger, Planner II

I. Call to Order.

The group attended the public presentation of the Waterford Township Walk-ability Study by Beckett and Raeder to the Waterford Township Economic Development Corporation.

II. Discussions.

The group then adjourned to the second floor conference room and began to discuss brownfields. Brownfields are dilapidated properties that contain contaminants and are unattractive for new business to use or redevelop. The Brownfield Redevelopment Financing Act of 1996 gave governments the ability to establish redevelopment authorities to address these problems and to utilize economic development tools such as tax incentives, grant monies that can be used for clean-up activities, and tax capture (when structured as tax increment financing). Staff presented the group with some reference material for the group to familiarize themselves with the idea of Brownfield Redevelopment Authorities. Chairman Hudson stated that the City of Pontiac was holding a public hearing regarding two brownfield sites this evening and that it may be beneficial for members of the group to attend.

III. Next Meeting.

The next meeting will be June 7, 2001. The meeting was adjourned and some members of the group attended the Pontiac City Council meeting.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

ECONOMIC DEVELOPMENT SUBCOMMITTEE MEETING MINUTES

Date: **7 June 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 2-1**

Present: **Chairman Scott Hudson**
Judy Kennedy
Scott Dougherty
Ted Taylor
Shawn David
Perry Bowman
Mark Kellenberger, Planner II

I. Call to Order.
Chairman Hudson opened the meeting.

II. Discussions.
Staff informed the group that HNTB (planning consultants) was going to be conducting a public survey and wanted seven (7) questions from each sub-committee to choose from and include into the survey. The group developed seven (7) questions for the public survey to be conducted in conjunction with the Master Plan Study. The questions are as follows:

- Should Waterford Township be involved in economic development activities in Waterford Township (i.e. assisting business)?
- If so, in what ways would you like to see the Township assist business?
- What type of development would you like to see more of in Waterford Township? Residential/commercial/office/industrial
- How would you describe the economic conditions in Waterford Township?
- What type of businesses are lacking in Waterford Township?
- What type of businesses should Waterford attempt to attract?
- Should Waterford Township start a business registration program?

The group then discussed what the focus of the final product of the sub-committee should be and what type of tools should be investigated and included as part of the final report. Staff indicated that the final product that will explain the issues that we have discussed and will reveal goals and objectives that will be developed as the group continues to meet. The tools that should be investigated are limitless. Staff indicated that we will be talking about various tools, however, the job of this sub-committee is not to determine what tools the Township should incorporate, rather the group should identify whether economic development concerns exist and what the Township can do to resolve these issues

III. Next Meeting.
Chairman Hudson announced that he had arranged for Maureen Kraus, Senior Business Development Representative, to attend the groups next meeting, on June 27, 2001, give a brief presentation, and answer questions from the group. The meeting adjourned.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

ECONOMIC DEVELOPMENT SUBCOMMITTEE MEETING MINUTES

Date: **27 June 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 2-1**

Present: **Chairman Scott Hudson**
Judy Kennedy
Scott Dougherty
Ted Taylor
Shawn David
Perry Bowman
Mark Kellenberger, Planner II

Guests
Maureen Donohue Krauss (Oakland County)

I. Call to Order.

Chairman Hudson called the meeting to order and introduced Maureen Donohue Krauss, Senior Business Development Representative for Oakland County Planning and Economic Development.

II. Discussions.

Mrs. Krauss discussed the economic development activities at the County level and provided some background of what her job entails. She travels the world marketing Oakland County as an attractive area for businesses to locate. There are several other aspects of economic development, Mrs. Krauss explained, and the County has a staff that is dedicated to making Oakland County the best it can be. The group then had a discussion, led by Mrs. Krauss, of tools offered by Oakland County (business attraction, business retention, small business program, financing, and export assistance) and tools that Waterford Township could establish without duplicating the efforts of the County (tax abatements, brownfield authorities, downtown development authorities, business registration, and marketing assistance). Mrs. Krauss discussed the importance of being involved in economic development groups and events and the need for the consistent application of streamlined policies and procedures that makes the community attractive to business location and expansion. The meeting concluded by Chairman Hudson asking the group to identify basic concepts that the Township should investigate. This included the development of streamlined policies and procedures, development of a business registration, creation of a Township point person, and further investigation of economic tools (listed above).

III. Next Meeting.

Chairman Hudson indicated that the next meeting of the economic development sub-committee will be at the Economic Development Corporation's (EDC) meeting on July 12, 2001 in the third floor conference room. Staff was asked to develop five (5) questions that could be directed toward the EDC. The meeting was adjourned.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

ECONOMIC DEVELOPMENT SUBCOMMITTEE MEETING MINUTES

Date: **12 July 2001**
Time: **5:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1 and 2-1**

Present: **Chairman Scott Hudson**
Scott Dougherty
Ted Taylor
Mark Kellenberger, Planner II

I. Call to Order.

The group attended the Economic Development Corporation meeting. The meeting was called to order by Dennis Ritter, Chaiman of the Economic Development Corporation.

II. Discussions.

Staff presented the subcommittee with the list of five (5) questions. The meeting began with the EDC explaining their function. The EDC acts as a conduit for the business community. The can issue Industrial Revenue Bonds, however, the 1986 tax reform restricted the ability to issue bonds. The focal area study (located on the walls around the conference room) was a project that was funded by the EDC. Recently, Grunewald Technologies made a presentation to the EDC for consideration of a tax abatement. The EDC made a favorable recommendation to the Township Board and the Township Board granted the abatement. When asked where the biggest focus of redevelopment should be there was much discussion including M-59, Telegraph Road, and Dixie Highway, however, the consensus focused on the area immediately around Dixie Highway and Telegraph Road because of the recent road improvements in this area. The EDC and the sub-committee engaged in some conversation regarding the appropriateness of rezoning certain properties to guide or spur economic development. Both groups thought this was a good thing. When asked if the EDC should have a more active role in the economic development of the Township the answer was yes. The sub-committee asked about the rules and regulations of the EDC and when is someone available for a tax abatement or a revenue bond. The EDC indicated that there are not formal rules of the EDC regarding tax abatements because the Township Board is actually the body that approves the abatement. As far as revenue bond there are some controls defined by law. The sub-committee indicated that it has been discussed that Waterford needs to establish policies and procedures for all processes and administer them consistently. The EDC agreed that consistent policies and procedures are definitely beneficial, but was not aware that they were not currently, being enforced consistently. When asked about the formation of a Downtown Development Authority (DDA), the EDC indicated that they had not really been involved in the any discussion regarding the establishment of one in Waterford, however, they did believe it would be a good thing for Waterford

III. Next Meeting.

The group thanked the EDC for their time and reconvened to the second floor to discuss the next meeting of the sub-committee. The next meeting will be held on July 26, 2001.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

ECONOMIC DEVELOPMENT SUBCOMMITTEE MEETING MINUTES

Date: **26 July 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 2-1**

Present: **Scott Dougherty**
Ted Taylor
Shawn David
Mark Kellenberger, Planner II

I. Call to Order.

Staff called the meeting to order.

II. Discussions.

The group was given maps of the Township and instructed to identify areas of the Township that, in their opinion, should be focused on for economic development activities and identify any economic development tools that could be used in those areas. They were instructed to look at the Township as a whole and identify large areas of concern but also to consider development of things such as road improvements, sidewalks, etc, that could spur or aid future development

III. Next Meeting.

The group set the next meeting date for August 9, 2001, and then adjourned.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

ECONOMIC DEVELOPMENT SUBCOMMITTEE MEETING MINUTES

Date: **9 August 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 2-1**

Present: **Chairman Scott Hudson**
Judy Kennedy
Scott Dougherty
Ted Taylor
Shawn David
Mark Kellenberger, Planner II

I. Call to Order.

II. Discussions.

The group discussed the maps that they had identified areas in need of economic development and items that would help promote economic development. While there were many areas of interest the following areas and items were consistently identified by members of the group:

- The areas at the entrances into the community (Union Lake/Cooley Lake/Williams Lake, M-59/Williams Lake, M-59/ Telegraph, Telegraph/Dixie, Walton/Silver Lake, Dixie Highway/Andersonville)
- The area around the Airport (not just abutting properties)
- Allow mixed use developments (commercial and residential)
- Summit Place Mall
- Individual areas of redevelopment (Andersonville/ Airport area, Elizabeth Lake Road east and west of M-59, Union Lake Area)
- Strip redevelopment along M-59, Telegraph Road and Dixie Highway.
- Williams Lake Road Industrial Properties
- Industrial zoning imposing on residential property
- Lack of buffer between commercial and residential property
- Under-utilized industrial properties (industrially zoned property being used for commercial or office uses)

Other items were discussed and staff took note of them and indicated that they would be compiled into goals and objectives that would be discussed at the next meeting

III. Next Meeting.

The next meeting will be August 23, 2001, in the second floor conference room. This will be the groups last meeting.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

ECONOMIC DEVELOPMENT SUBCOMMITTEE MEETING MINUTES

Date: **23 August 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 2-1**

Present: **Chairman Scott Hudson**
Judy Kennedy
Scott Dougherty
Ted Taylor
Shawn David
Mark Kellenberger, Planner II

I. Call to Order.

Staff called the meeting to order. Mike Howell was present from HNTB to observe the sub-committee's finalized goals and objectives. The following is the final narrative and goals and objectives of the economic development sub-committee's meetings.

II. Discussions.

What does economic development have to do with the master plan process? Everything! In developing a master plan, a community must investigate issues regarding land use, zoning, infrastructure, economics, demographics, education, recreation, environment, and various other aspects of the community's makeup. Each aspect must be looked at individually but related to the others to obtain the overall goal of a community that is sustainable and attractive. As part of the Waterford Township Master Plan process, we have been charged with the responsibility of examining the economic development potential of Waterford Township. In discussing the various issues relating to the master plan, we have discovered that all aspects of the community contribute to the overall economic development of the Township. Proper zoning and land use determine what businesses are attracted to Waterford Township and where they can locate. The quality of life issues (recreation, open space, environment, etc…) can attract potential members of the workforce and businesses to live and conduct business within the Township. Therefore, we set out to discuss issues that affect business and the overall community and to identify tools that will assist Waterford Township in providing an attractive environment for businesses and citizens alike.

Through our discussions, we have found that one thing that all communities must embrace is the concept of consistent policies and procedures. When business representatives approach Waterford Township they must be assured of the procedures that they must follow and that they will be consistently applied. When inconsistencies appear within the procedural steps, it is no longer attractive for business to work with the community and it becomes an adversarial relationship between the business community and the Township.

Several economic tools exist that should be investigated by the Township to spur smart, sustainable economic development within Waterford Township. One very popular economic development tool is the Brownfield Redevelopment Authority. This tool provides incentives to developers for redevelopment efforts on properties that are unattractive due to contamination levels. This has proven to be a very effective tool in many Michigan communities.

Another tool that has been widely used is the Downtown Development Authorities (DDA). Some of the functions of a DDA include additional taxes to be levied, bonds to be issued, and tax dollars to be captured and used for improvements within the DDA boundary. This is a tool that must be coordinated with and approved by both state and county agencies prior to its development and must also be coordinated with any taxing authority within the DDA boundary. The communities that have used them have been able to do extensive redevelopment projects for traditional downtown and strip development.

Tax Increment Financing (TIF) is an economic development tool that allows a local government to freeze the tax base within a specific development area then uses the revenues generated by reassessment or new development to finance improvements within the district.

Last but definitely not least, probably the most important tool for Waterford Township to consider before getting involved in actively pursuing any economic development efforts, is to consider creating an economic development coordinator. This can be done in several ways to accommodate the resources of the community. One way is to create a new position that would be responsible for all economic development activities. This has its advantages and disadvantages. It is good because that one person can devote all of their time to economic development activities. The negative, if you want to perceive it that way, is that it involves the creation of a new position, which results in the expenditure of money. An alternative to creating a new position would be to create new duties for an existing position and steer the economic development projects through one channel to promote consistency with the department.

Many other things influence economic development such as communication facilities that will allow business to send and receive information safely and efficiently and transportation system to allow the members of the workforce to acquire jobs that they may not otherwise be able to consider. Other tools that could be investigated and utilized by Waterford Township include:

- Business registry

- Empowerment zones
- Tax abatements
- Business incubators
- Chamber of Commerce
- Smart zones
- Automation Alley

GOAL: Create to an environment that is conducive to the attraction, retention and expansion of businesses.

- Create an economic development coordinator

OR

- Create duties assigned to existing position to facilitate economic development activities
- Develop consistent and friendly policies and procedures
- Provide safe, high speed internet access and communication systems
- Inventory and analyze the existing economic conditions in Waterford Township
- Identify areas within the Township to concentrate economic development efforts
- Ensure consistent zoning and land use

GOAL: Market Waterford Township as a destination for business activities.

- Create an economic development coordinator
  OR
- Create duties assigned to existing position to facilitate economic development activities
- Create a business registration program
- Develop a video that showcases the resources of Waterford Township
- Investigate all economic development tools available to Waterford Township
- Work with Oakland County Economic Development and the State of Michigan Economic Development
- Work with the Oakland County International Airport
- Identify areas within the Township to concentrate economic development efforts
- Ensure consistent zoning and land use

GOAL: Identify partnership (public/private public/public) possibilities within the scope of economic development

- Adjacent communities
- Oakland County
- Waterford Business Association
- Lakes Area Chamber of Commerce
- Summit Place Mall
- Oakland County International Airport
- State of Michigan

- Various private industry

GOAL: Educate and inform all Township Boards, Commissions, Committees and Authorities on economic development tools and efforts.

- Provide detailed information sheets for the various economic tools available to Waterford Township.
- Attend seminars and conferences to gain information regarding economic development
- Create or assemble an economic development point person to address the economic development strategies for Waterford Township.

III. Next Meeting.

Since this is the last official meeting of the sub-committee there was no meeting date set other than the next meeting of the committee as a whole. All the members of the sub-committee were thanked for their time and effort

APPENDIX D: EDUCATION AND PUBLIC SERVICES SUBCOMMITTEE MEETING MINUTES

MAY 9, 2001 MEETING MINUTES----------PAGES D-2 THROUGH D-4
MAY 23, 2001 MEETING MINUTES ---------- PAGE D-5
JUNE 6, 2001 MEETING MINUTES ---------- PAGE D-6
JUNE 20, 2001 MEETING MINUTES ---------- PAGE D-7
JULY 11, 2001 MEETING MINUTES ---------- PAGE D-8
JULY 25, 2001 MEETING MINUTES ---------- PAGES D-9 THROUGH D-10
AUGUST 8, 2001 MEETING MINUTES----------PAGES D-11 THROUGH D-12
AUGUST 22, 2001 MEETING MINUTES ----------PAGES D-13 THROUGH D-15

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

EDUCATION AND PUBLIC SERVICES SUBCOMMITTEE MEETING MINUTES

Date: **9 May 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Chairperson Ellie Pinner**
Nancy Leipold
Linda Bellehumeur
Mark Kellenberger, Planner II

I. Call to Order.

Chairperson Pinner called the meeting to order and asked the members of the group to introduce themselves and give a brief background of their interest in the Master Plan process.

II. Discussions.

Staff presented copies of the agenda, discussion topics and a draft mission statement to the members of the group. The group discussed the mission statement and then began identifying major stakeholders in the areas of education and public services. These groups included the school district, historic district, park and recreation, various service clubs, library, cultural council, youth coalition, various churches, media network, ministerial, M.A.D.D., police, fire, and lakeland players. The group recognized that this was not an exhaustive list, however, it would provide a good basis for discussion. Some members of the group indicated that they have some contacts and would discuss the topic of the subcommittee with the different groups.

The group discussed creating a survey to send to various groups. The group then devised four preliminary questions that could be asked of all major groups to identify their role within the community. These included:

- What services does your organization provide?
- What aid do you need?
- What are your future plans?
- What deficiencies exist in public services?

The group discussed these questions briefly and determined that they would discussed them more at future meetings.

III. Next Meeting.

It was decided that the next meeting would be May 23, 2001 at 5:30 in the third floor conference room. The sub-committee decided that meetings at 5:30 are easier for people to attend and could be more productive. Therefore, it was decided that 5:30 would be the normal meeting time of the group.

EDUCATION AND PUBLIC SERVICE MASTER PLAN SUBCOMMITTEE MISSION STATEMENT

The Education and Public Service Master Plan Sub-committee will identify, inventory and assess the existing educational resources and public services available within Waterford Township; focus on the prominent services and features within the system; identify any deficiencies or shortcomings that may exist; provide an analysis of the existing systems; offer recommendations to eliminate any identified deficiencies and provide new and expanded services and educational opportunities; and prepare a report on the subcommittee's findings for review by the Master Plan Citizens Committee of the Whole.

EDUCATION AND PUBLIC SERVICE SUB-COMMITTEE

TOPICS FOR DISCUSSION

Identify existing educational facilities

Inventory and assess existing educational programs
- -special education
- -adult education
- -specialized education and job training

Identify prominent features within the educational system

Identify deficiencies within the educational system

Identify and evaluate existing public services
- -library
- -recreational facilities
- -hospitals
- -churches

Identify prominent public services

Identify shortcomings of the public service system

Provide recommendations to alleviate any deficiencies or shortcomings within the educational and public service system

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

EDUCATION AND PUBLIC SERVICES SUBCOMMITTEE MEETING MINUTES

Date: **23 May 2001**
Time: **5:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-2**

Present: **Chairperson Ellie Pinner**
Nancy Leipold
Linda Bellehumeur
Mark Kellenberger, Planner II
Chris Shoemaker
Pat Birchfield

Guests
Richard Cartmill (Director of Parks and Recreation)

I. Call to Order.

Chairperson Pinner called the meeting to order and introduced Richard Cartmill, Director of the Waterford Township Parks and Recreation Department.

II. Discussions.

Mr. Cartmill, Director of the Parks and Recreation Department for Waterford Township, gave a presentation to the group. The topics of discussion included the need for a community recreation center, providing services to Waterford's senior population, the quality of life in Waterford, other organizations involved in service activities, the state of Waterford's parks, and the connection with the Waterford School District. The group identified greatly with the need for a community center and the need to provide services to our seniors.

III. Next Meeting.

The group set the next meeting date for June 6, 2001, and staff announced that the speaker for that meeting would be Mr. Tom Wiseman, Director of Business Services for the Waterford School District.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

EDUCATION AND PUBLIC SERVICES SUBCOMMITTEE MEETING MINUTES

Date: **6 June, 2001**
Time: **5:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Chairperson Ellie Pinner**
Nancy Leipold
Linda Bellehumeur
Mark Kellenberger, Planner II
Bette Hartmann

I. Call to Order.

Chairperson Pinner called the meeting to order and suggested that we wait for Mr. Wiseman to arrive.

II. Discussions.

The group was prepared to have Mr. Tom Wiseman (Waterford School District) give a brief presentation regarding the current school and education system and future plans, however, Mr. Wiseman was not in attendance. The group discussed various issues relating to the public services of the Township and the how they relate to the school district. Staff indicated that he would continue to try and reach Mr. Wiseman.

III. Next Meeting.

The next meeting is scheduled for June 20, 2001.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

EDUCATION AND PUBLIC SERVICES SUBCOMMITTEE MEETING MINUTES

Date: **20 June 2001**
Time: **5:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Chairperson Ellie Pinner**
Nancy Leipold
Linda Bellehumeur
Bob Vallina, Community Planning and Development Director
Dennis Pittman
Chris Shoemaker

I. Call to Order.

Chairperson Pinner called the meeting to order and introduced Mr. Robert W. Vallina, Director of Community Planning and Development. Mr. Vallina explained that Mr. Kellenberger was unable to attend due to some personal matters, however, he would be back for the next meeting.

II. Discussions.

Mr. Wiseman from the Waterford Township was scheduled to be in attendance to discuss items relating to the School District, however, Mr. Wiseman was not in attendance. The group discussed several issues relating to the school including the relationship between school and township and the school's community role beyond student education.

Linda Bellehumeur indicated that she had met with Deputy Chief Jehle and discussed some of the master plan topics with him. Deputy Chief Jehle had indicated to Ms. Bellehumeur that traffic safety is obviously very important to the Police Department. He would like to see a reduction in the speed limit on M-59.

The group concluded the meeting with some discussion about the survey Mr. Kellenberger was preparing.

III. Next Meeting.

The next meeting will be July 11, 2001.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

EDUCATION AND PUBLIC SERVICES SUBCOMMITTEE MEETING MINUTES

Date: **11 July 2001**
Time: **5:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Chairperson Ellie Pinner**
Nancy Leipold
Linda Bellehumeur
Mark Kellenberger, Planner II
Dennis Pittman
Chris Shoemaker
Pat Birchfield

I. Call to Order.

The meeting was called to order by Chairperson Pinner and she introduced Nancy Smith, Director of the Waterford Township Library.

II. Discussions.

Nancy Smith, the Director of the Waterford Township Library, gave an excellent presentation to the group. Nancy had indicated that the school has six mini-branches including the Inn at Cass Lake, Cantebury, Fox Manor, Whispering Woods, Lakeland Place, and the Senior Center. These branches are all staff by residents not by Township Employees. These mini-branches are in addition to the main library (next to Town Hall) and the branch at the CAI (Williams Lake Road). Nancy had indicated that much assistance is provided to the library by the Friends of the Library. She had also indicated the desire to have to part-time people dedicated to operating a bookmobile.

The Township Board of Trustees also serves as the Library Board. In 1992, the Township approved one (1) mil for library improvements. That bond will be up for renewal in August of 2002. The library would like to expand with an 8,000 to 10,000 sq. ft. addition. The existing building is approximately 25,000 sq. ft. Twenty-one thousand (21,000) square feet is occupied by the library and 4,000 sq. ft. is occupied by the Parks and Rec. Department. In addition to the public library, Nancy and her staff also operate the school library system. There are no libraries at Manley and Fourtowns and Mott High School is in need of a new library.

The group was very appreciative of the information that Nancy provided and thanked her for her time.

III. Next Meeting.

The date and time for the next meeting was discussed. It will be the 25th and the Boy Scouts will give a presentation.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

EDUCATION AND PUBLIC SERVICES SUBCOMMITTEE MEETING MINUTES

Date: **25 July 2001**
Time: **5:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Chairperson Ellie Pinner**
Nancy Leipold
Linda Bellehumeur
Mark Kellenberger, Planner II
Dennis Pittman
Chris Shoemaker
Pat Birchfield

I. Call to Order.

Chairperson Ellie Pinner called the meeting to order and indicated that representatives from the Boy Scouts were present and would give a presentation to the group.

II. Discussions.

Three representatives from the Boy Scout organization were present. Jessica Lindsey is the District Executive and she was accompanied by Brian Brooks, and Dave Eyl. The three of them gave a tremendous amount of information regarding the Boy Scouts. The organization is divided into three groups:

- 6-11 year olds Cub Scouts
- 11-18 year olds Boy Scouts
- 14-21 year olds Venturing

The Venturing group is co-ed and is not as structured as the other two groups. Venturing is organized as more of a specialization and often involves more adventurous activities, such as, rock climbing. The organization also has a program called Explorer Posts. This provides career exploration through job shadowing and mentoring. This program often involves police, fire and medical fields. They have also involved the Cultural Council for music and dance, and the airport for aeronautics.

As with most community groups, funding is a major concern of the Boy Scout organization. Approximately 20% of the Boy Scout funding comes from the United Way, other sources include popcorn sales, Friends of Scouting, corporate support, local businesses, service clubs, government and administrators.

Two majors problems that the organization faces is a lack of commitment of people to volunteer time and the lack of vocational training. The organization indicated that it is often.

difficult to reach the 14-21 year olds. They also identified that the two biggest areas that the township could assist is marketing and recognition.

The group asked many questions, clarifying some of the issues that were discussed. A suggestion was made that to get some of the 14-21 year olds involved the venturing activities could be marketed as a latch key type program.

III. Next Meeting.

The next meeting was set for August 8th and then the meeting was adjourned.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

EDUCATION AND PUBLIC SERVICES SUBCOMMITTEE MEETING MINUTES

Date: **8 August 2001**
Time: **5:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Chairperson Ellie Pinner**
Nancy Leipold
Linda Bellehumeur
Mark Kellenberger, Planner II
Dennis Pittman
Chris Shoemaker
Pat Birchfield

Guests
Honorable Judge Phyllis McMillen
Tom Wiseman, Waterford School District

I. Call to Order.

The meeting was called to order.

II. Discussions.

We had two guests at this meeting. The Honorable Judge Phyllis McMillan of the 51st District Court and Tom Wiseman from the School District. Judge McMillen gave a brief description of the Court related community activities such as treatment resolution, dispute resolution, and criminal prosecution. Within Waterford Township, alcohol is the drug of choice. The Court is involved with the Perfect Solutions program which deals with alcohol, drug and substance abuse. The Coalition for Youth organization has two programs (Project for Success and In-Step) that provide valuable services to the Waterford area.

Judge McMillen identified a major shortcoming within Waterford as the lack of recreational activities and a teen safe house. Activities and resources such as dances, a pool, skate park, and some type of transportation to allow non-driving youth opportunities are desperately needed. Facilities for plays, concerts, and dances are severely lacking. Waterford Township should investigate career and job training for area youth, the number of liquor establishments (102 in Waterford), and aesthetics of the community for reducing the activities that are detrimental to a healthy, vibrant community.

The group had many questions for Judge McMillen and a small discussion took place, however, in an effort to give time to Mr. Wiseman, the discussion was cut short.

Mr. Wiseman started his discussion where Judge McMillen had left off, talking about aesthetics. He stated that community government should create standards for architecture and design. He also indicated that partnerships are extremely important. Mr. Wiseman stated that the schools are the center of the community and they provide many of the recreational activities for area youth. In addition to the traditional educational provisions, the school district also provides latchkey and senior services. He continued that the programs of the Parks and Rac. Department rely heavily on the school system. He also stated that the need for a pool is evident and that the school district is investigating their options. When asked how long it would be before pools were in the schools, Mr. Wiseman did not have a specific time frame but did indicate that it would be sometime before that goal could be realized. A brief discussion period followed Mr. Wiseman's presentation.

III. Next Meeting.

Before the meeting adjourned the next meeting date was set for August 22, 2001. This will be our final meeting.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

EDUCATION AND PUBLIC SERVICES SUBCOMMITTEE MEETING MINUTES

Date: **22 August 2001**
Time: **5:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Chairperson Ellie Pinner**
Nancy Leipold
Linda Bellehumeur
Mark Kellenberger, Planner II
Dennis Pittman
Chris Shoemaker
Pat Birchfield

I. Call to Order.

The meeting was called to order and it was stated that this was the final meeting of the sub-committee.

II. Discussions.

The sub-committee members discussed much of what we had learned throughout the past few weeks and come up with this final narrative and goals and objectives.

The topic of Education and Public Services is very expansive and must account for the public and private education system and facilities, the services (or lack of services) that are provided to the residents of Waterford Township. As a group we had several meetings and were fortunate to have several members of the educational system and service sector of the Township make presentations and discuss issues and concerns relating to the Township as a whole. Overall, Waterford Township is served quite well by the existing school system and service organizations. There are, however, deficiencies do exist within this facet of the Township. As a group, we offer the following as an analysis of what we have discovered as part of our research.

College opportunities within Waterford Township are provided for by the Highland Lakes Campus of Oakland Community College. The existing public school system is served by 17 elementary schools, 3 middle schools plus 1 alternative middle school, 2 high schools and 3 alternative high schools. The school district also provides many other support services (career, family, senior, etc…) in addition to the educational programs. There are nine private schools within the Waterford Township boundary which include elementary, middle and high school opportunities.

The public service segment of Waterford Township is less documented than that of the school systems. There is not a registry for or complete list of service organizations within Waterford Township. A partial list of service organizations was obtained and a brief survey was completed to identify characteristics and issues pertaining to the different organizations (a copy of the survey is attached). Among the responses to the survey and the issues identified in the presentations to the group, the following were frequently identified as deficiencies or needs of the different groups and organizations.

- A community recreation center
- An indoor community pool
- Senior transportation
- Mass transportation
- Assistance with marketing, publicity and public relations
- More staffing/volunteers
- Expanded social programs
- Public service education
- Better cooperation, communication and collaboration between Township programs and community groups and between the community groups themselves
- Lack of space for service organizations and events
- Funding

The group identified that in addition to the different service organizations, churches provide many services to the community and should also be recognized. Surveys were sent to the Waterford Ministerial Association and twelve area churches and none were returned. Based on the information collected by the Township, there are 48 churches within Waterford Township of various denominations.

GOAL:

Assist service organizations to expand and market their current list of services.

OBJECTIVES:

- Compile an accurate, updated list of service organizations.
- Solicit materials from service organizations and incorporate them into the new resident packets.
- Actively pursue new residents to provide with the new resident packets.
- Eliminate deficiencies within the area public services

GOAL:

Provide more recreational opportunities to the citizens of Waterford Township.

OBJECTIVES:

- Create a township based recreational center
- Construct an indoor pool facility
- Install pedestrian pathways

- Preserve the area currently occupied by the Drayton Plains Nature Center
- Accommodate community groups need for space

GOAL:

Continue and strengthen the communication and relationship between the service organizations, Waterford School District, private school system and the Township.

OBJECTIVE:

- Explore existing models through the Michigan Township Association.
- Coordinate with the public relations department of the different groups

III. Next Meeting.

Since this is the last official meeting of the cub-committee there was no meeting date set other than the next meeting of the committee as a whole. All the members of the sub-committee were thanked for their time and effort.

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APPENDIX E: ENVIRONMENT SUBCOMMITTEE MEETING MINUTES

APRIL 27, 2001 MEETING MINUTES---------- PAGES E-2 THROUGH E-3
MAY 23, 2001 MEETING MINUTES ---------- PAGES E-4 THROUGH E-5
JUNE 20, 2001 MEETING MINUTES ---------- PAGE E-6
JULY 18, 2001 MEETING MINUTES ---------- PAGE E-7
AUGUST 8, 2001 MEETING MINUTES----------PAGES E-8 THROUGH E-11

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
ENVIRONMENT SUBCOMMITTEE
MEETING MINUTES

Date: 27 April 2001
Time: 6:00 p.m.
Place: Waterford Township Hall Conference Room 3-1

Present: Bette O'Shea, Chair
Bob Vallina, Community Planning and Development Director
Mary Ellen Krakauer
Bob Chase
Frederick Poehlman
Joyce Lemond

Absent: Amy Noel, Planner I

I Welcome

- Chairperson O'Shea opened the meeting and asked everyone present to introduce themselves. Mr. Vallina explained to the subcommittee that he was filling in for Ms. Amy Noel, Planner I. Ms. Noel is the staff person assigned to this subcommittee but was unable to make it tonight because she got married last Saturday and is currently on her honeymoon. Mr. Vallina passed out the meeting agenda, a draft mission statement, and a list of discussion topics for consideration.

II. Presentations

- The draft mission statement was read and there was a consensus that the statement adequately covered the goals of the committee. The subcommittee members discussed the mission statement. It was moved and supported to adopt the proposed mission statement. Motion carried unanimously. (Approved mission statement attached for the record).

  Mr. Vallina then asked the subcommittee members to think about discussion topics for upcoming meetings. Mr. Vallina suggested topics such as Lakes, the Clinton River, Wetlands, Woodlands, and the Drayton Plains Nature Center. Chairperson O'Shea suggested such topics as greenways and groundwater protection. Chairperson O'Shea asked that each member think of some pertinent topics and a list will be assembled at the next meeting. Mr. Vallina said that he would provide the information to Ms. Noel and she would prepare for the next meeting.

7:30 Meeting adjourned.

ENVIRONMENT MASTER PLAN SUBCOMMITTEE MISSION STATEMENT

The Environment Master Plan Subcommittee will review and inventory the Township's natural environment, investigate means of preserving and enhancing the environment, discuss and determine the most effective tools for protecting the environment, and prepare a report on the subcommittee's findings, environmental priorities, and proposed action items for review by the Master Plan Citizens Committee of the Whole.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
ENVIRONMENT SUBCOMMITTEE
MEETING MINUTES

Date: **23 May 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Bette O'Shea, Chair**
Amy Noel, Planner I
Mary Ellen Krakauer
Bob Chase
Frederick Poehlman
Joyce Lemond

Also Present: **Scott Hudson, Planning Commissioner**

Meeting Summary
This was the second meeting of the Environmental Subcommittee, held at Township Hall, in the 3rd floor conference room.

Introductions were made by those present, including which area of the township they lived. Mr. Hudson stated that he was not officially a member of this committee, but he thought that it was a very important committee and was invited by Ms. O' Shea to attend tonight's meeting. Ms. Noel passed out copies of the current Township zoning map and a document titled *Resource Conservation Through Community Planning*.

Ms. O' Shea went over the topics of discussion that the group discussed during the first meeting, and those topics that had been added to the original list (Copy attached for the record). Those topics were then broken down into like categories, such as water, preservation areas, and economic development. The topics list will be broken down into categories by Ms. Noel for the next meeting. Discussion took place regarding how the environment covers many areas, including housing and the impact it is having on our utilities, tax base and infrastructure. Mr. Poehlman stated that he was particularly concerned about the amount of multi-family housing within the Township and what we can do to curb future developments. Multi-family developments are a burden on our tax base and infrastructure and cause the Township to score low on number of students graduated from public schools. Mr. Poehlman stated that families in apartment and condo developments tend to move out, those students are counted as "not graduated" from the public school system and therefore lowers the figures for children graduated. There was discussion as to whether curbing multi-family housing should be a goal of the Township.

The members decided to choose topic areas that they would research. It was decided that Ms. Noel would give each member a contact for the topic they chose and some suggested questions. It was also decided that Ms. Noel would work on getting a speaker for the next meeting and dates were discussed. Members suggested each person write a brief statement about the topics stating our concerns. Ms. Noel will notify the committee when the next meeting is scheduled.

8:10 Meeting adjourned.

ENVIRONMENT
MASTER PLAN SUBCOMMITTEE
MEETING TOPIC
DISCUSSION ITEMS

Lakes
Clinton River
Wetlands
Woodlands
Groundwater Protection
Wellhead Protection
Contaminated Sites
Open Space
Environment/Economic Balance
Conservation
Drayton Plains Nature Center
Nature Preserves
Greenways

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
ENVIRONMENT SUBCOMMITTEE
MEETING MINUTES

Date: **20 June 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Bette O'Shea, Chair**
Amy Noel, Planner I
Bob Chase
Frederick Poehlman
Joyce Lemond
JoAnn Salfi

Absent: **Mary Ellen Krakauer**

Guests: **Bill Fritz, Department of Public Works**
Stacy Keith, Building and Engineering Department

Meeting Summary
This was the third meeting of the Environmental Subcommittee, held at Township Hall, in the 3rd floor conference room.

Bill Fritz discussed groundwater and drinking water protection projects, including a Wellhead Protection Plan, being conducted by the Department of Public Works. Mr. Fritz explained where our drinking water comes from and what steps his department would like to see taken to help protect our drinking source.

The committee discussed education programs for residents on what role they play and how they can improve water quality. It was also noted that information should be made available on the township's web page.

Ms. Lemond made a presentation of her chosen topic from the previous meeting, the Clinton River and its watershed. Ms. Lemond visited the Clinton River Watershed Council and talked with the educator about water quality issues, its relation to stormwater runoff, and what residents can do to improve the water quality.

Mr. Poehlman's topic of choice, groundwater and drinking water, including infrastructure, was covered by Mr. Fritz's presentation. Mr. Chase chose wetlands and he and Ms. Noel attended a one-day workshop on wetland types and their purpose and function. Mr. Chase discussed some of the things he learned at the workshop.

Amy Noel will schedule the next meeting depending on the availability of the next guest speaker.

9:10 Meeting adjourned.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
ENVIRONMENT SUBCOMMITTEE
MEETING MINUTES

Date: 18 July 2001
Time: 6:30 p.m.
Place: Waterford Township Hall Auditorium

Present: Bette O'Shea, Chair
Amy Noel, Planner I
Mary Ellen Krakauer
Bob Chase
Frederick Poehlman
Joyce Lemond

Guests: Jessica Pitelka Opfer, Watershed Planner, Clinton River Watershed Council

Meeting Summary
This was the fourth meeting of the Environmental Subcommittee, held at Township Hall, in the first floor auditorium.

Introductions were made and Jessica Pitelka Opfer of the Clinton River Watershed Council was introduced as the guest speaker for the meeting.

Jessica covered wetlands and the different categories and functions of wetland systems. The Watershed Council has worked on a project in the Stony Creek watershed identifying wetland areas and collecting some basic information about their characteristics to determine how they function and are a part of the larger creek system. Along with the physical information collected and processed in GIS, the Council reviewed each of the local communities' ordinances that related to natural areas and made recommendations for changes or updates. Mrs. Opfer answered questions about her organization, the Stony Creek project, and gave the committee ideas and suggestions about items we could look into for the updating of Waterford Township's Master Plan.

Ms. Noel presented copies of the Township's Natural Features, Wetlands, and Woodlands ordinances, along with suggested items of change or clarification, as prepared by the Township Environmental Coordinator, Stacy Keith.

It was decided that the next meeting would be on August 8th at 6:30. Ms. Noel will bring a draft list of the committees goals as discussed thus far.

8:30 Meeting adjourned.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
ENVIRONMENT SUBCOMMITTEE
MEETING MINUTES

Date: 08 August 2001
Time: 6:30 p.m.
Place: Waterford Township Hall Auditorium

Present: Bette O'Shea, Chair
Amy Noel, Planner I
Mary Ellen Krakauer
Bob Chase
Frederick Poehlman
Joyce Lemond

Meeting Summary
This was the fifth and final meeting of the Environmental Subcommittee, held at Township Hall, in the first floor auditorium.

Ms. Noel brought copies of draft committee goals and some sample policies from surrounding communities. Committee members read each goal and related policies. Comments were made for some word revisions and items that should be added. The committee discussed an open space ordinance or other provisions the Township should implement to raise funds for the purchase of land to be set aside as open space. It was suggested that the Township investigate a money donation/collection program similar to the wildlife fund check box on State tax forms. Chairperson O'Shea suggested we bring the idea to Mr. Vallina for discussion. The subcommittee then decided on the final goals and objectives for the environment subcommittee (Copy attached for the record).

Chairperson O'Shea thanked the group for their participation and all the good work and ideas that have come out of the discussions and guest presenters. This concludes the meetings of the Environment Subcommittee.

9:00 p.m. Meeting adjourned.

ENVIRONMENT
MASTER PLAN SUBCOMMITTEE
GOALS

Master Plan as the Basis

Goals
Goals are the general statements that define the direction and character of future development.

GOAL: To the maximum extend possible, maintain the abundance and quality of existing natural resources with Waterford Township, so that these ecosystems can continue to perform their vital functions, as well as aesthetics and recreation.

GOAL: Enhance and restore existing natural resources that have suffered degradation.

GOAL: Retain the unique character and the desirability of Waterford Township as a "livable community"; a place to live, work, and play, maintaining and promoting the abundance of recreation opportunities.

GOAL: Recognize the natural capacity and limitation of land to support development. Allow for a range of housing choices within the limitations in the community. Maintain a primarily low density residential community in areas where there are restrictions due to natural features, limiting soil conditions, lack of sewer and water and other urban services, and the capacity of the existing road network.

How can the Township fulfill the stated goals?

POLICIES
Policies set the framework for actin and form the basis upon which more detailed development decisions are made.

1. **Land Use Intensity**
   Guidelines governing the intensity of land use should be dependent on the natural capability of the land and existing infrastructure to support various degrees of development.

   - Low intensity land uses should be located where natural resource conditions are least capable of supporting development, existing roads are inadequate, and existing low density land uses patterns currently exist. The use of septic and wells is appropriate for low intensity land uses. Compatible land uses would generally consist of low density residential, open and agricultural land, and recreation/conservation land.

   - Medium intensity uses should be located where natural resource conditions are moderately capable of supporting development, adequate roads are accessible, and existing medium density land use patterns exist. The availability of water and sewer service should determine level of intensity. Suitable land uses would consist of medium density residential with complementary local commercial, office, public, and quasi-public uses.

   - High intensity uses require access to major thoroughfares and state highways, sanitary sewer and water service, existing medium to high density land use patterns, and natural resource conditions most capable of supporting development. High density residential, office, industrial, and general commercial land uses would be consistent for this category.

2. **Natural Resource Capability**
   All development shall respect the following natural characteristics and constraints:

Wetlands

- The protection of wetlands is essential in order to preserve water quality, stabilize stormwater runoff, recharge groundwater, and provide fish and wildlife habitat. The highest priority is for the preservation of wetlands in their natural state.

- While the actual boundaries and the significance of specific wetland areas must be determined at the time of development review, three aspects of wetland protection should be recognized in reviewing proposed development within and in the vicinity of wetland areas.
  - ✓ Wetland area boundary.
  - ✓ The adjacent buffer and fringe area.
  - ✓ The remainder of the watersheds which drains into and out of the wetland area beyond the buffer area.

Woodlands

- The conservation of woodlands is imperative to protect water and soil quality, increase air quality, buffer noise pollution, moderate local climate and storm hazards, preserve wildlife habitats, and preserve aesthetic values and community beauty.

- Development which is permitted in and around wooded areas should be planned, constructed, and maintained so that existing, healthy trees and native vegetation are preserved. The objective should be to preserve native trees rather than rely on removal and subsequent replanting. The diversity of woodland areas should be protected to ensure long-term stability, and the variety of species preserved.

Slopes

- The existing landform should be made a part of the land use planning and design. The primary objective should be preservation of the natural contours rather than alteration through mass grading

- Careful planning of slopes is necessary in order to reduce erosion, maintain stability, and control amounts and velocities of runoff.

Groundwater Protection and Recharge

- Groundwater recharge areas restore water levels in underground storage areas and supply water to lakes, rivers, and streams. Due to the reliance on wells, retention and protection of groundwater resources is important to Waterford Township and our neighbors. Since recharge areas extend beyond Waterford's boundaries, county and regional cooperation will be needed to effectively manage and protect groundwater.

- Recharge areas are best kept as open space, or low density uses, to retain as much of the permeable surface as possible. Land grading should be controlled to retain the water holding characteristics of the land. Native vegetation essential to the water holding characteristics should be preserved, or where necessary, enhanced as part of a development program.

- Recharge areas should be protected form pollution by controlling all uses that discharge wastes into the hydrogeological cycle. Especially critical to monitor are uses which handle hazardous materials that might leak or spill.

Stormwater Management and Drainage

- Protection of slopes, woodlands, and wetlands within the watershed and proper management of land use and development are essential to maintaining the quantity of storm drainage.

- Natural vegetation and topographical features along stream corridors and waterways should be preserved. Uses should be restricted to those which offer no danger of topographical disturbance to the corridor, degradation of water quality, increased runoff, sedimentation, or stream channel alteration.

- Natural vegetation and topographical features along stream corridors and waterways should be restored and/or enhanced in appropriate areas.

- Surface water runoff should not exceed the rate that occurs under existing, undeveloped conditions. Control of runoff prevents overloading of streams and long-term erosion from uncontrolled, high velocity discharges.

  - Agricultural practices should respect stream corridors and waterways and the natural drainage and runoff pattern associated with them, in concurrence with the development constraints listed above.

Natural areas

- Natural areas should be inventoried assessed for quality, location, and health, and should include species surveys by the Michigan Natural Features Inventory.

- The preservation of natural areas is essential to maintaining Waterford Township's unique heritage and character and for providing high-quality and diverse wildlife habitat.

- Restoration and enhancement of natural areas should be encouraged and carried out in order to increase environmental quality.

- Protection and management of the identified natural areas and related natural systems should be consistent with the recommendations of any reports or studies generated from resource inventories, and is best achieved through a public-private partnership.

Additional policies

- To the extent possible, provide for hazardous waste recycling and drop off points for households to prevent improper discarding of such materials.

- Abandoned wells can become carriers of pollutants into the drinking water aquifers. An effort should be made to adopt procedures to ensure abandoned wells are discovered and properly capped or removed to prevent groundwater contamination.

- The airport is a constant source of contention with township residents. Greater efforts to forge a relationship between the Township and the FAA and Oakland International should be made to address conflicts. The Township should take a more proactive role in determining items that can be enforced, such as hours of operation, and implementation of the recommendations of the noise studies.

- Provide funding to those organizations that can provide technical and educational assistance to the Township staff and residents in the areas of natural resource preservation.

- Create environmental educational opportunities for residents by providing greater access to natural areas that will incorporate interpretation centers or activities.

- Purchase open space. Use models adopted by other communities for passing a small millage that will create a fund for the purchase of open space in to be targeted to those areas identified in natural resource inventories as high priority preservation areas.

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APPENDIX F: RECREATION AND OPEN SPACE SUBCOMMITTEE MEETING MINUTES

MAY 16, 2001 MEETING MINUTES ---------- PAGES F-2 THROUGH F-3
JUNE 11, 2001 MEETING MINUTES ---------- PAGES F-4 THROUGH F-16
JULY 12, 2001 MEETING MINUTES ---------- PAGES F-17 THROUGH F-18
AUGUST 1, 2001 MEETING MINUTES---------- PAGES F-19 THROUGH F-20
SEPTEMBER 5, 2001 MEETING MINUTES ---------- PAGES F-21 THROUGH F-27

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
RECREATION AND OPEN SPACE SUBCOMMITTEE
MEETING MINUTES

Date: **16 May 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Sandra Werth, Chair**
Amy Noel, Planner I
Dennis Griffin
Leo Landry
Jan Eathorne

Absent: **Donald Ukrainec**
Donald Stone
Donald Andrews

I Welcome

- Chairperson Werth opened the meeting and asked everyone present to introduce themselves. Ms. Noel passed out the meeting agenda, a draft mission statement, and a list of discussion topics for consideration.

II. Presentations

- The draft mission statement was read and there was a consensus that the statement adequately covered the goals of the committee. It was decided that members would review it and the subcommittee would consider adopting a final mission statement at the next meeting.
- Ms. Noel then handed out a list of prospective topics for discussion at future subcommittee meetings (copy attached for the record). There was discussion as to whether state and county owned recreation areas should be included on the map provided depicting recreation areas within the township. Ms. Noel explained that these areas were not limited to Township-owned properties because recreation areas include places where citizens go for recreation purposes, that also includes bowling alleys and sports facilities. Ms. Jan Eathorne expressed her concern that the Township does not meet a quota set by the State for acres of parkland per capita. Ms. Eathorne proposed that the committee do an inventory of the existing parks.
- There was some discussion of the Drayton Plains Nature Center and their financial problems. A couple committee members stated that the township should look into purchasing the park in order to make it viable. There was further discussion of the lack of pocket parks in the township and whether there were Township or County properties that could be converted into neighborhood parks. Ms. Noel stated she would look into where Township and Road Commission properties are located. Chairperson Werth also suggested that school properties be included in the discussion of open space as many people use them for recreational purposes.
- Ms. Noel announced that she would invite Parks and Recreation Director Richard Cartmill to the next subcommittee meeting.

- 8:30 Meeting adjourned.

Recreation And Open Space Master Plan Subcommittee Meeting Topic Discussion Items

- Township Parks
- Community Recreation Center
- Lakes
- Public/Private Access
- Clinton River Trail/Pathway
- Nature Centers/Preserves
- Pontiac Lake State Recreation Area
- Greenways
- Neighborhood Parks
- Pocket Parks
- School Properties
- Bike Paths
- Sports Facilities
  - Bowling, tennis, golf, gym, etc.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
RECREATION AND OPEN SPACE SUBCOMMITTEE
MEETING MINUTES

Date: **11 June 2001**
Time: **6:00 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Sandra Werth, Chair**
Amy Noel, Planner I
Dennis Griffin
Leo Landry
Jan Eathorne
Donald Ukrainec

Also Present: **Richard Cartmill, Director Parks and Recreation**

Absent: **Donald Stone**
Donald Andrews

I. Presentations

The meeting was called to order and introductions of Richard Cartmill, Director Parks and Recreation were made as Mr. Cartmill was attending the meeting as a guest speaker.
The draft mission statement was adopted unanimously by the committee. It was moved and supported to adopt the proposed mission statement. Motion carried unanimously. (Approved mission statement attached for the record).
Mr. Cartmill discussed the status of existing recreation areas in the Township and what types of facilities the township is currently lacking. Parks and Recreation conducted a survey two years ago and gave each committee member a copy of the results of that survey (Copy attached for the record). This document will serve as a good guideline for what recreation items the residents of Waterford Township are interested in supporting. The committee will review the survey and discuss the results at the next meeting. The lack of a community recreation facility in the Township was discussed, including whom the facility would serve and how an item such as an indoor pool would be used by schools for sports purposes. The residents defeated funding for such a facility in the past.
Ms. Eathorne suggested that each park be visited so that we have a better idea of what park amenities are currently offered. Mr. Ukrainec and Ms. Werth said they would try to visit a couple of parks before the next meeting date. Ms. Noel stated that the goal of the committee is to produce a compiled list, or action items, that the committee would like included in the Master Plan as a 20-year plan. Ms. Noel stated that there needed to be long term goals, such as including in the master plan a goal to fully budget the Parks and Recreation department to adequately serve and maintain the facilities and programs that are currently in place. Mr. Ukrainec agreed that it was a valid and important goal of the township and should be included in our list of goals. For the next meeting, the committee will discuss the current language in the Township's master plan under the Recreation section and discuss what changes need to be made.

8:30 Meeting adjourned.

RECREATION AND OPEN SPACE MASTER PLAN SUBCOMMITTEE MISSION STATEMENT

The Recreation and Open Space Master Plan Subcommittee will review the Township's dedicated recreational areas and the current Recreation Plan, investigate means of preserving and enhancing the township's open space, discuss and determine the most effective tools for protecting these resources, and prepare a report on the subcommittee's findings, recreational priorities, and proposed action items for review by the Master Plan Citizens Committee of the Whole.

WATERFORD PARKS & RECREATION 1992 SURVEY INSTRUMENT AND RESULTS

Dear Waterford Voter,

On behalf of The Waterford Recreation Committee, would you take a few minutes to answer the following questions? Just circle the answer. Thank you for giving us your views.

Sincerely,
Waterford Recreation Committee

1.	Do you believe that there is a need for a Recreation Center to be used by Waterford residents of all ages?	Yes	No
2.	Would you support a millage to build and operate the recreation center?	Yes	No
3.	What facilities and activities should be in the Community Recreation Center?		
	- a swimming pool	Yes	No
	- two gymnasiums	Yes	No
	- weight room	Yes	No
	- programs for pre-schoolers	Yes	No
	- programs for young adults	Yes	No
	- programs for elementary children	Yes	No
	- programs for seniors	Yes	No
	- meeting rooms		
4.	If the Recreation Center is built, as residents of Waterford, would you be willing to pay a small fee ($1.00-2.00) each time you use the swimming pool to help pay the operating costs?	Yes	No
5.	Are you a Senior Citizen - over 60?	Yes	No
6.	Do you have children of school age?	Yes	No
7.	Have you lived in Waterford more than three years?	Yes	No

Thank you for completing this survey which is being conducted for the Waterford Community Recreation Committee by The Department of Sociology/Anthropology, Oakland University.

Please return the survey in the enclosed postage—paid envelope

Executive Summary: Waterford Recreation Survey

This survey is based upon 257 completed surveys mailed between January 22 and March 5, 1992 by the Department of Sociology, Oakland University, Rochester, Michigan to registered voters in Waterford Township.

In all, 120 persons or 46.7% agreed that a recreation center was needed; 51% disagreed that a recreation center was needed and 2.3% were not sure.

Although the differences between support and non-support voters was close, it is significant that only 15.6% of voters over **60** supported the recreation center whereas double that number (31.1%) did not agree. In contrast, 25.7% of the voters who were under **60** thought a recreation center was needed, whereas 24.1% of the voters under **60** were not in favor of the proposal.

In the sample, 84 respondents had children in school. Of this group, 56% favored a recreation center and 43.2% did not.

When asked if they would support a millage to build the center, 70.6% of the voters over **60** years of age said no, and 53.8% of those under 60 said no as well. Those groups who would support a millage consisted of 22.8% of citizens over sixty and 44.4% of those under sixty years of age.

There was strong agreement, however, that if a recreation center was to be built, an indoor swimming pool was important. Over 46% supported a pool and 52.9% were willing to pay a small fee for maintenance.

The least desirable part of a recreation center was a weight room, only 29.5% favored this. Two gymnasiums received support from 36.6% of the voters. Support for programs for young adults received support from 49%; programs for elementary children by 44.7%; programs for senior citizens received support from 45.9%. The least support for programs was for pre-schoolers: 38.1%

Slightly more than 40%~ supported the need for meeting rooms.

Of the sample, 32.7% had school age children and almost 90% lived in Waterford more than three years.

Senior citizens comprised 42.4% of the sample.

Jacqueline Scherer, PhD.
Sociology/Anthropology Department
Oakland University

March 1992

WATERFORD TOWNSHIP
SURVEY QUESTIONS

	SURVEY QUESTIONS	YES	NO	BLANK	TOTAL
1	NEED FOR A REC. CTR.	120 46.70%	131 51.00%	6 2.30%	247 100.00%
2	WOULD YOU SUPPORT A MILLAGE	91 35.40%	157 61.10%	9 3.50%	257 100.00%
3—A	A SWIMMING POOL	120 46.70%	78 30.40%	59 23.00%	257 100.00%
3—B	TWO GYMNASIUMS	94 36.60%	94 36.60%	69 26.80%	257 100.00%
3-C	WEIGHT ROOM	75 29.20%	102 39.70%	80 31.10%	257 100.00%
3-D	PROGRAM FOR PRE-SCHOOLERS	98 38.10%	85 33.10%	74 28.80%	257 100.00%
3-E	PROGRAMS FOR YOUNG ADULTS	126 49.00%	68 26.50%	63 24.50%	257 100.00%
3—F	PROGRAMS FOR ELEMENTARY CHILDREN	115 44.70%	72 28.00%	70 27.20%	257 100.00%
3-G	PROGRAMS FOR SENIORS	118 45.90%	77 30.00%	62 24.10%	257 100.00%
3—H	MEETING ROOMS -	103 40.10%	84 32.70%	70 27.20%	257 100.00%
4	WILLING TO PAY SMALL FEE FOR POOL	136 52.90%	95 37.00%	26 10.10%	257 100.00%
5	ARE YOU A SENIOR	109 42.40%	144 56.00%	4 1.60%	257 100%
6	DO YOU HAVE CHILDREN OF SCHOOL AGE	84 32.70%	169 65.80%	4 1.60%	257 100.00%
7	HAVE YOU LIVED IN WATERFORD MORE THAN 3 YEARS -	230 89.50%	6 2.30%	21 8.20%	257 100.00%

Final Report: Waterford Recreation Survey

Between January 22, 1992 and March 5, 1992 a total of 600 surveys were mailed to registered voters in Waterford Township. The names were randomly selected from the voter lists. A total of 257 were returned and are reported in this analysis. Additional surveys have been received but did not arrive before the final analysis was completed.

In all, 120 persons or 46.7% agreed that a recreation center was needed and 51% or 131 persons disagreed. There were 2.3% or 6 persons who left the answer blank.

Although nearly half agreed that a recreation center was needed, only slightly more than one third would vote for millage to support or build the center (35.4%). Over half, 61.1%, definitely said no to a millage. More persons over 60 said no (60.6%) to the center than people under 60 (43.1%). Senior citizens overwhelmingly said no to a millage (70.6%), and younger voters said no by 52.2%.

There was support for programs for young adults (49%), elementary children (44.7%), and for seniors (45.9%) but in no case did the support pass the half-way point.

The facilities most desired were the swimming pool (46.7%) and meeting rooms (40.1%). Least desired were two gymnasiums (36.6%) and a weight room (29.2%).

Almost 90**%** of the respondents lived in Waterford more than three years.

Senior Citizen Responses

Since 109 of the respondents were over 60**,** their answers are significant. As expected, only 7.3% of this group had children in school. Among the seniors, 60.6% did not see the need for a center, 70.6% would not support a millage. Few (37.6%) saw a need for a swimming pool or senior citizen programs (33.9%). Moreover, their voluntary comments were particularly negative, reflecting a keen desire to prevent any increase in taxes.

Under Sixty Responses

The 144 respondents under sixty saw more need for a recreation center (55.6%) but still rejected a millage increase (53.8%). They did want a swimming pool (56.9%) and were willing to pay a small fee for the pool (63.9%). Perhaps this indicates that a private contractor might be able to meet this need, or that Waterford citizens might be able to persuade Oakland County to build such a facility.

Conclusion

A campaign to build a center might stimulate more interest in a recreation center. However, the 61.1% of voters who oppose a millage to build the center represent a significant negative vote. It would be important to persuade senior citizen voters that the recreation center would benefit them. There is considerable interest in a pool and specialized programming for young adults, elementary children, and seniors. However, in no case did this interest exceed 50% of the respondents.

Jacqueline Scherer, PhD.
Department Sociology/Anthropology
Oakland University

WATERFORD TOWNSHIP SURVEY QUESTIONS
PERSONS OVER (O) OR UNDER (U) 60 YEARS OF AGE

			TOTAL SURVEYS					OF TOTAL			
	SURVEY QUESTIONS		**YES**	**NO**	**BLANK**	**TOTAL**		**YES**	**NO**	**BLANK**	**TOTAL**
1	**NEED FOR**	O 60	40	66	3	109	O 60	15.6%	25.7%	1.2%	42.4%
	A REC. CTR.	U 60	80	62	2	144	U 60	31.1%	24.1%	0.8%	56.0%
		BLANK	0	3	1	4	BLANK	0.0%	1.2%	0.4%	1.6%
		TOTAL	**120**	**131**	**6**	**257**	**TOTAL**	**46.7%**	**51.0%**	**2.3%**	**100.0%**
2	**WOULD YOU**	O 60	27	77	5	109	O 60	10.5%	30.0%	1.9%	42.4%
	SUPPORT	U 60	64	76	4	144	U 60	24.9%	29.6%	1.6%	56.0%
	A MILLAGE	BLANK	0	4	0	4	BLANK	0.0%	1.6%	0.0%	1.6%
		TOTAL	**91**	**157**	**9**	**257**	**TOTAL**	**35.4%**	**61.1%**	**3.5%**	**100.0%**
3A	**A SWIMMING POOL**	O 60	37	41	31	109	O 60	14.4%	16.0%	12.1%	42.4%
		U 60	82	37	25	144	U 60	31.9%	14.4%	9.7%	56.0%
		BLANK	1	0	3	4	BLANK	0.4%	0.0%	1.2%	1.6%
		TOTAL	**120**	**78**	**59**	**257**	**TOTAL**	**46.7%**	**30.4%**	**23.0%**	**100.0%**
3B	**TWO GYMNASIUMS**	O 60	31	45	33	109	O 60	12.1%	17.5%	12.8%	42.4%
		U 60	62	49	33	144	U 60	24.1%	19.1%	12.8%	56.0%
		BLANK	1	0	3	4	BLANK	0.4%	0.0%	1.2%	1.6%
		TOTAL	**94**	**94**	**69**	**257**	**TOTAL**	**36.6%**	**36.6%**	**26.8%**	**100.0%**
3C	**WEIGHT ROOM**	O 60	22	50	37	109	O 60	8.6%	19.5%	14.4%	42.4%
		U 60	53	52	39	144	U 60	20.6%	20.2%	15.2%	56.0%
		BLANK	0	0	4	4	BLANK	0.0%	0.0%	1.6%	1.6%
		TOTAL	**75**	**102**	**80**	**257**	**TOTAL**	**29.2%**	**39.7%**	**31.1%**	**100.0%**
3D	**PROGRAM FOR**	O 60	36	39	34	109	O 60	14.0%	15.2%	13.2%	42.4%
	PRE-SCHOOLERS	U 60	62	46	36	144	U 60	24.1%	17.9%	14.0%	56.0%
		BLANK	0	0	4	4	BLANK	0.0%	0.0%	1.6%	1.6%
		TOTAL	**98**	**85**	**74**	**257**	**TOTAL**	**38.1%**	**33.1%**	**28.8%**	**100.0%**
3E	**PROGRAMS FOR**	O 60	43	33	33	109	O 60	16.7%	12.8%	12.8%	42.4%
	YOUNG ADULTS	U 60	83	35	26	144	U 60	32.3%	13.6%	10.1%	56.0%
		BLANK	0	0	4	4	BLANK	0.0%	0.0%	1.6%	1.6%

		TOTAL	**126**	**68**	**63**	**257**	**TOTAL**	**49.0%**	**26.5%**	**24.5%**	**100.0%**
3F	**PROGRAMS FOR**	O 60	42	34	33	109	O 60	16.3%	13.2%	12.8%	42.4%
	ELEMENTARY	U 60	73	38	33	144	U 60	28.4%	14.8%	12.8%	56.0%
	CHILDREN	BLANK	0	0	4	4	BLANK	0.0%	0.0%	1.6%	1.6%
		TOTAL	**115**	**72**	**70**	**257**	**TOTAL**	**44.7%**	**28.0%**	**27.2%**	**100.0%**

WATERFORD TOWNSHIP SURVEY QUESTIONS
PERSONS OVER (O) OR UNDER (U) 60 YEARS OF AGE (cont.)

			TOTAL SURVEYS					PERCENTAGE OF TOTAL			
	SURVEY QUESTIONS		YES	NO	BLANK	TOTAL		YES	NO	BLANK	TOTAL
3G	PROGRAMS FOR SENIORS	O 60	41	37	31	109	O 60	16.0%	14.4%	12.1%	42.4%
		U 60	77	40	27	144	U 60	30.0%	15.6%	10.5%	56.0%
		BLANK	0	0	4	4	BLANK	0.0%	1.2%	1.6%	1.6%
		TOTAL	**118**	**77**	**62**	**257**	**TOTAL**	**45.9%**	**30.0%**	**24.1%**	**100.0%**
3H	MEETING ROOMS	O 60	35	40	34	109	O 60	13.6%	15.6%	13.2%	42.4%
		U 60	67	44	33	144	U 60	26.1%	17.1%	12.8%	56.0%
		BLANK	1	0	3	4	BLANK	0.4%	0.0%	1.2%	1.6%
		TOTAL	**103**	**84**	**70**	**257**	**TOTAL**	**40.1%**	**32.7%**	**27.2%**	**100.0%**
4	WILLING TO PAY SMALL FEE FOR POOL	O 60	43	51	15	109	O 60	16.7%	19.8%	5.8%	42.4%
		U 60	92	43	9	144	U 60	35.8%	16.7%	3.5%	56.0%
		BLANK	1	1	2	4	BLANK	0.4%	0.4%	0.8%	1.6%
		TOTAL	**103**	**84**	**70**	**257**	**TOTAL**	**40.1%**	**32.7%**	**27.2%**	**100.0%**
5	ARE YOU A SENIOR	O 60	109	0	0	109	O 60	42.4%	0.0%	0.0%	42.4%
		U 60	0	144	0	144	U 60	0.0%	56.0%	0.0%	56.0%
		BLANK	0	0	4	4	BLANK	0.0%	0.0%	1.6%	1.6%
		TOTAL	**109**	**144**	**4**	**257**	**TOTAL**	**42.4%**	**56.0%**	**1.6%**	**100.0%**
6	DO YOU HAVE CHILDREN OF SCHOOL AGE	O 60	8	99	2	109	O 60	3.1%	38.5%	0.8%	42.4%
		U 60	74	70	0	144	U 60	28.8%	27.2%	0.0%	56.0%
		BLANK	2	0	2	4	BLANK	0.8%	0.0%	0.8%	1.6%
		TOTAL	**84**	**169**	**4**	**257**	**TOTAL**	**32.7%**	**65.8%**	**1.6%**	**100.0%**
7	HAVE YOU LIVED IN WATERFORD MORE THAN 3 YEARS	O 60	97	1	11	109	O 60	37.7%	0.4%	4.3%	42.4%
		U 60	130	5	9	144	U 60	50.6%	1.9%	3.5%	56.0%
		BLANK	3	0	1	4	BLANK	1.2%	0.0%	0.4%	1.6%
		TOTAL	**230**	**6**	**21**	**257**	**TOTAL**	**89.5%**	**2.3%**	**8.2%**	**100.0%**

WATERFORD TOWNSHIP SURVEY QUESTIONS
PERSONS WITH (YES) OR WITHOUT (NO) SCHOOL AGE CHILDREN

			TOTAL SURVEYS					PERCENTAGE			TOTAL
	SURVEY QUESTIONS		YES	NO	BLANK	TOTAL		YES	NO	BLANK	TOTAL
1	NEED FOR.	YES	47	35	2	84	YES	56.0%	41.7%	2.4%	100.0%
	A REC. CTR	NO	73	93	3	169	NO	43.20%	55.00%	1.80%	100.0%
		BLANK	0	3	1	4	BLANK	0.00%	75.00%	25.00%	100.0%
		TOTAL	**120**	**131**	**6**	**257**	**TOTAL**	**46.70%**	**51.00%**	**2.30%**	**100.0%**
2	WOULD YOU	YES	38	44	2	84	YES	45.20%	52.40%	2.40%	100.0%
	SUPPORT	NO	53	109	7	169	NO	31.40%	64.50%	4.10%	100.0%
	A MILLAGE	BLANK	0	4	0	4	BLANK	0.00%	100.00%	0.00%	100.0%
		TOTAL	**91**	**157**	**9**	**257**	**TOTAL**	**35.40%**	**61.10%**	**3.50%**	**100.0%**
3-A	A SWIMMING	YES	51	22	11	84	YES	60.70%	26.20%	13.10%	100.0%
	POOL	NO	68	56	45	169	NO	40.20%	33.10%	26.60%	100.0%
		BLANK	1	0	3	4	BLANK	25.00%	0.00%	75.00%	100.0%
		TOTAL	**120**	**78**	**59**	**257**	**TOTAL**	**46.70%**	**30.40%**	**23.00%**	**100.0%**
3-B	TWO	YES	38	32	14	84	YES	45.20%	38.10%	16.70%	100.0%
	GYMNASIUMS	NO	56	62	51	169	NO	33.10%	36.70%	30.20%	100.0%
		BLANK	0	0	4	4	BLANK	0.00%	0.00%	100.00%	100.0%
		TOTAL	**94**	**94**	**69**	**257**	**TOTAL**	**36.60%**	**36.60%**	**26.80%**	**100.0%**
3-C	WEIGHT ROOM	YES	33	33	18	84	YES	39.30%	39.30%	21.40%	100.0%
		NO	42	69	58	169	NO	24.90%	40.80%	34.30%	100.0%
		BLANK	0	0	4	4	BLANK	0.00%	0.00%	100.00%	100.0%
		TOTAL	**75**	**102**	**80**	**257**	**TOTAL**	**29.20%**	**39.70%**	**31.10%**	**100.0%**
3-D	PROGRAM FOR	YES	36	27	21	84	YES	42.90%	32.10%	25.00%	100.0%
	PRE-SCHOOLERS	NO	62	58	49	169	NO	36.70%	34.30%	29.00%	100.0%
		BLANK	0	0	4	4	BLANK	0.00%	0.00%	100.00%	100.00%
		TOTAL	**98**	**85**	**74**	**257**	**TOTAL**	**38.10%**	**33.10%**	**28.80%**	**100.0%**
3-E	PROGRAMS FOR	YES	49	22	13	84	YES	58.30%	26.20%	15.50%	100.0%
	YOUNG ADULTS	NO	77	46	46	169	NO	42.60%	27.20%	27.20%	100.0%
		BLANK	0	0	4	4	BLANK	0.00%	0.00%	100.00%	100.0%
		TOTAL	**126**	**68**	**63**	**257**	**TOTAL**	**49.00%**	**26.50%**	**24.50%**	**100.0%**
3F	PROGRAMS FOR	YES	46	21	17	84	YES	54.80%	25.00%	20.20%	100.0%
	ELEMENTARY	NO	69	51	49	169	NO	40.80%	30.20%	29.00%	100.0%

CHILDREN	BLANK	0	0	4	4	BLANK	0.00%	0.00%	100.00%	100.0%
	TOTAL	**115**	**72**	**70**	**257**	**TOTAL**	**44.70%**	**28.00%**	**27.20%**	**100.0%**

WATERFORD TOWNSHIP SURVEY QUESTIONS
PERSONS WITH (YES) OR WITHOUT (NO) SCHOOL AGE CHILDREN (cont.)

			TOTAL SURVEYS					PERCENTAGE OF TOTAL			
	SURVEY QUESTIONS		YES	NO	BLANK	TOTAL		YES	NO	BLANK	TOTAL
3-G	PROGRAMS FOR SENIORS	YES	44	25	15	84	YES	52.4%	29.8%	17.9%	100.00%
		NO	73	52	44	169	NO	43.2%	30.8%	26.0%	100.00%
		BLANK	1	0	3	4	BLANK	25.0%	0.0%	75.0%	100.00%
		TOTAL	**118**	**77**	**62**	**257**	**TOTAL**	**45.9%**	**30.0%**	**24.1%**	**100.00%**
3-H	MEETING ROOMS	YES	39	27	18	84	YES	46.4%	32.1%	21.4%	100.00%
		NO	64	57	48	169	NO	37.9%	33.7%	28.4%	100.00%
		BLANK	0	0	4	4	BLANK	0.0%	0.0%	100.0%	100.00%
		TOTAL	**103**	**84**	**70**	**257**	**TOTAL**	**40.1%**	**32.7%**	**27.2%**	**100.00%**
4	WILLING TO PAY SMALL FEE FOR POOL	YES	54	25	5	84	YES	64.3%	29.8%	6.0%	100.00%
		NO	82	70	17	169	NO	48.5%	41.4%	10.1%	100.00%
		BLANK	0	0	4	4	BLANK	0.0%	0.0%	100.0%	100.00%
		TOTAL	**136**	**95**	**26**	**257**	**TOTAL**	**52.9%**	**37.0%**	**10.1%**	**100.00%**
5	ARE YOU A SENIOR	YES	8	74	2	84	YES	9.5%	88.1%	2.4%	100.00%
		NO	99	70	0	169	NO	58.6%	41.4%	0.0%	100.00%
		BLANK	2	0	2	4	BLANK	50.0%	0.0%	50.0%	100.00%
		TOTAL	**109**	**144**	**4**	**257**	**TOTAL**	**42.4%**	**56.0%**	**1.6%**	**100.00%**
6	DO YOU HAVE CHILDREN OF SCHOOL AGE	YES	84	0	0	84	YES	100.0%	0.0%	0.0%	100.00%
		NO	0	169	0	169	NO	0.0%	100.0%	0.0%	100.00%
		BLANK	0	0	4	4	BLANK	0.0%	0.0%	100.0%	100.00%
		TOTAL	**84**	**169**	**4**	**257**	**TOTAL**	**32.7%**	**65.8%**	**1.6%**	**100.00%**
7	HAVE YOU LIVED IN WATERFORD MORE THAN 3 YEARS	YES	69	3	12	84	YES	82.1%	3.6%	14.3%	100.00%
		NO	158	3	8	169	NO	93.5%	1.8%	4.7%	100.00%
		BLANK	3	0	1	4	BLANK	75.0%	0.0%	25.0%	100.00%
		TOTAL	**230**	**6**	**21**	**257**	**TOTAL**	**89.5%**	**2.3%**	**8.2%**	**100.00%**

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
RECREATION AND OPEN SPACE SUBCOMMITTEE
MEETING MINUTES

Date: **12 July 2001**
Time: **6:00 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Sandra Werth, Chair**
Amy Noel, Planner I
Dennis Griffin
Leo Landry
Donald Ukrainec
Leslie Kettren, HNTB
John Andrews

Also present: **Brian, Oakland County Parks and Recreation**

I. Presentations

The meeting was called to order at 6:00 p.m.

Ms. Kettren discussed the remaining time frame of the subcommittee phase of the master plan process and reviewed the duties of the subcommittee. Ms. Kettren said that the subcommittees should work toward completing their work by Labor Day, with the subcommittee establishing draft goals and objectives, with a white paper on these to follow. A representative of Oakland County Parks and Recreation, discussed County parks and public facilities and presented a list of suggestions for the committee to consider. Areas in which the County can not keep up with demand is banquet, convention and swimming facilities, as they are in high demand. Brian also suggested keeping the elderly in mind for recreation as that age group is growing rapidly.

II. Key Findings of Past Master Plan

- Total Publicly-owned recreation lands = 600 acres (Township & School District)
- Total State and County owned recreation lands = 675 acres
- Relationship with schools is integral to the recreation needs of the township and provides gym and classroom activities on a regular basis *(the gym and classrooms at the old Waterford High School have been lost as the property has been redeveloped privately)*
- Schools play an important role as neighborhood park facilities. Duplicating these facilities in neighborhoods would be highly inefficient and too expensive.
- The need for a community recreation center will grow with the growing and aging population.
- There will be increased pressure to provide for seniors
- Township should provide increased limited natural open space areas for activities such as nature study

<u>Population trends for the future</u>

- Family size continues to decrease (current household size is 2.45)
- Family size expected to drop to 2.3 by 2020
- Households with children expected to **decrease 8%**
- Households without children expected to **increase** 22%

- Population in the age group of 55 to 64 expected to **increase** by 80% (County)
- All age groups under 30 expected to decrease in next 20 years.

III. Open Space Tools for Consideration

Ms. Noel discussed the establishment of protection districts and the overlay zoning tools that have been successfully used in other communities. These tools provide for rational flexibility while working to strengthen a community's zoning enforcement.

IV. Draft Goals

Ms. Noel asked each subcommittee member to begin thinking about the goals and objectives that they would like to see incorporated into the new master plan. Ms. Noel stated that at the next meeting, the subcommittee would begin developing their list of desired goals and objectives.

♦ 8:30 Meeting adjourned.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
RECREATION AND OPEN SPACE SUBCOMMITTEE
MEETING MINUTES

Date: **1 August 2001**
Time: **6:00 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Sandra Werth, Chair**
Amy Noel, Planner I
Dennis Griffin
John Andrews

I. Presentations

The meeting was called to order at 6:00 p.m.

Ms. Noel explained that she would facilitate tonight's subcommittee brainstorming session. The goal of the exercise is to come up with a list of recreation and open space goals and objectives that everyone in attendance is comfortable in sending to the Committee of the Whole. Ms. Noel conducted the exercise, with the following goals and objectives recommended by the subcommittee to be included in the Township's new master plan as the result of its research and findings.

Goals that are pertinent to open space and resource preservation:

GOAL: Maintain the abundance and quality of existing natural resources with Waterford Township, and acknowledge the resulting limitations to development.

GOAL: Enhance and restore existing natural resources that have suffered degradation.

GOAL: Retain the unique character and the desirability of Waterford Township as a "livable community"; a place to live, work, and play, maintaining and promoting the abundance of recreation opportunities.

GOAL: Allow for a range of housing choices within the limitations in the community. Maintain a primarily low density residential community in areas where there are restrictions due to natural features, limiting soil conditions, lack of sewer and water and other urban services, and the capacity of the existing road network,.

How can the Township fulfill the stated goals?

- **Full funding to fulfill the needs of current recreation areas and programs**

- **Community-wide accessible pedestrian pathway**
  - Riverwalk, bike paths, sidewalk improvements

- **Funding for a Community Recreation Center**
  - To include swimming, auditorium, classrooms, etc.

- **Increased passive recreation in nature areas**
  - Better access to places such as Elizabeth Lake Woods Nature Preserve through foot trails and observation sites

- **Better Utilization of the Clinton River**
  - increased opportunities for active and passive recreation that involves the use of or the resources of the communities streams

- **Increased walkability and access to existing parks**

- **Preservation of Open Space**
  - Close the loop holes in cluster building options to include upland areas in open space design (as most developers want to leave wetlands as the only open space).
  - Explore new tools for open space preservation and analyze areas in our current Ordinance that can be improved. (including innovative site developments that allow for the protection of natural areas)
  - Include areas for play, public gardens and trails in residential site developments
  - Encourage the private preservation of open space through scenic easements and dedications
  - Encourage and preserve links of natural and open areas to natural resource areas, schools, parks and recreation areas.

- **Inventory natural resource areas**
  - wetland, and associated upland inventories to catalog high quality natural resource areas that could be designated as areas that need protection. (analysis of wetlands, natural resource complexes by the County, and species inventories by the Michigan Natural Features Inventory)
  - Educate community on the function and importance of wetlands and open space areas.
  - Incorporate interpretation points or signage along wetland or high quality natural areas to point out to the public what is going on, or what they are encountering.
  - Township needs a better wetland identification map, and needs to make it visible to the public (displayed at Township Hall).
  - Look at ways to strengthen our natural feature buffer Ordinance.

♦ 8:30 Meeting adjourned.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
RECREATION AND OPEN SPACE SUBCOMMITTEE
MEETING MINUTES

Date: **5 September 2001**
Time: **6:00 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Sandra Werth, Chair**
Amy Noel, Planner I
Dennis Griffin
Leo Landry
Donald Ukrainec
John Andrews

I. Presentations

The final meeting of the subcommittee was called to order at 6:00 p.m.

Ms. Noel explained that she has taken the subcommittee's discussions and draft goals and objectives to create a draft white paper report for the subcommittee. The subcommittee reviewed Ms. Noel's work and moved to adopt the report as presented. Motion carried unanimously. (Approved white paper attached for the record).

8:30 Meeting adjourned.

CHARTER TOWNSHIP OF WATERFORD
Master Plan Project 2001

RECREATION AND OPEN SPACE SUBCOMMITTEE
Final Subcommittee Report

5200 Civic Center Drive
Waterford, Michigan 48329-3773
248-674-6255
Fax: 248-674-4097
http://www.twp.waterford.mi.us/

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I. INTRODUCTION

The Charter Township of Waterford is a community of over 73,000 people, located in the center of Oakland County, and covers approximately 36 square miles. Waterford has an abundance of water resources, including 34 lakes and the Clinton River. Due to the numerous lakes, Waterford was developed in several different stages with vacation and cottage-style homes first occupying the lakefronts and adjacent neighborhoods from about the 1920's until the 1950's. The next wave of development, in the 1970's and 1980's, was primarily commercial and industrial and occurred along two state trunk highways, which run approximately east to west. This phase of development coincides with the establishment of most of the existing Township parks. This community is entering a third phase of development with the creation of new subdivisions and condominium complexes on what is left of the undeveloped lands. Along with the resurgence of building residential homes come new issues with regard to available recreation lands, as well as the loss of valuable open space. The Recreation and Open Space Master Plan Subcommittee was organized to discuss and research this area which is important to the overall health of every community.

Like many communities in Oakland County, Waterford Township is striving to balance the development needs of the community with the preservation of open and recreational spaces. While the Township has numerous parks offering a variety of interests, many areas need to be improved to fulfill the needs of this growing and changing community. The citizens of Waterford understand that all communities go through life cycles, and as such, policies and program services must also change so that we are better able to service the residents and protect our existing natural resources for future generations.

This committee of volunteers looked at Waterford's existing park network, distribution, and activities offered. Information has been gathered about existing conditions, population, demographic changes, visioning workshops, land use exercises, residential surveys and interviews with key community persons. Over the last year, many of the committee members also participated in a walkability study of the Township. Two major areas of thought were explored and ideas expanded as a result of the subcommittee meetings: Greater diversity and distribution of park recreation areas, and preservation of natural open space areas.

II. RECREATIONAL ACTIVITIES

Waterford Township is home to numerous and varied public and private recreational opportunities. There are currently fourteen Township-owned parks, covering approximately 640 acres, as well as State and County owned recreational facilities. A Recreation Master Plan was completed in 1997, which documented the park and recreational facilities available to township residents. The Park Plan identified a list of goals that summarized many of the issues that were identified in the public participation workshops to fulfill the growing recreational needs of the community. The Master Plan Recreation and Open Space Subcommittee identified many of the same concerns and goals for the recreational needs of the community, as well as ideas on open space preservation. The recreational goals and projects are as follows:

Goal 1: Retain and Enhance Waterford's Unique Character

- Make Waterford Township a "livable community"; a place to work, live, and play while maintaining and promoting the abundance of recreation opportunities.

Goal 2: Community Recreation Center

A full-scale recreation center to service all age levels utilizing one central campus.

- Provide indoor swimming for purposes of recreation/fitness, therapeutics, and school district swim teams.
- Auditorium/theater stage for cultural events and conferences
- Gymnasium to include fitness center.
- Meeting and classrooms for enrichment and community programming
- Banquet facilities.
- Outdoor walking track or nature interpretive trail (possibly around Clam Lake).
- Playground for younger children.
- Propose a phased plan of development to provide the necessary funding to build a facility with all the amenities required to create a center that will serve the community for the foreseeable future.

Goal 3: Riverwalk Pedestrian Pathway

- Complete the path to the greatest extent possible from Dixie Highway south to Cooley Lake Road.
- Seek alternative funding sources from grants and foundations whenever possible to complete project.
- Explore opportunities to link Riverwalk with other trails in adjacent communities: West Bloomfield Rail-Trail, Independence Township.
- Work with Oakland County to get Riverwalk included in county map of trails and greenways network.

Goal 4: Increase opportunities for passive recreation and access to natural areas

- Better access and utilization of Elizabeth Lake Woods.
- Nature and interpretive footpaths and observation decks or boardwalks.
- Signage to identify natural features and areas such as the numerous river and stream crossings, watershed boundaries.
- Improve pedestrian access to Nature Center by way of Riverwalk path.

Goal 5: Utilization of the Clinton River

- Educate community about the presence, importance and threats to the Clinton River.
- Sponsor annual River Day projects, such as cleanups, bank restoration, re-vegetating eroded areas with native plants, canoe trips.

Goal 6: Increased Access/Use of Existing Parks.

- Provide better walkable access to existing parks.

- Upgrade playground equipment
- Explore opportunity for dog parks, or using a portion of an existing park for purpose of pet run areas.
- Study the use and utilization of existing parks to determine whether there are opportunities for change of use. For example, could any of the parks be converted to specialized parks for pets, gardens, lighted ball fields, etc.

Goal 7: Playgrounds in Neighborhoods

- Investigate opportunities for small playground or picnic areas within or adjacent to neighborhoods.
- Provide assistance to neighborhood associations in order to organize and control parks to serve their neighborhood.
- Research feasibility of making changes to the appropriate sections of the Ordinance to regulate park areas in new developments.

III. OPEN SPACE PRESERVATION

Waterford Township is the largest township in Oakland County by population size. Estimates of built area put Waterford in the ninetieth percentile range, and consequently, there is little natural area left to protect. However, Waterford is fortunate to have beautiful and rare natural areas that should be given priority in establishing conservation areas. One such example currently protected by the Township is Elizabeth Lake Woods Nature Preserve, located between Elizabeth Lake Road and Cooley Lake Road. The Clinton River flows through this nature preserve, which is home to rare and endangered species, important riparian wetlands, and forested uplands. Studies continue to support the need for open and natural spaces to the overall health and vitality of a community. Parks, open space and nature preserves positively impact surrounding property values, have great economic benefits by attracting and retaining businesses and residents, and help protect our water quality and quantity of runoff.

Waterford Township has a small window of opportunity to take steps to insure that our remaining high quality natural areas are protected. Results of surveys and workshops continually express the residents' interest in protecting our natural areas and making Waterford a place where people want to live and take pride in their community. As Waterford works to plan for the next twenty years, this subcommittee has identified goals and projects that will sustain Waterford Township as a livable community.

Goal 1: Protect Existing Natural Areas

- Maintain the abundance and quality of existing natural resources and acknowledge the resulting limitations to development.

Goal 2: Enhance and Restore Natural Areas

- Restore those places that have suffered degradation.
- Promote the use of native plant species to preserve the integrity of our natural history and combat the influx of exotics that threaten our community.

Goal 3: Restrict Development Intensity Based on Land Carrying Capacity

- Allow for a range of housing choices within the limitations of the land. Maintain a primarily low-density residential community in areas where there are restrictions due to natural features, limiting soil conditions, lack of sewer, water and other urban services, and the capacity of the existing road network.

Goal 4: Promote Open Space Developments

- Research current Ordinance requirements and correct or improve areas that need clarification.
- Make open space developments more desirable to developers.
- Make the preservation of uplands a requirement in open space and cluster developments.
- Include areas for play and community gatherings in new residential developments.
- Explore new and innovative tools and site design standards for open space preservation.
- Encourage private preservation of open space through conservation easements, dedications and stewardship programs.
- Encourage and preserve links of natural areas to other parklands, schools, and recreation areas (natural resource corridors).

Goal 5: Inventory All Natural Resource Areas

- Analyze natural areas to catalog high quality natural resource areas that should be designated as priority areas for protection. (Involve local wetland consultant, Oakland County Environmental Stewardship Program, Michigan Natural Features Inventory).
- Survey and map wetland areas in the Township for the purposes of compiling inventory data of the wetland type and function, and create a more comprehensive wetland map.
- Educate the community and Township staff on the importance and function of wetlands. Make wetland information and maps more readily available and displayed in township offices.
- Research strengthening the language of the natural feature buffer ordinance and woodland ordinance to preserve natural vegetation.

IV. VISION STATEMENT

Waterford Township has numerous recreational and natural area amenities that are greatly enhanced by the availability of several State, County and School District owned land and park facilities. While there are great opportunities available to Township residents, the Recreation and Open Space Subcommittee identified a variety of issues to address the changing needs of the community. Through discussions and research, the Subcommittee has developed an extensive list of goals and implementation projects to address areas where the Township is in need of improvements. These goals represent the desires of the community to provide its residents with adequate recreation facilities and activities while preserving our rapidly disappearing natural areas. Not only do these places provide areas of recreation for residents and habitat for wildlife, open and natural spaces increase our

quality of life by providing retention of stormwater and easing flooding concerns, filter our water and air, buffer noise and light pollution, and provide the aesthetics needed for a healthy economy. In order to make Waterford Township truly a place of destination, to retain our residents and business owners, and maintain a high standard of living, recreation and open space must become an integral part of the planning process.

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CHARTER TOWNSHIP
OF
WATERFORD
OAKLAND COUNTY
MICHIGAN

MASTER PLAN
2003 – 2023
APPENDICES
G THROUGH W

Moving Forward Together

APPENDIX G: TRANSPORTATION AND COMMERCIAL CORRIDORS SUBCOMMITTEE MEETING MINUTES

MAY 3, 2001 MEETING MINUTES---------- PAGES G-2 THROUGH G-4
MAY 14, 2001 MEETING MINUTES ---------- PAGES G-5 THROUGH G-6
MAY 29, 2001 MEETING MINUTES ---------- PAGES G-7 THROUGH G-9
JULY 16, 2001 MEETING MINUTES ---------- PAGES G-10 THROUGH G-20
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CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE TRANSPORTATION AND COMMERCIAL CORRIDORS SUBCOMMITTEE MEETING MINUTES

Date: **3 May 2001**
Time: **6:30 p.m.**
Place: **Waterford Township Warming House**

Present: **Larry Mitchell, Chairman, (no email available)**
Bob Vallina, Community Planning and Development Director
Debbie Harris
Charlotte Burckhardt
Christine Dion
Bob Sharrard
Warren Runyan

I Welcome

- Chairman Mitchell opened the meeting and asked everyone present to introduce themselves.

II. Presentations

- Bob Vallina, Township Community Planning and Development Director, provided the subcommittee members with a draft mission statement. He asked that the subcommittee members consider the draft and make any revisions they might like to see to the draft. The subcommittee members discussed the mission statement. It was moved and supported to adopt the proposed mission statement. Motion carried unanimously. (Approved mission statement attached for the record).
- Mr. Vallina then handed out a list of prospective topics for discussion at future subcommittee meetings (copy attached for the record). The subcommittee briefly discussed some of these issues in connection with some of their personal experiences. Mr. Vallina stated that if there were any other topics that members would like to add, please send them to him and he would add to future meeting agendas.
- Mr. Vallina explained to the subcommittee that the meeting time, date, and frequency were up to them to decide. He asked that the members consider what meeting schedule they would like to follow. Chairman Mitchell then asked subcommittee members what they thought. The members agreed that the day and location for today's meeting works for them. It was suggested that 6:00 p.m. would be preferable to 6:30 p.m. Therefore, it was moved and supported to hold subcommittee meetings on Mondays, preferably the first and third Mondays, at 6:00 p.m. in the Warming House.

III. New Business

- Next Meeting–May 14, 2001, 6:00 p.m. in the Waterford Warming House.

TRANSPORTATION AND COMMERCIAL CORRIDOR IMPROVEMENTS MASTER PLAN SUBCOMMITTEE MISSION STATEMENT

The Transportation and Commercial Corridor Improvements Master Plan Subcommittee will review and inventory the Township's transportation infrastructure, investigate means of improving and enhancing the transportation network, discuss and determine the most effective tools for integrating the Township's transportation needs with citizens' quality of life needs, discuss and develop concepts and tools for improving and enhancing the aesthetic and functional qualities of the Township's commercial corridors, and prepare a report on the subcommittee's findings, transportation and commercial corridor improvement priorities, and proposed action items for review by the Master Plan Citizens Committee of the Whole.

TRANSPORTATION AND COMMERCIAL CORRIDOR IMPROVEMENTS MASTER PLAN SUBCOMMITTEE MEETING TOPIC DISCUSSION ITEMS

Roads
Sidewalks
Railroad
Airport
Mass Transit
Commercial Corridor Development Tools
Vacant and Underutilized Property
Aesthetic Improvements

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE TRANSPORTATION AND COMMERCIAL CORRIDORS SUBCOMMITTEE MEETING MINUTES

Date: **14 May 2001**
Time: **6:00 p.m.**
Place: **Waterford Township Warming House**

Present: **Bob Vallina, Community Planning and Development Director**
Debbie Harris
Charlotte Burckhardt
Christine Dion
Bob Sharrard

CALL TO ORDER

The meeting was called to order by Bob Vallina. Mr. Vallina explained that Mr. Mitchell has moved out of the community and resigned from the Planning Commission, so we will be without a chair until the Township Board appoints a replacement for Mr. Mitchell.

DISCUSSIONS

It was decided to meet with the Oakland County Road Commission on the second Monday of June, which is the 6th. Mr. Vallina stated that he will check with the Capital Improvements subcommittee and find out if they will be willing to meet jointly on this topic.

The subcommittee members then discussed at length some of the problem areas that they have observed during their travels throughout the Township. The following areas were identified:

1. Telegraph at Dixie Highway is very narrow under the railroad tracks. The problem of widening this road due to the railroad tracks was discussed.

2. Subdivision roads should be addressed in the future plan for a thorough and ongoing preventative maintenance program.

3. Hospital Road between Pontiac Lake Road and M-59 and a small section of Lochaven Road are not paved. Paving these roads may be an alternative to alleviating traffic congestion on nearby roads. The possibility of a traffic light at Hospital Road and M-59 was discussed.

4. M-59, Dixie Highway, and Telegraph were discussed and the possibility of replacing the left turn lanes with a boulevard-style improvement to eliminate accidents in the left turn lanes.

5. Solutions for subdivision cut-throughs were discussed. Cut-throughs would be discouraged by improving the main roads and developing alternative configurations of existing roads. As an example, Warren Drive was discussed. One section of this road is zoned industrial and the other section is zoned residential. There is a lot of truck traffic that drives through the residential area. This road should be made two so there is a residential road off of Frembes and an industrial road off of Dixie Highway.

6. Williams Lake Road straightening at Airport Road was discussed. The possible solution of Williams Lake Road replacing the KinderCare and Credit Union was brought up. The difficulty will be in finding the funds to acquire this land and possibly relocate the businesses.

Other areas of discussion included the current condition of Williams Lake Road at M-59 and the proposed changes, and the problems with mass-transit in Waterford.

Homework Assignment!: Pinpoint current problem areas!

NEXT MEETING

The next meeting will be held Tuesday, May 29, 2001 at 6:00 p.m. at the Warming House. Debbie has volunteered to bring healthy munchies!

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE TRANSPORTATION AND COMMERCIAL CORRIDORS SUBCOMMITTEE MEETING MINUTES

Date: **29 May 2001**
Time: **6:00 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Bob Vallina, Community Planning and Development Director**
Debbie Harris
Charlotte Burckhardt
Christine Dion
Bob Sharrard
Warren Runyan
Bob Smith

I. Welcome

The meeting was called to order at 6:00 p.m.

II. Discussions

- An extensive discussion continued from the last meeting pinpointing the subcommittee's suggested top road problem areas and suggested improvement priorities in Waterford Township. In addition to the six areas listed in the last meeting minutes, the subcommittee also came up with the following road problem areas:
- Sashabaw/Dixie Highway Intersection is controlled by a three-way traffic signal, although a driveway to Burke's Lumber is aligned with the intersection. The drive should be closed or a four-way traffic signal installed to reduce the risk of accidents at the intersection.
- The future realignment of the M59/Williams Lake Road intersection was discussed and the question was raised whether installing a new section of four-lane Williams Lake Road between two sections of two-lane Williams Lake Road would create congestion problems.
- The subcommittee raised the question of extending Williams Lake Road north from Gale Road up through the state land and connecting it with Nelsey Road to create a north-south corridor from M59 to Dixie Highway.
- Widen Hatchery Road between Dixie Highway and Airport Road.
- Straighten Frembes Road near the intersection of Frembes and Dixie Highway.
- Pave the unpaved section of Lochaven Road.
- Slow and reduce traffic along Voorheis Road between M59 and Telegraph Road through the installation of traffic calming measures.
- Encourage the reduction of traffic on Silver Lake Road after the Telegraph Road extension is completed by removing the left turn green arrow from the traffic signal at the Silver Lake Road/Dixie Highway intersection.
- Install a bypass connection street between the Telegraph Road extension and Kennett Road.
- Widen North Cass Lake Road between M59 and Pontiac Lake Road.
- Improve the traffic flow through the Cass Lake Road/Elizabeth Lake Road/M59 triangle.

- The subcommittee also asked that the goal of improving and beautifying the railroad right-of-way be included as one of the goals of the Master Plan and that staff submit written correspondence to Canadian National requesting their approval and assistance in achieving this goal.
- Another suggestion was made to create a driver's education video to be used and shown frequently on the community cable station.

III. Tasks

Staff to submit written correspondence to Canadian National requesting their approval and assistance in improving and beautifying the railroad right-of-way as part of the committee's goals.

IV. Next Meeting

The next meeting will be held jointly with the Capital Improvements Subcommittee, Monday, June 11, 2001, at 6:30 p.m., in the Third Floor Conference Room of Township Hall. The focus will again be on Waterford's roads, with a representative from the Road Commission for Oakland County present to answer questions from members.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

TRANSPORTATION AND COMMERCIAL CORRIDORS SUBCOMMITTEE MEETING MINUTES

Date: **16 July 2001**
Time: **6:00 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Steve Reno, Chair (no email available)**
Bob Vallina, Community Planning and Development Director
Charlotte Burckhardt
Christine Dion
Bob Sharrard
Warren Runyan
Bob Smith

I. Welcome

The meeting was called to order at 6:00 p.m.

II. Discussions

- An extensive discussion was conducted on the topic of sidewalks and bikepaths in Waterford. Ms. Dion explained her family's personal experience with the dangers of not having pathways for bikes and pedestrians. Her uncle was killed while riding his bike on the road because there were no bikepaths. Ms. Dion's family was instrumental in going to the Township Board and getting funding to begin the bikepath project.
- Mr. Vallina discussed the history of the construction of the Township's existing bikepath system. Mr. Vallina explained how the Township once had a millage for the construction of the bikepath system. That millage was allowed to expire by the Township in the mid-1980s. Mr. Vallina also briefly discussed the development of the sidewalk systems in the Township and the disparity in age and condition. Mr. Vallina discussed the current requirements in the zoning ordinance for developers to install sidewalk as part of any new development. Mr. Vallina stated that the primary problem for completing the bikepath system, expanding sidewalk in existing neighborhoods, and improving existing sidewalk is that of funding. Mr. Vallina gave the subcommittee a copy of a memo that Building and Engineering Director Doug Bradley provided to the Township Board (copy attached) with recommendations for resolving the funding issue. The Township Board did not act at that time. Mr. Vallina explained that the Michigan Supreme Court has ruled that Townships are responsible for maintaining bikepath and sidewalk in road right of way, even though they have no jurisdiction over that right-of-way.
- The subcommittee suggested the creation of a map that shows all sidewalks, bikepaths, the location of all schools, and the location of all parks and recreation areas.
- Mat Gaberty from the Road Commission should be contacted for traffic volume and accident information.

- A suggestion was made to initiate a program where citizens could purchase decorative park benches at a reduced price. The objective would be to place these near sidewalks for pedestrians to stop and rest, thereby encouraging walkability.
- The subcommittee wholeheartedly supports all efforts to make Waterford more walkable.
- The subcommittee also asked that the goal of improving and beautifying the railroad right-of-way be included as one of the goals of the Master Plan and that staff submit written correspondence to Canadian National requesting their approval and assistance in achieving this goal.
- Another suggestion was made to create a driver's education video to be used and shown frequently on the community cable station.
- Mr. Sharrard went out and reviewed many of the roads in Waterford. He prepared a written report on his recommendations (copy attached for the record).

III. <u>Next Meeting</u>

The next meeting will be held Monday, August 6, 2001, at 6:00 p.m., in the Third Floor Conference Room of Township Hall. The topic will be commercial corridor improvements. Mr. Vallina will ask Steve Hayward of HNTB to attend and provide information on this topic.

Katherine G. Innes, Supervisor
Betty Fortino, Clerk
Dee A. Minton, Treasurer
Todd T. Birkle, Trustee
Paul E. Deni, Trustee
Bette O'Shea, Trustee
Jean A. Scott, Trustee

WATERFORD
A CHARTER TOWNSHIP

5200 Civic Center Drive
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DEPARTMENT OF BUILDING & ENGINEERING

Douglas W. Bradley, P.E.
DIRECTOR

Brent A. Gibson
Ass't. Director of Building

Robert A. Merinsky
Ass't. Director of Engineering

MEMORANDUM

January 28, 1999

To: Sidewalk Committee

From: Douglas Bradley - Building and Engineering Director

Re: Existing Sidewalk Repair Funding

Using the aerial photographs and street mapping information available through the GIS system the Engineering staff has determined that approximately 500,000 linear feet of sidewalk currently exists within the public rights-of-way in Waterford Township. The condition of this existing sidewalk varies from new to completely non-functional. Of this total length of sidewalk we estimate that between 15% and 20% (75,000 to 100,000 linear feet) of this sidewalk is deteriorated or damaged to the point that it presents a hazard to persons using the sidewalk.

The courts have ruled that the local municipalities are liable for injuries resulting from use of sidewalks, therefore to protect the Township's exposure it is necessary that we take action to repair the deteriorated and damaged sidewalks. Assuming a repair cost of $15 per linear foot, the cost to repair the currently deteriorated and damaged sidewalks is estimated between $1,200,000 and $1,500,000.

Currently the Township has no funds set aside for sidewalk repair or construction. A mechanism must be developed to provide the necessary funds to repair the sidewalks. This could take the form of a Township wide special assessment or an increase in the millage assessed on properties. Whatever form it takes I would suggest that an aggressive and proactive approach is taken so that all deteriorated and damaged sidewalk can be repaired within 5 to 7 years. This will require that approximately $250,000 be made available for sidewalk repairs each year.

To accomplish the necessary repairs I proposed that a survey be conducted of all the existing sidewalk within the Township. All sidewalk would be rated for deterioration, damage, safety and serviceability. This survey would then be used to prioritize the areas.

for repair, thus insuring that the worst sections are repaired first. The cost to perform the suggested survey of the existing sidewalk and prioritize the repairs is estimated at $8,000.

I would also recommend that the funding system be setup to allow for the expansion of the sidewalk system. This will provide the Township with funds to construct new walks to provide for safe pedestrian travel throughout the Township.

To plan for the expansion of the sidewalk system I recommend that all public rights-of-way be surveyed and rated for their sidewalk constructability. Factors effecting the constructability of sidewalk include topography, available right-of-way, trees, ditches, wetlands and drainage. This rating would be done on a street by street, block by block basis. This constructability rating would then be used along with other considerations such as proximity to schools, businesses and existing sidewalk systems to develop a sidewalk master plan for the Township. The areas with the greatest benefit and lowest cost would be the first constructed. The cost to perform this survey and establish the constructability rating for all non-sidewalked public rights-of-way is estimated at $12,000.

WATERFORD ROADS AND TRANSPORTATION

By
Robert C. Sharrard,
Transportation & Commercial Corridor Improvements Subcommittee Member

Andersonville Road (Historic District): Presently two lanes; concrete
No suggestions or recommendations

DIXIE HIGHWAY

Presently five lanes, blacktop

Suggestions: Widen and lighten by installing center boulevard areas with lights and left turn stacking lanes
Service drive full length with limited ingress/egress. Service drive to be minimum of ten feet from travel lanes (traffic lanes)

Long Range Goal: Mass rapid transit system (monorail or vacuumatic system) from Southfield along Telegraph Rd. to Flint (Saginaw Street then up to Saginaw, Bay City to Midland, etc.).

AIRPORT ROAD

Presently two lane concrete

Suggestions: Widen to four lanes plus center boulevard greenbelt with left turn stacking lane; service drive on both sides or to restrict all business off Airport Road. Widen Airport Rd. from Williams Lake Rd. to Elizabeth Lake Rd.

WILLIAMS LAKE ROAD

Suggestions: Widen this road to four lanes (two lanes in each direction) with center boulevard area and left turn lanes.

Long Range Goal: Mass rapid transit system (monorail or vacuumatic system) spur from Dixie Highway to Highland Road/Airport Road.

FREMBES ROAD

Presently two lane (concrete and blacktop)
Road from Walton Boulevard to Hatchery Road

Suggestions: Repave road, widening to thirty feet but having roadway a two-lane road. Improve intersection at Dixie Highway but removing commercial buildings at corner to provide better vision of approaching traffic on Dixie Highway with right turn lanes and right turn arrows; right turns only at intersections.

TRANSPORTATION

Roads – Starting in the North

Andersonville Road

A two lane concrete road; should be and will need to be widened out from Airport Road to Waterford-Springfield Township line. It should be two lanes in each direction with a boulevard area and left turn stack up lanes. This approach should eventually be carried out

to Davisburg. The roadway (Andersonville) from Dixie Highway to Airport Road, being within the Waterford Historical area should be left as a two road with the possibility of Airport Road being rerouted around the historical area.

Airport Road

This two lane road should be widened to four lanes, two in each direction, with a center boulevard and left turn stack lanes from Andersonville Road south to Elizabeth Lake Road, with no left turns permitted at any intersection. It should be rerouted from the railroad tracks westerly to join up at the intersection at Williams Lake Road, at the point where the Credit Union office now stands (2000/2001)

Walton Boulevard/Williams Lake Roads

These two roadways running generally east-west and turning generally south, should be two lanes in each direction with a center boulevard area with left turn stack up lanes or turn around lanes. "No Left Turns" directly at major intersections to be allowed, only right turns. The widening of these roads should be carried out from Pontiac/Waterford city line to Highland Road then south off Highland Road to Cooley Lake Road with no direct left turns permitted.

Sashabaw Road

This road is a two-lane blacktop road with a strong challenge because of curves and lakes. It could be widened out to four lanes with very limited left turns and these should be turn around lanes.

Dixie Highway from Oakland/Telegraph Road intersection north

This roadway presently is a five-lane road, two lanes in each direction with a left turn lane and is a blacktop surface.

This roadway should be redesigned to have a boulevard area with left turn stack up lanes with a service drive on both sides so that direct entry to all business is eliminated. The service route should be considered for the future, but the boulevard area and limited left turn stack up lanes should be considered to be built within the next five to seven years at the intersection of Sashabaw Road. This intersection should be redesigned and possibly relocated for better safety.

The intersection s of Williams Lake Road, Walton Boulevard, Frembes, Hatchery, Watkins Lake Road, Scott Lake Road, and Silver Lake Road should all be redesigned for right turns only then left turn stack up lanes (turn around lanes). The same should apply at the Telegraph Road/Dixie Highway/Oakland Avenue intersection "no left turns" directly.

Telegraph Road

This road is a four-lane road from Elizabeth Lake Road to Dixie Highway and five-lane south of Elizabeth Road to just south of Voorheis Road.

The northern portion of the roadway, Elizabeth Lake Road north, should be widened to four wider lanes with a center boulevard area with a left turn around lane near Dixie Highway and right turn circle for northbound traffic at County Center Drive.

The railroad viaduct on Telegraph Road just South of Dixie Highway should be replaced with wide highway lanes and razed to a 15-ft. to 18-ft. height from road surface to lower bridge surface.

Hatchery Road

Hatchery Road is a two lane blacktop road from Dixie Highway to Williams Lake Road, with some turns between Airport Road and Williams Lake Road.

This road should be a "one way" street from Frembes Road to Dixie Highway with the area from Frembes to Crescent Lake Road being widened out to four lanes, with the area from Crescent Lake Road to Airport Road being widened to five lanes. At the intersection of Frembes Road, there should be a "right turn only", possibly with a green arrow replacing the present left turn arrow.

The intersection of Crescent Lake Road should continue to have a left turn lane with a turn signal also. There should be a right turn lane from Hatchery to Crescent Lake Road with control devices within the headquarters (Fire) built to control signals at this intersection.

Watkins Lake Road

Watkins Lake Road is a two-lane blacktop road running from Pontiac Lake Road to Dixie Highway, with an offset intersection at Scott Lake Road and a 90° turn at Covert Road. This is a blacktop surface that should be made a "one way" road from Pontiac Lake Road to Dixie Highway.

Scott Lake Road

Scott Lake Road is a two-lane concrete road running from Elizabeth Lake Road to Dixie Highway. T6his road needs all concrete redone. The pavement is severely cracked its full length. It should be widened out to two lanes in each direction with a boulevard and left turn lanes.

Silver Lake Road

This road is a two lane blacktop road which has beautiful oak trees providing a beautiful shady drive on hot summer days and should remain "as is" – there is a narrow bridge near Walton Boulevard which is programmed from replacement in 2002.

Pontiac Lake Road

Pontiac Lake road is a two lane blacktop road running from Telegraph Road to Williams Lake road with a gravel section from Williams Lake Road to Highland Road (M-59) within White Lake Township. This section should be closed.

Pontiac Lake Road should be widened to four lanes, two in each direction with a center boulevard and left stack up lanes for its entire length.

Elizabeth Lake Road

This is a five lane concrete surface with two lanes in each direction and a left turn lane. This road should be widened ten feet and include a center boulevard section with left turn stack up lanes (turn around) to Cooley Lake Road. From Cooley Lake Road to Williams Lake Road, this road is a blacktop surface that should be widened to four lanes (possibly five lanes).

Huron – M-59 – Highland Road

This road is presently a five-lane road, two lanes in each direction with a center left turn lane. This road should be widened to four feet on both sides and a boulevard area in the center with left turn stack up lanes. Limitations of all direct left turns at all intersections all the way to the Waterford/White Lake Township lines.

Voorheis Road

This road is a two lane concrete road from West Huron Road (M-59) to Telegraph Road on the Township's southeast corner. This road needs a complete rebuilding. Part of this road near Telegraph Road lies within the City of Pontiac.

This road should be turned into a "one way" road from Huron Street to Telegraph Road.

Cass Lake Road

North Cass Lake Road runs from Highland Road to an area within subdivision. This two lane road, presently, I believe, does not have enough traffic to justify any action at this time.

South Cass Lake Road, from Highland Road to Keego Harbor City limits should be widened to four lanes, two in each direction with a center boulevard area with left stack up turn around lanes. The bridge near the south Township line should be replaced with a wider bridge.

Crescent Lake Road

This roadway is a two-lane road running from Elizabeth Lake Road to Hatchery Road with a left turn lane at M-59 (Highland Road). Right and left turn lanes at Hatchery Road.

This road must be widened out promptly from Highland Road to Hatchery Road.

This road should be reconstructed to four lanes, two in each direction with a boulevard area with left stack up turn around lanes.

From Highland Road to Elizabeth Lake Road, this area of road should have a traffic study done to ascertain the amount of traffic on this road. Present traffic may not justify widening at this time. Eventually, this road will require widening.

Hospital Road

Hospital Road from Pontiac Lake Road to Highland Road needs to be paved with future foresight being that at some point in time, this road may need to be widened; therefore, the road right-of-way width should be considered to that end and planned for when paving project is done.

Lochaven Road

This two-lane road needs paving in an area not paved at this time (2201). This has not been done up to this date because of the unstable base. This area has a high water table with low surrounding land. A traffic study should be done to see if the amount of the traffic on this road could justify expense.

Cooley Lake Road

This road runs from Elizabeth Lake Road to Cooley Lake Road south. This road needs widening to two lanes in each direction with a boulevard section with left turn around stack up lanes in all boulevard areas, proper trees, shrubs and flower planting should be required with underground sprinkler systems being installed to maintain beautification of the Township.

Transportation

In this area, the short-term solution would be bus service on major arteries. The long-term solution would be a monorail system that would be the same as Disney World and Seattle, Washington, has. This system should provide service from the Airport to the bus/train terminal in Pontiac, all G.M. and D.C.A.G plants and offices in Auburn Hills and Lake Orion.

It is further recommended that such a system (monorail or vacuumatic) should be a statewide operation, covering all major cities as well as many smaller communities.

Feeder lines by bus in areas that the monorail/vacuumatic system would not be economically feasible to build. The major routes for the monorail/vacuumatic system could be over the present interstate system such as I-75, I-94, I-96, etc., connecting Detroit, Pontiac, Flint, Saginaw, Bay City to Mackinaw from Pontiac along M-59 to Mt. Clemens (east) to I-96 at Howell. A line from Detroit to Lansing to Grand Rapids/Muskegon.

Detroit to Chicago along I-94, Detroit to Port Huron, etc.

Such a system could be built when the economy is extremely low (recession or depression) when people need work paid for through all government bodies.

This plan has been offered by Robert C. Sharrard, June 6, 2001, age 75.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE TRANSPORTATION AND COMMERCIAL CORRIDORS SUBCOMMITTEE MEETING MINUTES

Date: **6 August 2001**
Time: **6:00 p.m.**
Place: **Waterford Township Hall Conference Room 3-1**

Present: **Steve Reno, Chair**
Bob Vallina, Community Planning and Development Director
Charlotte Burckhardt
Christine Dion
Bob Sharrard
Warren Runyan
Bob Smith
Steve Hayward, HNTB
Mike Howell, HNTB

I. Welcome

The meeting was called to order at 6:00 p.m. Mr. Vallina introduced Steve Reno, new Planning Commissioner and Road Commission employee. Mr. Reno will be the chair of this subcommittee for the brief remainder of this process.

II. Discussions

- Mr. Vallina passed out a copy of a short publication put out by the Urban Land Institute, Ten Principles for Reinventing America's Suburban Strips. Mr. Hayward briefly went through the ten principles outlined:
  - Ignite Leadership and Nurture Partnership
  - Anticipate Evolution
  - Know the Market
  - Prune Back Retail-Zoned Land
  - Establish Pulse Nodes of Development
  - Tame the Traffic
  - Create the Place
  - Diversify the Character
  - Eradicate the Ugliness
  - Put Your Money (and Regulations) Where Your Policy is

Mr. Hayward then focused more specifically on establishing pulse, or neighborhood, nodes and taming the traffic. Mr. Hayward described these as critical to Waterford if their goal is to improve their commercial corridors. Destinations that would not be a burden on traffic capacity can be created throughout the community with the concept of neighborhood nodes. Traffic can be slowed down with the traffic calming methods that are now being explored and implemented in the planning and engineering fields. Mr. Hayward also discussed the concept of access management and how important it is to reduce the number of driveways that enter and exit onto the main thoroughfares.

- The subcommittee discussed the potential of creating boulevard-like commercial corridors on M-59, Dixie Highway, and Telegraph with underground utilities, less driveways, and removal of all nonconforming signage. The members expressed support for this concept. Some concerns about boulevards creating more traffic problems than benefits were stated. Mr. Vallina explained to the subcommittee that this concept is a goal. There is extensive traffic engineering that would have to be undertaken to determine the feasibility of implementing this concept. It might be found that only sections of our main thoroughfares could handle a new configuration. The important step is to find out if the concept itself is worth exploring. The subcommittee agreed that the concept of commercial corridor improvements is a goal that needs to be part of the master plan.
- The next meeting will be devoted to developing goals and objectives for this subcommittee. Mr. Vallina asked each subcommittee member to think about what they want to see as the subcommittee's goals and objectives.

III. Next Meeting

The next meeting was set for Monday, August 13, 2001 at 6:00 p.m. in the Township Hall third floor conference room. This will be the final subcommittee meeting. HNTB will conduct an exercise with the subcommittee members to determine the goals and objectives that the subcommittee members want to forward to the Master Plan Committee of the Whole for consideration as master plan goals.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE TRANSPORTATION AND COMMERCIAL CORRIDORS SUBCOMMITTEE MEETING MINUTES

Date: 13 August 2001
Time: 6:00 p.m.
Place: Waterford Township Hall Conference Room 3-1

Present: Steve Reno, Chair (no email available)
Mark Kellenberger, Planner II
Charlotte Burckhardt
Christine Dion
Bob Sharrard
Warren Runyan
Bob Smith
Steve Hayward, HNTB

I. Welcome

The meeting was called to order at 6:00 p.m.

II. Discussions

Mr. Hayward explained that he would facilitate tonight's subcommittee brainstorming session. The goal of the exercise is to come up with a list of transportation and commercial corridor goals and objectives that everyone in attendance is comfortable in sending to the Committee of the Whole. Ms. Burckhardt submitted the following list for consideration as the starting point for proposed subcommittee goals and objectives:

1. Improve north-south mobility in Waterford Township.
   - A. Investigate the extension of Williams Lake Road north to Nelsey Road.
   - B. Pave Hospital Road.

2. Improve the physical appearance and functional character of the major corridors in the township, especially Dixie Highway and M-59.
   - A. Develop an overlay district for Dixie Highway and M-59 to address signage, lighting, and landscaping.
   - B. Develop an Access Management program to reduce the number of curb cuts along Dixie Highway and M-59 and implement using site plan review and other tools.
   - C. Require Traffic Impact Studies for major traffic generating uses over a specific size (either acreage, square footage, or number of units).
   - D. Work with MDOT to investigate the possibility of boulevarding Dixie Highway and M-59 and implement if feasible.
   - E. Work with Oakland County Planning & Economic Development Services to aggressively market vacant and underutilized parcels, with special attention given to Dixie Highway from Silver Lake Road to Telegraph.
   - F. Create a Traffic Safety Committee that is responsible for identifying intersection improvements and other smaller scale road projects. The Traffic Safety Committee can assist the Township Board of Trustees in prioritizing the road improvement projects that are undertaken each year.

G. Contact Grand Trunk Railroad to determine if the railroad right-of-way along Dixie Highway from Watkins Lake Road to Hatchery Road can be landscaped and made into an aesthetic feature for the township.
H. Landscape key gateway locations into Waterford Township and pursue sponsorship for the purchase and maintenance of the landscape materials.

3. Enhance the walkability of Waterford Township.
   A. Implement a sidewalk connection program that connects existing sidewalks in the Township. The first priority should be given to connect sidewalks that lead to schools and parks.
   B. Develop a bike path master plan and implement it.

4. Improve transit options, especially for the elderly.
   A. Develop a community sponsored van program aimed at destination users.
   B. Investigate the need for fixed route bus service in the Township.

The rest of the subcommittee approved of all of the points that Ms. Burckhardt has listed. In addition, the committee added the following item:

5. Improve Traffic Safety
   A. Work with the Road Commission for Oakland County to improve the timing of traffic signals.
   B. Identify locations of pedestrian/vehicle/bicycle conflict and make improvements.

APPENDIX H: HISTORIC PRESERVATION AND NEIGHBORHOOD NODES SUBCOMMITTEE MEETING MINUTES

APRIL 26, 2001 MEETING MINUTES---------- PAGE H-2
MAY 21, 2001 MEETING MINUTES ---------- PAGES H-3 THROUGH H-4
JUNE 4, 2001 MEETING MINUTES ---------- PAGES H-5 THROUGH H-8
JUNE 18, 2001 MEETING MINUTES ---------- PAGE H-9
JULY 16, 2001 MEETING MINUTES ---------- PAGES H-10 THROUGH H-11
JULY 30, 2001 MEETING MINUTES ---------- PAGES H-12 THROUGH H-13
AUGUST 20, 2001 MEETING MINUTES ---------- PAGES H-14 THROUGH H-15

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

HISTORIC DISTRICT AND NEIGHBORHOOD NODES SUBCOMMITTEE MEETING MINUTES

Date: 26 April 2001
Time: 6:00 p.m.
Place: Andersonville Historic Church Meeting Room

Present:

Dean Fisher, Chairman
Larry Lockwood
Michael Franz
Dr. John Richardson
Evangeline Chase
Allan Motzny
Richard Lohff

This was the first meeting for the subcommittee, which was held at the historic church on Andersonville Road. The meeting started at 6:00 p.m.

Mr. Fisher called the meeting to order at approximately 6:10 p.m.. Mr. Fisher passed out the agenda and a "Draft" Mission Statement, which had been prepared by staff, for discussion purposes. After reviewing the mission statement, there was some discussion regarding the concept of neighborhood nodes. Staff explained the basic principles regarding this concept. Discussion continued regarding the time to be spent on the historic district vs. neighborhood nodes…
The committee requested that staff make the necessary arrangements to invite the Historic District Commission members to the next subcommittee meeting to learn more about the historic district.
The committee requested that staff provide the following information to be mailed prior to the next meeting:

Map of Historic District
Township Street Map
Sample Master Plans from other communities
Information on other historic sites within Waterford Township
List of Historic District Commission members

Discussion occurred regarding the best day, time and how often the committee would meet. It was resolved that Monday was the best day and that a combined meeting with the Historic District Commission would be beneficial to the committee for the next session.
It was further resolved that the next meeting will be, Monday, May 21, 2001 at 7:00p.m. at the church. Staff stated that arrangements would be made to invite the Historic District Commission.
Meeting Adjourned: 7:45 p.m.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

HISTORIC DISTRICT AND NEIGHBORHOOD NODES SUBCOMMITTEE MEETING MINUTES

Date: 21 May 2001
Time: 7:00 p.m.
Place: Andersonville Historic Church Meeting Room

Present:
Dean Fisher, Chairman
Larry Lockwood
Michael Franz
Allan Motzny
Richard Lohff

Guests: Dorothy White, Waterford Historic District Commission Chairperson
Joy Smith, Waterford Historic District Commission Member
Dick Cartmill, Waterford Township Parks and Recreation Director, Waterford Historic District Commission Secretary

The second meeting for this subcommittee was again held at the historic church on Andersonville Road. The meeting started at 7:00 p.m.

Mr. Fisher called the meeting to order. The minutes of the 4-26-01 meeting as prepared by Mr. Lockwood were distributed among the members for review. The committee moved to accept the meeting minutes for the record.
Mr. Fisher went on to introduce the committee members to the Historic District members in attendance and welcomed them to the meeting.
Mr. Lockwood explained the reason the Historic District and Neighborhood Nodes Subcommittee was formed and gave a brief overview of the Master Plan process and how it will relate to Waterford's Historic District.
Mr. Motzny passed out an article on Historic preservation to the group. Mr. Lohff requested that a copy of the recent Walkability Study prepared by Beckett and Raeder, Inc., Planning consultants to the Township, be made available for review.
Discussion then occurred regarding the Historic District. Specific recommendations were made by the Historic District board members in attendance.
Ms. White stated that "cut- thru" traffic along Andersonville Road is a serious problem with heavy truck traffic being the worst. She suggested that signage be installed in appropriate locations along Williams Lake Rd., Andersonville Rd. and Dixie Hwy. to deter this. Mr. Lockwood will contact the R.C.O.C. to investigate this possibility.
Mr. Cartmill suggested that if sufficient R.O.W. were available along Andersonville Rd. that a boulevard would help to improve traffic flow and reduce speeds in the area. Ms. White expressed a concern over parking in the R.O.W. and that sidewalks are continuously being blocked in some areas of the District. There are also numerous locations where sidewalks are in various stages of disrepair and present a safety problem for pedestrians. This should be addressed through the Walkability Study and in combination with the Master Plan update.
Mr. Lohff suggested that the speed limit in the district should be lowered to 15 MPH. This would also help in deterring traffic to alternate routes.

Mr. Cartmill and Ms. White recommended that Historic District Signage be provide at multiple locations along the roadways leading in the the district. This would serve to identify the area and further promote this important district.
Mr. Cartmill suggested that decorative antique style street lights be installed along the major streets of the district. This would include Andersonville Rd., Airport Rd. and Dixie Hwy. Ms. White presented a concept plan for this type of lighting.
Discussion continued and Mr. Franz suggested that "traffic calming" concepts be explored for this area as identified in the Walkability Study.
Ms. Smith and Ms. White were concerned that the Township does not have an accurate record of those properties currently included in the Historic District. Mr. Lockwood will contact them in the next several weeks to compare records and prepare an accurate data base for the district.
Discussion continued over "walkability" and "accessability" in and to this area. Mr. Cartmill suggested that concrete sidewalks stamped with a brick pattern would better fit the image of the district and this should be explored. Mr. Lohff suggested that sidewalks must be barrier free and to take this into consideration when deciding on the type of walkway system to be installed. Mr. Franz will check into barrier free requirements and report back to the subcommittee. The Historic District Board members present agreed that 5ft. wide walkways located on both sides of the streets within the district would best fit the character of this historic area.
Discussion concluded and Mr. Fisher thanked the Historic District board members for coming to the meeting.
The committee resolved to table the review and ultimate adoption of the "Draft" Mission statement until it can be discussed with a full compliment of committee members. The subcommittee further agreed to set the next meeting date for Monday, June 4th at 7:00 p.m. at the church.
Meeting adjourned: 8:15 p.m.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

HISTORIC DISTRICT AND NEIGHBORHOOD NODES SUBCOMMITTEE MEETING MINUTES

Date: **4 June 2001**
Time: **7:00 p.m.**
Place: **Andersonville Historic Church Meeting Room**

Present:

Dean Fisher, Chairman
Larry Lockwood
Michael Franz
Dr. John Richardson
Evangeline Chase
Allan Motzny
Richard Lohff

Guests: **Dorothy White, Waterford Historic District Commission Chairperson**
Joy Smith, Waterford Historic District Commission Member

The third meeting for this subcommittee was again held at the Historic Church on Andersonville Road. The meeting started at 7:00p.m.

Mr. Fisher called the meeting to order. The meeting minutes from the 5-21-01 meeting as prepared by Mr. Lockwood were distributed to the members for review and approval. The committee moved to accept the meeting minutes for the record.
Mr. Richardson requested that the minutes for tonight's meeting and any future meetings along with upcoming agendas be forwarded to the committee in advance for review prior to the next scheduled meeting. Mr. Lockwood stated that this would be done.
Mr. Fisher passed out the agenda for this evening's meeting and inquired as to whether there was any further discussion on the proposed "Draft Mission Statement" that had been previously tabled. It was then, moved by Mr. Richardson, supported by Ms. Chase to adopt the Mission Statement as drafted. The motion carried unanimously. (Copy attached for the record).
Discussion then shifted to the next item on the agenda, "Questions for Community Survey". Mr. Lockwood gave a brief explanation of the subcommittee's charge as it relates to identifying topics for questions.
Discussion continued with regard to the Historic District and whether or not it would be legally possible to expand the district. Mr. Motzny, having a legal background and specializing in municipal law explained that without a property owner's consent, the Township must have identified a "public purpose" for this action and that this could be considered a "taking" of private property otherwise. The subcommittee as a whole expressed a strong interest to promote the expansion of the Historic District for those properties that would qualify.

Ms. White and Ms. Smith displayed historic maps of the district that indicated discrepancies in the district boundary. Mr. Lohff requested that copies of the maps be made available for the subcommittee to review and study. Discussion continued with regard to the differences in the maps. Ms. Smith stated that the Historic District Commission was active from 1976 – 1980, with a lapse occurring from 1980 – 1990. The Commission was revived again in 1990 and has continued to present.

Initially, a survey was conducted to determine who and what properties were interested in being a part of the Historic District. Responses were received and tabulated which identified those property owners who wanted to be included into the district and those who did not. A significant number of property owners did not respond and those properties were not included in the district. The subcommittee strongly supported the development of a new survey for the entire historic area to determine the eligibility of those properties who had failed to respond previously and to determine if there is interest from other property owners in the area that may qualify for inclusion into the district.

Mr. Motzny stated that the Historic District Ordinance could in fact be amended to require additional architectural standards necessary to maintain the historic "look" of the area.

Mr. Lohff stated that the district should have appropriate identification signage. He went on to explain that by installing signage along the major roadways that lead into the district, people would become more aware of the area and it's significance. Mr. Lohff suggested that by color coding pavement at various points entering the district and installing appropriate roadside signage, would be very beneficial to this area.

Mr. Richardson suggested that staff contact Waterford Police Chief Dean about lowering the speed limit on Andersonville Road between Dixie Hwy. and Airport Road. The subcommittee concurred that this would be a necessary "first step" in making the district more pedestrian friendly.

Discussion continued regarding sidewalks or pedestrian pathways. Mr. Lohff questioned whether or not the Township was liable for sidewalks in disrepair. Mr. Lockwood and Mr. Motzny confirmed that this was in fact the case. However, State Representative Kowall is currently working on a bill that would make public sidewalks and their maintenance the responsibility of the property owner which abut the public walkway.

Mr. Franz stated that stamped concrete or even brick pavers may not be acceptable for use as a public walkway. Disabled or handicapped individuals may not find this type of walkway treatment sensitive to their needs. Mr. Lockwood stated that staff would check into the issue with the A.D.A. and report back to the subcommittee. Mr. Franz went on to state that more information on the subject of "Traffic Calming" would be helpful in studying the concept of "Neighborhood Nodes".

Ms. Chase stated that many commercial strip centers are currently vacant or not completely occupied. This is a concern that should not be overlooked. She went on to question whether or not the neighborhood nodes concept will promote more strip center development? Mr. Lockwood stated that a representative from the Township's Master Plan Consultant, HNTB, would be invited to the next meeting to discuss the neighborhood nodes concept in greater detail.

As discussion concluded, Mr. Lohff requested that staff investigate the status of the single family home located at the corner of Andersonville Road and Steffens. The house has not been occupied for many years and is currently used only for storage purposes. Mr. Lockwood stated that staff would research the status of this property and report back to the subcommittee.

The subcommittee concluded the meeting by identifying a number of questions that would be passed on to HNTB for inclusion in their upcoming community survey. Mr. Lockwood will prepare the questions and forward them on to HNTB.

It was resolved to schedule the next meeting for Monday, June 18, 2001 at 7:00 p.m. The primary topic for discussion at that meeting will be Neighborhood Nodes.

Meeting Adjourned: 8:55 p.m.

HISTORIC DISTRICT AND NEIGHBORHOOD NODES MASTER PLAN SUBCOMMITTEE MISSION STATEMENT

The Historic District and Neighborhood Nodes Subcommittee will work to review and critique related general ordinances of the Charter Township of Waterford, relative to Waterford's Historic District, explore existing and potential planning and zoning tools to promote the protection, preservation, rehabilitation, restoration and reconstruction of sites, buildings and or structures within this district.

Furthermore, this subcommittee will identify potential areas within the Township to promote the development of community neighborhood nodes that enhance and strengthen Waterford as an accessible and pedestrian friendly community. Upon completion of these findings and recommendations, a report will be prepared and presented to the Master Plan Citizens Advisory Committee of the Whole.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
HISTORIC DISTRICT AND NEIGHBORHOOD NODES SUBCOMMITTEE MEETING MINUTES

Date: **18 June 2001**
Time: **7:00 p.m.**
Place: **Andersonville Historic Church Meeting Room**

Present:

Dean Fisher, Chairman
Larry Lockwood
Michael Franz
Dr. John Richardson
Evangeline Chase
Allan Motzny
Richard Lohff
Carla Spradlin
Leslie Kettren, HNTB
Kathleen Fitzpatrick, HNTB

Guests: **Joy Smith, Waterford Historic District Commission Member**
Jennifer Radcliff, Michigan Historic Preservation Network

The fourth meeting for this subcommittee was once a gain held at the Historic Church on Andersonville Rd. The meeting started at 7:00pm

Mr. Fisher called the meeting to order and distributed the evening's agenda. Mr. Lockwood introduced Ms. Kettren and Ms. Fitzpatrick and gave a brief overview on the subject of Neighborhood Nodes. Ms. Kettren defined the meaning of a Node as it pertains community development. "A Neighborhood Node is a focal point, a building or area of interest within the community".
Discussion continued as Ms. Kettren asked the committee members to identify Waterford "Neighborhood Nodes". Staff provided a base map for the group who then started to mark and I.D. these types of areas and or landmarks. As many of the existing subdivisions surround the lakes of our community, The "Lake" itself in many instances can be considered a node or focal point for a particular area. As this exercise continued, committee members were asked to conduct a field visit of a selected area to photograph those features that they would consider prominent or a focal point. This fieldwork would take place between now and the committee's next meeting.
Ms. Radcliff stated that the World War II era constitutes a 50-year period for potential historic sites. She suggested that the group be aware of these "Heritage Sites" as we travel the Township.
As discussion concluded, it was resolved to set the next meeting date for Monday, July 16, 2001. The meeting would again be held at the Church.

Meeting Adjourned: 8:40 p.m.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE HISTORIC DISTRICT AND NEIGHBORHOOD NODES SUBCOMMITTEE MEETING MINUTES

Date: **16 July 2001**
Time: **7:00 p.m.**
Place: **Andersonville Historic Church Meeting Room**

Present:

Dean Fisher, Chairman
Larry Lockwood
Michael Franz
Dr. John Richardson
Evangeline Chase
Allan Motzny
Richard Lohff
Carla Spradlin

Guests: **Dorothy White, Waterford Historic District Commission Chairperson**
Joy Smith, Waterford Historic District Commission Member

The fifth meeting for this subcommittee was once again held at the Historic Church on Andersonville Road. The meeting started at 7:00 p.m.

Mr. Fisher called the meeting to order and passed out the evenings' agenda. The group had originally planned on discussing the results of the Photo Survey on Neighborhood Nodes in our community. Six (6) committee members volunteered to cover areas of the Township with the task of photographing "community centers", focal points of the Township and areas that attract people or are gathering spots. As the results have not been finalized for this project, it was agreed to postpone the discussion to a future meeting.
Mr. Lockwood suggested that the group discuss in greater depth the concept of Heritage Site Preservation. Several of the members began to identify unique Heritage sites throughout the community. A few of the sites mentioned were, Bill Moore's home located at the intersection of Scott Lake Rd. and Watkins Lake Rd., The heritage farm house at the corner of Grayton and Grixdale streets, The Blain Island Log Cabin, Robert Snow's historic farm house on Scott Lake Road, Mark Reis's historic home on Maceday Lake Road, the historic farm house on Williams Lake Road near Whitfield Road , the Bradley home on Scott Lake Road (southeast corner of the lake) and the several historic homes on Silver Lake Road. It was recognized that there were many more sites throughout the Township that should also be added to this list.
Discussion continued with regard to how these sites could be identified and it was suggested that the Township Assessing Department would have these records. The group as a whole felt that the idea of identifying our Heritage Sites in Waterford Township was important and tied directly to our community makeup.

Ms. Spradlin suggested that local businesses could be approached for donations to help sponsor, protect and preserve these types of heritage sites. In addition, appropriate signage could be designed/developed that would help to better identify these properties.
Mr. Richardson suggested that once the Historic District boundary has been reevaluated (for the immediate Historic District area) that the residents be notified that they will be included in this area and subject to the standards that govern and protect the structures found in the district.

It was recommended that the Historic District be included as a District within the Zoning Ordinance in order to provide more regulation and strength to the existing guidelines already in place.

As discussion concluded, it was resolved to set the next meeting date for Monday, July 30, 2001 @ 7:00 p.m. The meeting would again be held at the church.

Meeting Adjourned: 8:40 p.m.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
HISTORIC DISTRICT AND NEIGHBORHOOD NODES SUBCOMMITTEE MEETING MINUTES

Date: **30 July 2001**
Time: **7:00 p.m.**
Place: **Andersonville Historic Church Meeting Room**

Present:

Dean Fisher, Chairman
Larry Lockwood
Michael Franz
Dr. John Richardson
Evangeline Chase
Allan Motzny
Richard Lohff
Carla Spradlin

The sixth meeting for this subcommittee was held at the Historic Church on Andersonville Road. The meeting was called to order by Mr. Fisher at approximately 7:05 p.m.

Mr. Fisher passed out the evenings' agenda and recognized that representatives from HNTB had not yet arrived. The meeting minutes from 7-16-01 were passed out to the group for their review and approval. The minutes were subsequently approved.

Ms. Spradlin distributed information obtained from Michigan's Historic Sites website which confirmed that Waterford's Historic District is recognized at the State level having first been settled in 1819. Discussion continued and Mr. Richardson passed out a sample Historic Tour booklet produced by the City of Farmington, which depicts historic sites throughout their community and narrative information on each. The group agreed that this type of effort is very helpful in promoting and informing the citizens of these types of community landmarks.

Ms. Spradlin also provided a copy of Oakland Counties, Historical and Cultural Resource Inventory Map. This map identifies sites throughout the county that are of historic and cultural significance. It was suggested that a similar map for Waterford could also be produced. The group proceeded to discuss various points of interest that were identified on the map relative to Waterford Township. There was further discussion on the Historic Ordinance for the City of Farmington. Ms. Spradlin questioned whether there were design guidelines within the ordinance. Mr. Richardson stated that it did have a more comprehensive approach to historic preservation and the group agreed that Waterford should take the necessary steps to strengthen our current ordinances.

Mr. Lohff suggested that the Historic District Commission develop a list of their desired goals and objectives for the district so that the subcommittee can incorporate it with the Master Plan for this area

Discussion continued on a variety of other topics. Mr. Fisher then summarized by requesting that the group start to develop the final list of goals, objectives and recommendations for the final report. It was agreed that each member would review the materials and meeting minutes to finalize these recommendations at the next meeting.
Goals and objectives will be prioritized for both the Historic District (including Heritage Sites) and Neighborhood Nodes.

It was then resolved to set the next meeting date for Monday, August 20th @ 7:00 p.m. Again, the meeting will be held at the Historic Church on Andersonville Road.

Meeting Adjourned: 8:20 p.m.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE HISTORIC DISTRICT AND NEIGHBORHOOD NODES SUBCOMMITTEE MEETING MINUTES

Date: **20 August 2001**
Time: **7:00 p.m.**
Place: **Andersonville Historic Church Meeting Room**

PRESENT:

DEAN FISHER, CHAIRMAN
LARRY LOCKWOOD
MICHAEL FRANZ
DR. JOHN RICHARDSON
EVANGELINE CHASE
ALLAN MOTZNY
RICHARD LOHFF
CARLA SPRADLIN
LESLIE KETTREN, HNTB
KATHLEEN FITZPATRICK, HNTB

The seventh and final meeting for this subcommittee was once again held at the Historic Church on Andersonville Rd. The meeting started at 7:00pm

Ms. Kettren explained that she would facilitate tonight's subcommittee brainstorming session. The goal of the exercise is to come up with a list of historic district and neighborhood node goals and objectives that everyone in attendance is comfortable in sending to the Committee of the Whole. Ms. Kettren conducted the exercise, with the following goals and objectives recommended by the subcommittee to be included in the Township's new master plan as the result of its research and findings:

HISTORICAL DISTRICT PRESERVATION

1. Investigate traffic calming.
2. Old fashioned/decorative lighting in historical districts.
3. Signing for historical districts (wayfinding signs).
4. Signing on individual historical sites/homes.
5. Adaptive reuse of historical buildings.
6. Re-route large trucks (i.e. trucks going through the Andersonville Road Historical District).
7. Ordinance exploration to regulate viability of historical districts.
8. Explore administrative structure of the historical commission.
9. Add single properties to the historical district.
10. Tax abatements for businesses in historical buildings.
11. Obtain grants for restoration of historical buildings.

12. Pay attention to proposed vacant land usage.
13. Include properties around historical districts (re-evaluate boundaries established in 1977).
14. Improve/Infill walkways in historical districts – safety is an issue.
15. Brick paver sidewalks (Note: For barrier-free access we should look at an alternative like colored stamped concrete with a brick paver border).
16. Explore millage for historical districts – conduct a follow-up survey.
17. Investigate allocation of CDBG funds.
18. Re-evaluate zoning (i.e. Commercial) in Neighborhoods and Future Land Use
19. Better Communication with homeowners to inform them of expectations for homes within historical districts
20. Less signage on commercial buildings
21. Improved identification for school crossings in the historical district (Waterford Village Elementary School is located off Andersonville Rd. and Steffans Ct.)

NEIGHBORHOOD NODES

1. Promoting and revitalizing specific test or target areas in the Township that have the potential to become viable neighborhood nodes.
2. Increase accessibility between Neighborhood Nodes by pedestrian pathways, sidewalks and bike paths.
3. Promote the CAI building as a Community Center and provide the necessary streetscape, sidewalks/bike path links for improved pedestrian access from adjacent residential neighborhoods.
4. Promote the area of Airport Rd. and Hatchery Rd. as a Neighborhood Node (Some decorative Lighting is already present in this area. By continuing this theme, providing a small pocket park, instituting traffic calming measures, adding to the streetscape and providing the necessary sidewalk links, this area has great potential for a Neighborhood Node. Also, through our Walkability Study, we have targeted the area approximately 1.2 miles East on Hatchery Rd. to do specific improvements. This would tie in nicely to the Neighborhood Node concept for Airport and Hatchery Roads).
5. Research adaptive reuses of properties within Neighborhood Node area and market these areas by promoting Waterford. Further promote Waterford and our Quality of Life opportunities (i.e., cultural activities, schools, parks, riverwalk program, etc.)

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APPENDIX I: HOUSING AND DEMOGRAPHICS SUBCOMMITTEE MEETING MINUTES

MAY 3, 2001 MEETING MINUTES---------- PAGE I-2
MAY 15, 2001 MEETING MINUTES ----------PAGES I-3 THROUGH I-4
JUNE 5, 2001 MEETING MINUTES ----------PAGES I-5 THROUGH I-7
JUNE 19, 2001 MEETING MINUTES ----------PAGES I-8 THROUGH I-9
JULY 17, 2001 MEETING MINUTES ----------PAGES I-10 THROUGH I-11
JULY 31, 2001 MEETING MINUTES ----------PAGES I-12 THROUGH I-13
AUGUST 21, 2001 MEETING MINUTES ----------PAGES I-14 THROUGH I-15

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
DEMOGRAPHICS AND HOUSING SUBCOMMITTEE
MEETING MINUTES

Date: 3 May 2001
Time: 7:00 p.m.
Place: Waterford Township Hall Conference Room 3-1

Present: **Larry Lockwood**
Ingrid Bowman
Andrea Deering
Kendra Klein
Scott Krakauer
Joanna Ljovshin

This was the first meeting for the subcommittee, which was held at Town Hall in the 3rd floor conference room of Community Planning and Development. The meeting started at approximately 7:00p.m.

Mr. Lockwood gave a brief explanation of the subject and distributed an agenda, a draft mission statement, base census data from the recent 2000-01 census for Waterford Township, current master plan text addressing Demographics and Housing and a list of potential topics for future meetings. There was a short introduction as all committee members spoke about their interest in the topic and about Waterford Township in general.
Discussion continued regarding concerns about the Township as a whole and how housing patterns have developed in our community over the last 50 years.
Mrs. Bowman suggested that the Township is severely lacking in the area of transportation for seniors. Mrs. Deering and Mr. Krakauer voiced concerns over a need for larger lot sizes in the community. There was further discussion with regard to affordable housing and whether or not The Township has too much of this type of housing. Ms. Ljovshin indicated that she is in favor of affordable housing. Mr. Lockwood stated that this was a topic that should be discussed in more detail as the committee moves forward.
Mr. Lockwood stated that more information would be provided at the next meeting showing the committee current regulations and requirements for developing residential land within the Township.
Discussion continued with regard to the best day and time to continue to meet. It was resolved that the first and or third Tuesdays of the month after 7:30p.m. would be convenient for those in attendance. It was further resolved that the next meeting will be, Tuesday, May 15, 2001 at 7:30p.m. in conference room 3-1 of Township Hall (same as last time).

Meeting Adjourned: 8:00 p.m.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
DEMOGRAPHICS AND HOUSING SUBCOMMITTEE
MEETING MINUTES

Date: 15 May 2001
Time: 7:00 p.m.
Place: Waterford Township Hall Conference Room 3-1

Present: **Denise Alexander-Pyle, Chair**
Larry Lockwood
Ingrid Bowman
Andrea Deering
Kendra Klein
Scott Krakauer
Joanna Ljovshin

This was the second meeting for the subcommittee and was held again at Town Hall in the 3rd floor conference room of Community Planning and Development. The meeting was called to order by Chairperson Denise Alexander at 7:05 p.m.

Mr. Lockwood stated that Louise Braun had submitted a letter of resignation for this subcommittee. Ms. Alexander confirmed that she also had been notified of this by Ms. Braun. Apparently Ms. Braun has sold her home in the Township and will be moving to another community.

The first item on the agenda for discussion was the "Draft" Mission Statement. Ms. Alexander and Ms. Ljovishin made some suggestions to be incorporated into the text. Mr. Lockwood stated that he would make the necessary changes and bring it back to the subcommittee for final review and adoption at the next meeting.

Discussion continued with respect to housing trends and characteristics in Waterford Township. Ms. Alexander questioned what we want our community to be? Ms. Alexander asked Mr. Lockwood to provide the subcommittee with a map of Waterford Township that would show all existing residential areas and current average housing values for each. Staff explained that this will be investigated and the results presented as soon as available.

Ms. Ljovshin stated that there should be more emphasis placed on planning for the redevelopment of the Township. The discussion shifted to rental housing and Mr. Krakauer stated that the Township should create policy and procedure to allow the inspection of rental properties upon vacancy or tennant change to insure that these properties are kept up to current code requirements. Ms. Alexander added that CDBG Block Grant funds could help in this area. Ms. Alexander requested that Staff obtain a copy of the City of Dearborns' ordinance requiring inspection before or after a change of occupancy.

Discussion continued and Ms. Klein stated that Waterford Township is seriously lacking in higher quality homes.

Staff distributed the current "schedule of regulations" pertaining to residential development as found in the Waterford Township Zoning Ordinance. Discussion continued over minimum square footage for residential housing and minimum lot area requirements. Ms. Alexander suggested that in specific areas of concern, the Township must take the initiative to redevelop a single house or storefront to set the example of the communities interest in improving and upgrading the community.

The conversation then shifted to the need for improved neighborhood watch programs. Ms. Alexander questioned how extensive our current programs are and that this concept should be broadened. As the discussion concluded there were strong feelings among the group that substandard housing within the community should be identified and eliminated.

The subcommittee then resolved to set the next meeting date for Tues. June 5th, 2001 at 7:30 p.m. in conference room 3-1 of Township Hall. Staff stated that they would request the same conference room and make the necessary arrangements.

Meeting adjourned: 8:10 p.m.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
DEMOGRAPHICS AND HOUSING SUBCOMMITTEE
MEETING MINUTES

Date: 5 June 2001
Time: 7:00 p.m.
Place: Waterford Township Hall Conference Room 3-1

Present: **Denise Alexander-Pyle, Chair**
Larry Lockwood
Ingrid Bowman
Kendra Klein
Scott Krakauer
Joanna Ljovshin

The 3rd meeting for the D&H subcommittee was again held in the third floor conference room of Town Hall. Ms. Alexander called the meeting to order at 7:10 p.m. After the roll call, Mr. Lockwood explained that Mr. Al Ruckey, a new member had been added to the group. He is expected to start attending meetings immediately.

Mr. Lockwood passed out the meeting minutes from 5-15-01 along with an agenda for tonight's meeting. Ms. Alexander pointed out that the minutes should reflect the correct starting time for tonight's meeting as 7:00 p.m. Subject to that change, it was moved by Ms. Klein and supported by Ms. Bowman to approve the 5-15-01 minutes as corrected.

Mr. Lockwood distributed the draft Mission Statement to the group. This had been tabled at the last meeting in order to incorporate suggested changes made by the group. It was then moved by Ms. Ljovshin and supported by Mr. Krakauer to adopt the Mission Statement as revised. (Copy attached for the record).

Ms. Alexander questioned Mr. Lockwood as to whether or not Staff had received the City of Dearborn's ordinance pertaining to Rental Housing inspections. Mr. Lockwood responded that Staff had not yet received this information but will check on the status and hope to be able to provide this ordinance for review by the subcommittee at their next meeting.

The next item on the agenda involved formulating questions on the D&H topic for HNTB, the Townships Master Plan consultant. These questions would then be passed on to HNTB, to be used in conjunction with a community survey that would be sent out to approximately 300 households. Ms. Alexander suggested that the group as individuals take some time to develop two "draft" questions of their own followed by a review from the entire subcommittee. Discussion then continued with the whole group as each group member went over their particular questions. This resulted in 10 possible questions that could potentially be used for the survey. Mr. Lockwood stated that he would prepare a clean draft of the questions and forward them on to Steve Hayward at HNTB.

The discussion then shifted to upcoming meeting schedules. Mr. Lockwood explained that the goal for all of the subcommittee's, is to have their reports and recommendations completed by early September. These reports will then be brought before the Planning Commission and Citizen Advisory Committee of the Whole to be reviewed in a "Town Forum" meeting.

Ms. Alexander stated that due to her evening meeting schedule, she may be running a few minutes late for the next meeting or two. She suggested that the group appoint a deputy chairperson in case of this event. The group agreed and Ms. Alexander then nominated Ms. Ljovshin for this appointment. The group then unanimously approved this appointment.

Ms. Ljovshin then questioned the status of the Walkablity Study. Mr. Lockwood explained that the study, prepared by Beckett and Raeder, Planning Consultants, was presented and received by the Waterford Township Economic Developmnent Corporation on May 17, 2001 and has been forwarded on to the Township Board for review. Mr. Krakauer also was interested in this study and Mr. Lockwood stated that when the study is accepted by the Township Board, staff will provide a copy for the subcommittee to review.

The discussion then shifted back to housing. Ms. Alexander requested that staff ask HNTB to provide information on what other comparable communities around the country are doing to address similar situations and problems that are happening with housing here in Waterford. Mr. Lockwood stated that he would contact Steve Hayward at HNTB and invite him to the groups next meeting to discuss this topic. It was determined by the group that the best time and date to meet next would be in two weeks. Therefore, it was resolved to set the next meeting date for Tuesday, June 19, 2001 at 7:30 p.m. in the 3rd floor conference room of Township Hall.
This concluded the group's general discussion.

Meeting Adjourned: 8:20 p.m.

DEMOGRAPHICS AND HOUSING MASTER PLAN SUBCOMMITTEE MISSION STATEMENT

The Demographics and Housing Subcommittee will work to study and evaluate the 2001 Census Data for Waterford Township and review existing zoning and housing patterns within the community. Upon completion of this review, the subcommittee will make findings and recommendations and prepare a written report to be presented to the Master Plan Citizens Advisory Committee of the Whole.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
DEMOGRAPHICS AND HOUSING SUBCOMMITTEE
MEETING MINUTES

Date: 19 June 2001
Time: 7:00 p.m.
Place: Waterford Township Hall Conference Room 3-1

Present: **Larry Lockwood**
Andrea Deering
Kendra Klein
Scott Krakauer
Joanna Ljovshin
Steve Hayward, HNTB

Guests: **Jan Eathorne, Recreation subcommittee member**

The 4th meeting of the D&H subcommittee was held once again in the third floor conference room of Town Hall. After brief introductions were made, Mr. Lockwood passed out the evenings' agenda to the group. Mr. Hayward from the Townships consulting firm, HNTB began the discussion by asking the group to focus on past and present trends with regard to the communities housing stock. It was pointed out that certain homes in the community could be considered Heritage sites and should therefore be identified and preserved if possible. Many of these historical home sites or cottages may be found around the lakes of the Township. Mr. Hayward mentioned that the City of Monroe has a good example of an ordinance protecting these types of sites. It was suggested that this should be an objective of the Township to determine how many of the Heritage sites are left in the community and what can be done to insure that they can be preserved.

Discussion continued with regard to what the recent building permit trends have been over the past five (5) years for Waterford Township. Mr. Lockwood stated that the Township had reached a peak several years ago and that a downward trend, with regard to the number of permits issued, had started. The group questioned how Waterford compares with surrounding communities, such as White Lake Township and Independence Township. Mr. Lockwood stated that the Townships' GIS Division was in the process of developing a base map for all single family residentially zoned properties to determine parcel values by the current SEV value. This information will be available by the groups next regularly scheduled meeting. The Township currently has approximately 30,404 single family households. Ms. Eithorn stated that taxes are a problem for the elderly who have lived all their lives on lakefront property as property values have dramatically increased in recent times.

Mr. Hayward stated that the final report from this committee should focus on past housing trends and recommendations that are then boiled down to goals and objectives for the future. Mr. Hayward stated that HNTB would develop a series of questions to be answered by a local real estate expert. Ms. Deering volunteered to forward these questions on to a realtor that is familiar with the Township. Ms. Klein suggested that each committee member speak with friends or acquaintances who have moved away from the Township and ask them the reason why.

Mr. Hayward stated that crime doesn't go with or where there is a sense of community. Random discussion continued on a variety of topics. It was resolved to set the next meeting date for Tuesday, July 17, 2001 at 7:30 p.m. to be held again in the 3rd floor conference room at Township Hall.

Meeting adjourned: 9:30 p.m.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
DEMOGRAPHICS AND HOUSING SUBCOMMITTEE
MEETING MINUTES

Date: 17 July 2001
Time: 7:30 p.m.
Place: Waterford Township Hall Conference Room 3-1

Present: **Larry Lockwood**
Ingrid Bowman
Andrea Deering
Kendra Klein
Scott Krakauer
Joanna Ljovshin
Leslie Kettren, HNTB

The 5th meeting of the D&H subcommittee was again held at Town Hall in the 3rd floor conference room. The meeting got underway promptly at 7:30 p.m.

Mr. Lockwood explained that Chairperson Denise Alexander had not been re-appointed to the Planning Commission as her term had expired in June. He further stated that new Planning Commissioner, Dennis Griffin has been asked to participate on this subcommittee.

Mr. Lockwood displayed a revised map created by the Townships GIS department. This map represented a clearer picture of current SEV values for single family residential homes in the community. It was evident by reviewing the map that the higher home values were largely found to be located around the many lakes in Waterford Township. This of course, was not a surprise to any of the committee members. However, it was interesting to see how home values dropped off substantially by not being on the water.

Leslie Kettren gave a brief overview of affordable housing. Mr. Krakauer stated that the Township has many areas that offer entry level or affordable housing. Ms. Klein supported this statement, as did many of the group members. Ms. Ljovshin stated that the word “affordable” should not be used when describing this type of housing. The group questioned how the community would go about raising our housing stock. Ms. Kettren stated that “Quality of Life” issues were key to this question. She went on to state that municipal services, better schools, libraries, and cultural activities create an environment that will increase property values. Accessibility in and around the community is also a key ingredient to this end.

Ms. Kettren went on to state that through a concerted effort promoted through economic development strategies, change can happen. The group agreed that the Township should take a proactive approach to promote Waterford Township.

The group continued discussion on business and income trends of the community.

Ms. Deering stated that she had been working recently with a realtor, trying to identify available housing within Waterford. She went on to state that information was available that would show home sales over the past year or so. Ms. Deering volunteered to study this information and report back to the subcommittee.

This concluded the evenings' discussion. It was resolved to set the next meeting date for Tuesday, July 31, 2001. The meeting will be held at 7:30 p.m. in the 3rd floor conference room of Township Hall.

Meeting Adjourned: 9:15 p.m.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
DEMOGRAPHICS AND HOUSING SUBCOMMITTEE
MEETING MINUTES

Date: 31 July 2001
Time: 7:30 p.m.
Place: Waterford Township Hall Conference Room 3-1

Present: **Dennis Griffin, Chair**
Larry Lockwood
Ingrid Bowman
Andrea Deering
Kendra Klein
Scott Krakauer
Joanna Ljovshin

The 6th meeting of the subcommittee was again held in the 3rd floor conference room at Township Hall. The meeting was called to order at 7:30 p.m.

Mr. Lockwood introduced Mr. Griffin to the group as the new chair of the subcommittee. Mr. Griffin was recently appointed to the Planning Commission. Mr. Griffin had previously served as Planning Commission Chairman for the City of Auburn Hills and is currently very active with various organizations in Waterford Township.

Mr. Lockwood explained that the meeting minutes for the July 17, 2001 D&H subcommittee meeting had not been finalized and that they would be available at the next regularly scheduled meeting for review.

The next item on the agenda was a report by Andrea Deering. Ms. Deering gave a presentation on her findings on housing comparables in Waterford. Ms. Deering's study focused on home sales of three (3) bedroom ranches with one bath that have sold within the past year. She stated that by using the parcel SEV map that had been created by the Townships GIS Department, she had divided the Township into nine (9) sections and had broken down the housing sales accordingly. Comparison data was also provided for each home. Over the past year, a total of 227 homes in this category were sold in Waterford. There have been 44 sales near the center of the Township (M59 & Crescent Lake Rd. area), 49 sales in and around the south center of the Township (Elizabeth Lake and Crescent Lake areas) and 35 sales in the southeast portion of the community (south of Elizabeth Lake Rd. and east of Cass Lake Rd.). This represented the largest numbers of sales respectively throughout the nine (9) sections. The number of sales in the remaining six (6) sections were considerably less.

The average selling price for this entire group of homes in this category was $135,161.00.

The group then discussed the findings in more detail.

Discussion then shifted as to the reasons why people are moving out of the community. Is Waterford becoming a "Transient Community"? Ms. Deering explained that in her family's search for a new home in Waterford Township, it had been very difficult to find a quality home with the features that are desirable for a growing family. Mr. Griffin stated that higher income families most often choose to send their children to private schools. The group agreed that Waterford Schools still do not have a great reputation. Mr. Krakauer suggested that Waterford would benefit from neighborhood community centers to provide more areas for children to socialize. It was further discussed that less than ten years ago the voters of Waterford had not supported the development of a community recreation center. The group strongly agreed that this type of facility, that would also allow for cultural activities is a vital component to any community.

Mr. Krakauer stated that the "Neighborhood Node" concept is something the Township should explore as it would allow for existing commercial structures to be reevaluated and possibly utilized in combination with residential units above. This approach would help to stimulate some of the local and general business areas of the community and provide alternative housing choices. Ms. Ljovshin agreed stating that this concept would provide opportunity for business people to live and work out of the same building and help to improve downtrodden areas in our business districts.

As discussion concluded, Mr. Lockwood suggested that the group start to develop a list of goals and recommendations for the subcommittees' final report. This will be discussed and finalized at the next meeting.

The group resolved to set the next meeting date for Tuesday, August 21, 2001 @ 7:30 p.m. The meeting will be held once again in the 3rd floor conference room of Township Hall.

Meeting Adjourned: 9:10 p.m.

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
DEMOGRAPHICS AND HOUSING SUBCOMMITTEE
MEETING MINUTES

Date: 21 August 2001
Time: 7:30 p.m.
Place: Waterford Township Hall Conference Room 3-1

Present: **Dennis Griffin, Chair**
Larry Lockwood
Ingrid Bowman,
Andrea Deering
Kendra Klein
Scott Krakauer
Joanna Ljovshin
Steve Hayward, HNTB

The seventh and final meeting for this subcommittee was again held in the 3rd floor conference room at Township Hall. The meeting was called to order at 7:30 p.m.

Mr. Hayward explained that he would facilitate tonight's subcommittee brainstorming session. The goal of the exercise is to come up with a list of demographic and housing goals and objectives that everyone in attendance is comfortable in sending to the Committee of the Whole. Mr. Hayward conducted the exercise, with the following goals and objectives recommended by the subcommittee to be included in the Township's new master plan as the result of its research and findings:

- Develop a Community Identity
- Promote Waterford as a destination for shoppers, diners and entertainment seekers.
- Develop Housing Stock with sufficient range to accommodate upper income housing i.e. non-lakefront homes in the $300K + range.
- Increase occupied commercial strip properties i.e. office space.
- Eliminate substandard rental housing stock.
- Require inspections to insure that rental properties are adequately and safely maintained per current code requirements.
- Continue to eliminate blighted areas through code enforcement.
- Actively promote Waterford through marketing strategies to encourage new business and technology based companies to locate here.
- Create/ develop land use regulations to encourage the development of mid priced range housing.
- Develop ordinances that promote the improvement of properties prior to the sale or re-leasing.

- Require more open space to be preserved for new housing developments.
- Establish a Redevelopment District as part of the Zoning Ordinance.
- Promote the Neighborhood Node Concept.
- Continue to develop and implement the Gateway concept for our entryways into the community.
- Further develop the Civic Center to include a Community Center with a wide range of recreational programs for all ages.
- Designate Summit Place Mall as an area for potential redevelopment to enhance the Telegraph Rd. corridor. Multiple family housing may be introduced into this area in an attempt to develop the "Node" concept.
- Explore the "Live / Work" concept for specific Neighborhood Node areas (Living areas or loft apartments above retail or office uses).

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APPENDIX J: ZONING ORDINANCE AND LANDSCAPE AESTHETICS SUBCOMMITTEE MEETING MINUTES

NOTE: The primary work of this Subcommittee will be undertaken after the Master Plan is adopted. Once the Subcommittee's has prepared a draft report on recommendations for a new Zoning Ordinance, the minutes of those meetings will be inserted into this Appendix.

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APPENDIX K: PUBLIC PARTICIPATION PROCESS DOCUMENTATION AND REPORTS

DOCUMENTS INCLUDED IN THIS APPENDIX

- June 17, 2000 Visioning Session
- 2001 Key Person Interviews
- 2001 Focus Groups
- July 2001 Telephone Survey
- September 25, 2001 Nominal Group Exercise
- October 17, 2001 First Town Forum
- May 1, 2002 Second Town Forum
- Evaluation Form (October 2001 Town Forum)
- Facilitator's Guide: Small Group Activity
- Summary Report
- Questioning Guidelines
- Focus Group Results (Groups 1-5)
- Town Forum Worksheet
- Ice Breaker Exercise
- Small Group Activity
- Evaluation Form (May 2002 Town Forum)
- October 2001 Town Forum Report
- October 2001 Guiding Principles Exercise Results
- October 2001 Top 5 Guiding Principles
- May 2002 Guiding Principles Exercise Results
- Epic x MRA Waterford Township survey on Master Plan Issues (July 2001)

Report to Charter Township of Waterford on the Master Plan Visioning Session

From Project Innovations

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Steps in the Process

Interview Process

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Steps in the Process

1. JT (Jo Anna Trierweiler) of Project Innovations met Robert Vallina, Community Planning and Development Director; Larry Lockwood, Planning Division Head; Jay Shah, Chairman of the Township Planning Commission. During this discussion we laid out a strategy for engaging stakeholders from within the community to participate in the Visioning Session.

The Community Planning and Development staff developed a categorical list of stakeholders that they thought should be engaged in the Visioning Session (see Appendix A). Representation from this broad cross section of community leaders would provide a broad array of perspectives and potentially build greater understanding and support for the recommendations coming out of the Visioning Session.

2. The Planning Commission reviewed the recommended stakeholders categories. In addition, JT of Project Innovations presented the Commission with a proposed timeline for completing the process. The Commission agreed that the proposed list covered an appropriate array of stakeholders. The Commission recommended that the Community Planning and Development staff establish a list of participants from across the stakeholders and move forward with the Visioning Process.

3. The Community Planning and Development staff developed a list of invitees and contacted them with the basic information regarding participation in the Visioning Process (see Appendix B).

   JT developed a set of questions for the interview process (see Appendix C). JT and Katrina McCree of Project Innovations did the actual interviews. The individual information obtained during the interviews as held as confidential. However, a composite of the information was utilized to shape and enrich the Visioning Session.

4. The Community Planning and Development staff indicated a desire to open the Visioning Process to as many people as possible. In response to this initiative, JT developed a questionnaire, which would allow for input from individuals who were unable to attend the session (see Appendix D). Information from the questionnaires was also used to shape the Visioning Session.

5. The Community Planning and Development staff developed Master Plan categories for the Visioning Session to help frame the discussions regarding a preferred future for Waterford Township.

6. In preparation for the Visioning Session, participants were given disposable cameras and asked to photograph areas in the community that they are proud of and areas that

concerned them. These photos were developed prior to the session and displayed on foam core board for use in the Visioning discussions.

7. The Visioning Session took place on Saturday, June 17, 2000 at the Hess-Hathaway Park Community Room. 21 of 36 invitees attended (see Appendix E). In my experience this turnout, on a sunny Saturday in June, demonstrates the remarkable dedication and interest on the part of these stakeholders.

8. On Tuesday, July 11, 2000, JT provided the Planning Commission an overview of the agenda and a brief summary of the participant's evaluation of the program (see Appendix F).

9. Completion of this report brings Project Innovations, Inc's initial Visioning contract with the Township to a close.

Interview Process

The Community Planning and Development Staff invited 31 stakeholders to participated in the Visioning Process. Project Innovations contracted each invitee by phone and arranged interviews with as many invitees as possible. During the interview we explained the purpose of the interviewing process. Project Innovations interviews prior to working with groups for the following three reasons:

- To gain insight into the interests, knowledge and desired outcomes of the participants;
- To have a conversation with the individual participants prior to the session so we have some personal understanding of each membe3r before we attempt to work with them as a group and;
- To utilize the information obtained in the interviews to inform and enrich the session.

Each interviewee was asked a series of 10 questions:

1. Their story – How did you come to reside, work, or have an interest in the Township?
2. The Township is preparing the development of a Master Plan for the next 20 years, What would you like to see the community focus on in the Master Plan?
3. What obstacles or threats do you anticipate might get in the way of this vision?
4. What is one of the greatest assets of the community?
5. What is one weakness you see in the community?
6. What is the feasibility of funding the changes you would like to see in the next 20 years?
7. How have funding mechanisms faired in the past (bonds, millages, etc.)?
8. What aspect of the Master Plan would you like the Visioning Workshop to focus on?
9. What are your desired outcomes for this event?

10. Is there anything you thing we should know or be aware of in order to make this even the most effective for the community?

The information obtained by both interviewers was compiled and utilized to inform the development of the agenda for the event.

Visioning Session

The Visioning Session took place on Saturday, June 17, 2000 at the Hess-Hathaway Park Community Room from 9:00 a.m. to 3:00 p/m/ with 24 participants (see Appendix G).

The Session opened with an explanation of the day and introductions across the group. Three global desired outcomes were identified:

- Learn what others see
- Create 5-6 top priorities
- Commit to working together

These outcomes were developed not only as guidelines for the day, but also to set in motion support for the effort after the session.

The session had five components:

- A Snapshot in Time (using photos),
- Community Profile (presented by the Planning staff),
- Visioning: Imagine in Twenty Years…(envisioning a Preferred Future),
- Visioning (What they saw, What they heard),
- What Will Support Look Like (after this session).

The underlying theory utilized in this session was the Group Development Model. This model cycles groups through a focus on Purpose, Membership, Controls, Goals and Feedback.

The discussions were typically held in small groups to encourage participation on the part of all attendees. Nick Lomako, Katrina McCree, and JT served as floating facilitators for each small group discussion process. The small group discussions, visions, and recommendations were then reported out to the large group for further discussion.

JT of Project Innovations, Inc. served as the lead facilitator and primary contact with the Township on the development and implementation of the Visioning Session.

Katrina McCree of Project Innovations, Inc. led the Visioning Session encouraging them to look into the future and envision what they would like to see in the community.

During the afternoon session, Nick Lomako of Wade-Trim, provided an overview of what to focus on in the Master Plan Visioning session. He encouraged the group not to focus on cost at this time, but rather to envision what they believe would make this the best place to live and work. He cautioned that if they focussed on cost in the visioning phase, they might lose out on innovation. Nick pointed out the desire to create something significant in the community frequently stimulates creative ways to make it happen.

Nick also served as a resource to the small group discussions offering facilitation skills and a wealth of experience in Master Planning processes across the state.

The close of the session included a symbolic signing of a Group Development Circle as a Partnering Agreement. The visual captured the agreements forged by the group in relationship to each aspect of the Group Development Model (see Appendix H). In summary, the group determined the following:

Purpose:	To Structure Waterford's Future
Membership:	Expand to all stakeholders (business, residential, all elected officials, media, continued communication mechanism in town meetings, media and cable).
Controls:	Public input, Planning Commission recommendation, Zoning Board support, Township Board adoption.
Goals:	Publicize Vision, develop Master Plan, involve Community
Feedback:	(Community) wants and needs – all factions of the community involved, adequate funding, total commitment, media involvement to relay communication to the public.

Findings & Conclusions

As a result of the visioning discussions, during this session the groups recommended five focal areas for the Waterford Township Master Planning Process:

Top Five Visions Identified by the Visioning Groups:

1. **Beautiful Commercial Corridors**
   - Underground utilities
   - Boulevards
   - Monument-style signing
2. **Environment**

Green space and links
Parks, trails, river, lakes

3. Community Center

Downtown @ M-59 / Riverwalk / Airport area
Integrated Downtown with Convention Center

4. Drayton Plains – "Village" Center

Specialty Retail
Historical
Includes surrounding residential

5. Community Recreation Building

Fitness Center
Pools
Arts – visual and performing

The evaluations for this program looked at three aspects:

- What is one thing you like today?
- What is one thing you would change?
- What is one thing you would add?

The comments for "What they liked" ranged from round table discussion, interacting, candid opinion, mixing people, involvement, dedication, participation, views from a wide group, to the development of an overall vision.

The "What they would change" comments ranged from shorter program, more clarification of expectations from shorter program, more clarification of expectations from onset, more government officials involved, mix groups more, clearer directions, more diverse representation of the community to things like reduce noise and have it on a rainy day.

"What they would add" identified the need for more citizen input, more stakeholders, input from younger generation, participation of funding agencies, more business people to clearer goals and more breaks.

Overall the evaluation appeared positive and in support of this type of process as a way to gain stakeholder input early in the Master Planning Process.

Recommendations

1. Utilize the five areas identified in the Visioning Process as focal points to "go forward" with the Township Master Planning process. They should be published publicly as the work of the Visioning Session. These areas should be moved forward for further public input. The subsequent Master Plan should incorporate appropriate methodologies and opportunities for making these visions a potential reality within the community over the next twenty years. This is not to say that the Township

should commit to doing these, but rather make it feasible by creating an infrastructure that is flexible and could potentially support possibilities like these.

2. Develop a strong public awareness and involvement campaign. The participants in the Visioning Session identified additional groups that need and should be engaged in this process early on. The goal would be to help increase public interest and awareness. The charette-type process utilized in the Visioning Session can be an excellent way to get input from a large array of people quickly. Once you engage the public it is important to keep them posted throughout the process. It is essential to create an awareness that they are invited to participate and would be welcomed and that you are willing to keep them informed along the way.

   These are somewhat emotionally based terms, however people make attitudinal decisions based on emotions rather than on pure logic.

   Project Innovations would love to continue working with Waterford Township to create methodologies and experiences aimed at gaining public involvement and support.

3. The Planning Commission should send thank you notes to the participants in the Visioning Session that include information regarding the next steps in the process.

4. Master Planning documents tend to be technical and oftentimes difficult reading for the general public. The Township may want to consider developing its Master Plan around themes. The typical Master Planning categories then are used as underpinnings. For example, if a Community Center were a focal point in the Master Plan then the underpinnings would be related to land use, transportation, green space, housing, commercial, etc. This makes it easier for the community to relate to the goals of the Master Plan. Howard County, MD utilized a similar approach to gain greater public involvement in its most recent Master Plan.

APPENDIX A – Charter Township of Waterford Stakeholder List

- Township Board
- Planning Commission
- Zoning Board of Appeals
- Community Planning and Development
- Building and Engineering Department
- Department of Public Works
- Parks and Recreation Department
- Library Department
- Police Department
- Fire Department
- Economic Development Corporation
- Waterford Business Association
- Waterford Cultural Council
- Waterford Historical Society
- Waterford School District
- Oakland International Airport
- Road Commission for Oakland County
- Oakland County Drain Commission
- County of Oakland
- Michigan Department of Transportation
- Michigan Department of Natural Resources
- Detroit Edison
- Consumers Energy
- Ameritech
- Comcast

APPENDIX B: Information for Stakeholders Discussion

Responsibilities:

1. Interview

a.) Project Innovations staff will contact stakeholders who are participating in the Visioning Session for a pre-session interview to learn about their concerns and interests.
b.) Stakeholders who are unable to participate will be asked to complete a written questionnaire so their input will be a part of the Visioning Session. Township staff will mail the questionnaires. Questionnaires should be returned to the Township by Friday, June 9, 2000.

2. Photography (for attendees only)

a.) Pick up a disposable camera from the Planning Dept. following their interview.
b.) Be photographed by a Township employee when they come in to pick up the disposable camera.
c.) Photograph locations in the community that they are proud of and areas that concern them.
d.) Return the disposable camera to the Township Planning Department by Friday, June 9, 2000.

3. Visioning Session

a.) Participate in a day-long Visioning Session on Saturday, June 17, 2000.
b.) Be willing to share the goals and objectives developed by the group with others following the session.

APPENDIX C: Waterford Township Interview Questions (May 31, 2000)

1. Their story – How did you come to reside, work, or have an interest in the Township?
2. The Township is preparing the development of the master plan for the next 20 years, What would you like to see the community focus on in the Master Plan?
3. What obstacles or threats do you anticipate might get in the way of this vision?
4. What is one of the greatest assets of the community?
5. What is one weakness you see in the community?
6. What is the feasibility of funding the changes you would like to see in the next 20 years?
7. How have funding mechanisms faired in the past (bonds, millages, etc.)?
8. What aspect of the Master Plan would you like the Visioning Workshop to focus on?
9. What are your desired outcomes for this event?
10. Is there anything you think we should know or be aware of in order to make this event the most effective for the community?

APPENDIX D: Waterford Township Visioning Session Questionnaire

Thank you for your willingness to provide input that can be used as a part of the Visioning Session on Saturday, June 17, 2000.

1. The Township is preparing to develop the master plan for the next 20 years, What would you like to see the community focus on in the Master Plan?

2. What obstacles or threats do you anticipate might get in the way of this vision?

3. What is one of the greatest assets of the community?

4. What is one weakness you see in the community?

5. What is the feasibility of funding the changes you would like to see in the next 20 years?

6. In your estimation how have funding mechanisms faired in the past (bonds, millages, etc.)?

APPENDIX E: Visioning Workshop for Waterford Township (Saturday, June 17, 2000)

Twenty-four out of the thirty-one invitees attended the Visioning Session

Attending:

- Will Allen
- Terry Biederman
- Doug Bradley
- Dick Cartmill
- Garry Crake
- Betty Fortino
- Matthew Gaberty
- Dave Gonser
- Scott Hudson
- Mark Kellenberger
- Dale LaCroix
- Nancy Liepold
- Larry Lockwood
- Larry Mitchell
- Bette O'Shea
- Ellie Pinner
- Denise Alexander-Pyle
- Jay Shah
- Joy Smith
- Nancy Smith
- Dennis Storrs
- Bob Vallina
- Amy Williams
- Dave Zuehlke

APPENDIX F: Evaluations – Waterford Visioning
(Saturday, June 17, 2000)

1. What is one thing you liked today?	2. What is one thing you would like to change?	3. What is one thing you would add?
Round Table discussions Sharing Community Visions	More clarification on expectations from onset.	Once you start the process…Stay for entirely!
Many of the same concerns	Trustees present (lack of)	?
The positive attitudes	A little shorter program	More "citizen" input at this level.
Getting township leaders and stakeholders together	Nothing	Invite stakeholders.
I liked getting together with other community leaders and visioning Waterford's future.	Nothing	Nothing
Great Meeting	Nothing	Have more people involved.
Interacting with people involved in community that I didn't know before today	Locked door policy – commitment of players	Thank you!
Moving forward	Noise. Too much like a road race	
Lunch	Lunch	Lunch
Involvement and Dedication of those involved	I would like to have had more involvement of Gov. officials and Business people (they failed to show).	More of a consensus
Participation and views from a wide group of people.	Locked door policy. Everyone should have stayed.	Input from younger group (student), Waterford's future
Development of an overall vision. Interesting how it all came together.	Explain overall organization at beginning rather than end.	Provide a list of all invited to participate
Meeting many new people in township government and Business organization.	Maybe change the people in each group/table as we move to new activities and subjects.	Probably one more 10 min. break.

1. What is one thing you liked today?	2. What is one thing you would like to change?	3. What is one thing you would add?
The idea that visioning can be positive.	Add short, concise, real people re: source of funds.	Non-planners
Getting to know more people better; learned more about the planning process.	I think that the directions for each task should be clearer and made available to refer to. At times I didn't know what to do.	Begin session with clearer goals and objectives for the day. Clear identification of what comes next.
Accomplishment	Have it on a Rainy Day!	?
Candid opinion	Would like more diverse portion of community.	Funding agencies
Mixing of people and so you had to work with people you didn't know.	No weekend meetings!	More business people.
The friendship/ togetherness with community movers and shakers.	Not so much input in such a short time.	Not sure what I would add to what we accomplished.
Free interchange of ideas.	Not much good facilitation with out excessive control.	More inter-play between groups.

Waterford Township Master Plan Visioning
Saturday, June 17, 2000
9:00 AM - 3:00 PM

Desired Outcomes:	▪ Learn what others see ▪ Create 5-6 Top Priorities ▪ Commit to working together
Agenda:	
1.	Welcome . . . Agenda Review . . . Desired Outcomes
2.	Who Are We?
	Break
3.	A Snapshot in Time
4.	Community Profile
5.	Visioning a. What we heard b. Imagine in Twenty Years...
	Lunch
6.	Visioning a. What we saw b. What we heard c. What we will support
	Break
7.	What will support look like
8.	Closing

TO STRUCTURE WATERFORDS FUTURE
Purpose
Publicize Vision
Develop Master Plan
Involve Community
Expand to all stakeholders
business, residents, all elected (non partisan) officials, MEDIA
Continual communication mechanism
town meetings
media/cable
PUBLIC INPUT
P.C. RECOMMENDATION
Z.B.A. SUPPORT
TWP. BOARD ADOPTION
6-17-2000
all factions of the community involved
adequate funding
total commitment
media involvement – to relay communication to the public

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE
Evaluation Form

1. What were your expectations for this workshop?

2. How did the workshop help to fulfill your expectations?

3. How would you have changed the workshop so that it better met your needs?

4. Did presentations assist you in focusing on the issues and purposes of the workshop?

   (Less) (More)

5. On a scale of 1-10, please indicate where your general feelings lie concerning effectiveness of this workshop.

   Negative Poor Fair Positive Very Positive

   _____

   0 1 2 3 4 5 6 7 8 9 10

6. Please make any additional comments you may have concerning the workshop.

Charter Township of Waterford Master Plan Update

Facilitator's Guide: Small Group Activity
September 25, 2001

After Bob Vallina and Leslie Kettren's opening presentation, they will tell the facilitators to take five (5) minutes and lead their groups to their assigned locations.. After that, allow the facilitators time to go around the table and listen to the answers for the following three questions:

1. What is your name (and whom do you represent, i.e. organizations, agencies, or citizen groups)?
2. How many years have you lived (or worked) in the township?
3. What is the most important land use issue, in your opinion (scribe the answers to this on the flipchart)?

Participants reacting and contributing to the information developed by the Sub-Committee's is the most important part of the evening. Participants will be sent Worksheet #1 via the mail and told to fill it out. On it they are asked for their reactions to the goals objectives and policies included in their packets. Their completed Worksheets will be collected during the evening. Following the introductions at the table, please remind them to reference it. Worksheet #1 is the basis for the small group activity.

The work of this activity is to bring out their reactions to goals, objectives and policies. You will have a total of 90 minutes to obtain their input as follows:

- Facilitator introduces the activity. (5 minutes)
- Participants share likes for first Sub-Committee group.
- Participants share changes, additions, and deletions for the first 3 goals, objectives or policies.
- Participants advocate for specific reasons.
- Repeat steps 2-4 for other 7 Sub-Committee groups. (Each cycle should take approximately 10 minutes.)
- Participants vote using 3 color sticky dots.
- Facilitator wraps-up the task.

Facilitator Prep-Work:

- Before participants arrive, label flipchart sheets as follows.
- Leave the first sheet blank
- On the 2nd, write these steps of the process: share likes, share changes and additions, advocate, vote.
- Label the next 16 sheets with each of the Sub-Committee Areas (two sheets per sub-committee) because these will be processed one-by-one in the following order:
    1. Capital Improvements and Municipal Services
    2. Economic development
    3. Education and Public Services and

4. Environment
5. Recreation & Open Space
6. Transportation and Commercial Corridor Developments
7. Historic Districts and Neighborhood Nodes
8. Housing Demographics

1) Introduction – 1 minute. Facilitator introduces the activity.

Suggested script. *We have a lot to cover, so we'll be moving quickly because we want to be sure and hear what everyone thinks. We'll have 90 minutes total to cover all the objectives and policies.*

- *First I'm going to ask you to share the goals, objectives and policies you like the most.*
- *Then, taking them one at a time, I'll ask for you recommended changes, additions or deletions relating to each. This part is especially important because we want NEW ideas.*
- *Then, you'll have a little time to explain why you are recommending any changes.*
- Then you'll each get three colored sticky dots to vote for the changes you feel are most important. We will tally up the votes and report the top two vote getters to the total assembled group for everyone's consideration.
- *We'll follow this process for the 8 Su-Committee areas in 10 minute blocks of time.*

Don't worry if you don't remember everything I just said, I'll explain each step again as we go through the process. Any questions?

2) Discussion 1: LIKES – 2 minutes.

Ask participants to look at Worksheet #1 and share a goal or objective that they like, identifying it in 3-5 key words; hopefully they'll have this on Worksheet #1. Facilitator goes 'round robin,' i.e., asks one person at a time to share, and then goes around one more time. Recorder writes responses on flipchart entitled "LIKES."

Suggested script. *First, I'd like you each to share one goal or objective you like. Please refer to Worksheet #1. If someone says one that you thought of, suggest a different one. We only need things on the list once. After we've heard from everyone once, we will go around once again. We will record all your responses on the flipchart and they will be added to the record this evening. Does anyone have any questions before we begin? OK, who would like to begin (or we can begin with you)……(After the 2nd time around): Everybody has had the chance to share twice. Is there anything else you really feel passionate about that should be on the list?*

3) Discussion 2: Changes, Additions, Deletions – 2 minutes.
This is the most critical step in the exercise, maybe the most critical step of the evening. As facilitator you want participants to share their proposed changes (changes, additions, deletions) about the Goals, Objectives, and Policies. Again we will use the Round Robin process. After going through all the goals, ask in there are any other goals to add. Remind

participants that "It is OK to pass," if they do not have any particular comment. It is important to make "Ok to pass" part of the group's norms. Also, given our tie limitations, you will also have to remind group members to be brief. Recorder writes responses on flipchart entitle "Recommendations."

Suggested script. *Now I'd like you to share any changes, additions, or deletions to the goals and objectives that you woul d recommend. We will go through the Goals one by one, gathering your ideas on the flipchart. Again we'll go around one by one, and only share recommendations that are different from those already suggested. If something has been state that is similar to your idea, but not quite the same and it is important to you, don't hesitate to suggest an "amendment" or a "revision." One last reminder before we get started on the Natural Resources Goal, we are focusing on the Goals, Objectives, and Policies not the "how to" details.* (After going through the goals, ask: *Are there any other goals to add?*)

4) Advocacy Time – 2 minutes.
Facilitator gives the group "advocacy time" to share opinions about the recommended additions and changes listed on the flip chart. Tell participants to be clear and brief as they can. Because the time is very short, go round robin and ask them to identify the item they want to advocate in three to five key words, and then give a sentence or two explaining why they thing it's important.

Suggested script: *On the flipchart we have listed the various recommended changes or additions you have suggested. As a group it is our job to select the ones that we think are most important to put forward to the larger group for consideration. Before doing this, we are allowing a little time for lobbying or advocating for your favorite idea, or if the case may be, arguing against an idea. We have only five minutes, so we'll go round robin. First identify the item you want to advocate for in three to five words, then explain why it's important in a sentence or two. Who wants to begin?*

5) Prioritizing – 2 minutes.
Facilitator asks participants to reflect on recommended changes (of the first three Goals and Objectives) while handing out three colored sticky dots (one red, and two blue) to each person. Facilitator reads each suggested change or addition, and then asks participants to use the sticky does to "vote for" those they feel are the most important. Explain that red is for the recommended change they feel is most important. The blue are for two other important changes. They should put each dot on separate items. If you have more than four items, give each participant another dot to select among them so that you are reporting out no more than three items. When the voting is finished:

- Tally the votes and be prepared to report the top two to the whole group. Count a red dot as three votes, a blue as one vote.
- Write the top two on separate index cards.

Suggested script. *Now think about these recommendations we have listed on these flipchart pages. I will read all of them. Use the red dot to vote for the one you think is most important.*

Use the blue dots to vote for two others you think are important. I will report the two that get the most dots to the whole group.

6) Wrap-Up

- Have participants put the date, location, and group number on their worksheets (worksheet #1) and collect them.
- Put the location and group number on each flip chart.

Charter Township of Waterford Township Master Plan Update

The purpose of a community approach to planning is to recognize that Waterford Township shares a vested interest in various natural resources, services, and public infrastructure. Therefore, preserving and enhancing the quality of life in this community requires a concentrated effort to manage these shared assets. Achieving agreed upon regional goals and objectives for these assets is the first step in the cooperative and pro-active growth within Waterford Township.

The comments gathered during the sub-committee meetings and from public opinion surveys indicate that residents share the same vision for the future of Waterford Township. These comments are considered to be crucial to developing measures for effectively managing future growth and development within the township.

Prevalent concerns were:

1. Environment
2. Recreation & open space
3. Transportation and commercial corridor developments
4. Capital improvements and municipal services
5. Education and public services
6. Economic development

The following community goals and objectives will be strongly influenced by the comments gathered from residents at the public meetings and from interest groups throughout the partnering communities. Once reviewed by Waterford Township, these goals and objectives will be shaped into a form that will be refined during the ___ Town Forums. They will then be tested using quantitative methods during the alternative development stage, and will subsequently guide future land use decisions throughout the region and in the local communities.

ENVIRONMENT

Goals

Goals are the general statements that define the direction and character of future development.

GOAL: To the maximum extend possible, maintain the abundance and quality of existing natural resources with Waterford Township, so that these

ecosystems can continue to perform their vital functions, as well as aesthetics and recreation.

GOAL: Enhance and restore existing natural resources that have suffered degradation.

GOAL: Retain the unique character and the desirability of Waterford Township as a "livable community"; a place to live, work, and play, maintaining and promoting the abundance of recreation opportunities.

GOAL: Recognize the natural capacity and limitation of land to support development. Allow for a range of housing choices within the limitations in the community. Maintain a primarily low density residential community in areas where there are restrictions due to natural features, limiting soil conditions, lack of sewer and water and other urban services, and the capacity of the existing road network.

How can the Township fulfill the stated goals?

POLICIES

Policies set the framework for actin and form the basis upon which more detailed development decisions are made.

1. **Land Use Intensity**
   Guidelines governing the intensity of land use should be dependent on the natural capability of the land and existing infrastructure to support various degrees of development.

   - Low intensity land uses should be located where natural resource conditions are least capable of supporting development, existing roads are inadequate, and existing low density land uses patterns currently exist. The use of septic and wells is appropriate for low intensity land uses. Compatible land uses would generally consist of low density residential, open and agricultural land, and recreation/conservation land.

   - Medium intensity uses should be located where natural resource conditions are moderately capable of supporting development, adequate roads are accessible, and existing medium density land use patterns exist. The availability of water and sewer service should determine level of intensity. Suitable land uses would consist of medium density residential with complementary local commercial, office, public, and quasi-public uses.

   - High intensity uses require access to major thoroughfares and state highways, sanitary sewer and water service, existing medium to high density land use patterns, and natural resource conditions most capable of supporting development. High

density residential, office, industrial, and general commercial land uses would be consistent for this category.

2. Natural Resource Capability

All development shall respect the following natural characteristics and constraints:

Wetlands

- The protection of wetlands is essential in order to preserve water quality, stabilize stormwater runoff, recharge groundwater, and provide fish and wildlife habitat. The highest priority is for the preservation of wetlands in their natural state.

- While the actual boundaries and the significance of specific wetland areas must be determined at the time of development review, three aspects of wetland protection should be recognized in reviewing proposed development within and in the vicinity of wetland areas.
    - ✓ Wetland area boundary.
    - ✓ The adjacent buffer and fringe area.
    - ✓ The remainder of the watersheds which drains into and out of the wetland area beyond the buffer area.

Woodlands

- The conservation of woodlands is imperative to protect water and soil quality, increase air quality, buffer noise pollution, moderate local climate and storm hazards, preserve wildlife habitats, and preserve aesthetic values and community beauty.

- Development which is permitted in and around wooded areas should be planned, constructed, and maintained so that existing, healthy trees and native vegetation are preserved. The objective should be to preserve native trees rather than rely on removal and subsequent replanting. The diversity of woodland areas should be protected to ensure long-term stability, and the variety of species preserved.

Slopes

- The existing landform should be made a part of the land use planning and design. The primary objective should be preservation of the natural contours rather than alteration through mass grading

- Careful planning of slopes is necessary in order to reduce erosion, maintain stability, and control amounts and velocities of runoff.

Groundwater Protection and Recharge

- Groundwater recharge areas restore water levels in underground storage areas and supply water to lakes, rivers, and streams. Due to the reliance on wells, retention and protection of groundwater resources is important to Waterford Township and our neighbors. Since recharge areas extend beyond Waterford's boundaries, county and regional cooperation will be needed to effectively manage and protect groundwater.

- Recharge areas are best kept as open space, or low density uses, to retain as much of the permeable surface as possible. Land grading should be controlled to retain the water holding characteristics of the land. Native vegetation essential to the water holding characteristics should be preserved, or where necessary, enhanced as part of a development program.

- Recharge areas should be protected form pollution by controlling all uses that discharge wastes into the hydrogeological cycle. Especially critical to monitor are uses which handle hazardous materials that might leak or spill.

Stormwater Management and Drainage

- Protection of slopes, woodlands, and wetlands within the watershed and proper management of land use and development are essential to maintaining the quantity of storm drainage.

- Natural vegetation and topographical features along stream corridors and waterways should be preserved. Uses should be restricted to those which offer no danger of topographical disturbance to the corridor, degradation of water quality, increased runoff, sedimentation, or stream channel alteration.

- Natural vegetation and topographical features along stream corridors and waterways should be restored and/or enhanced in appropriate areas.

- Surface water runoff should not exceed the rate that occurs under existing, undeveloped conditions. Control of runoff prevents overloading of streams and long-term erosion from uncontrolled, high velocity discharges.

- Agricultural practices should respect stream corridors and waterways and the natural drainage and runoff pattern associated with them, in concurrence with the development constraints listed above.

Natural areas

- Natural areas should be inventoried assessed for quality, location, and health, and should include species surveys by the Michigan Natural Features Inventory.

- The preservation of natural areas is essential to maintaining Waterford Township's unique heritage and character and for providing high-quality and diverse wildlife habitat.

- Restoration and enhancement of natural areas should be encouraged and carried out in order to increase environmental quality.

- Protection and management of the identified natural areas and related natural systems should be consistent with the recommendations of any reports or studies generated from resource inventories, and is best achieved through a public-private partnership.

Additional policies

- To the extent possible, provide for hazardous waste recycling and drop off points for households to prevent improper discarding of such materials.

- Abandoned wells can become carriers of pollutants into the drinking water aquifers. An effort should be made to adopt procedures to ensure abandoned wells are discovered and properly capped or removed to prevent groundwater contamination.

- The airport is a constant source of contention with township residents. Greater efforts to forge a relationship between the Township and the FAA and Oakland International should be made to address conflicts. The Township should take a more proactive role in determining items that can be enforced, such as hours of operation, and implementation of the recommendations of the noise studies.

- Provide funding to those organizations that can provide technical and educational assistance to the Township staff and residents in the areas of natural resource preservation.

- Create environmental educational opportunities for residents by providing greater access to natural areas that will incorporate interpretation centers or activities.

- Purchase open space. Use models adopted by other communities for passing a small millage that will create a fund for the purchase of open space in to be targeted to those areas identified in natural resource inventories as high priority preservation areas.

RECREATION & OPEN SPACE

GOAL: Maintain the abundance and quality of existing natural resources with Waterford Township, and acknowledge the resulting limitations to development.

GOAL: Enhance and restore existing natural resources that have suffered degradation.

GOAL: Retain the unique character and the desirability of Waterford Township as a "livable community"; a place to live, work, and play, maintaining and promoting the abundance of recreation opportunities.

GOAL: Allow for a range of housing choices within the limitations in the community. Maintain a primarily low density residential community in areas where there are restrictions due to natural features, limiting soil conditions, lack of sewer and water and other urban services, and the capacity of the existing road network,.

How can the Township fulfill the stated goals?

- **Full funding to fulfill the needs of current recreation areas and programs**

- **Community-wide accessible pedestrian pathway**
  - Riverwalk, bike paths, sidewalk improvements

- **Funding for a Community Recreation Center**
  - To include swimming, auditorium, classrooms, etc.

- **Increased passive recreation in nature areas**
  - Better access to places such as Elizabeth Lake Woods Nature Preserve through foot trails and observation sites

- **Better Utilization of the Clinton River**
  - Increased opportunities for active and passive recreation that involves the use of or the resources of the communities streams

- **Increased walkability and access to existing parks**

- **Preservation of Open Space**
  - Close the loop holes in cluster building options to include upland areas in open space design.
  - Explore new tools for open space preservation and analyze areas in our current Ordinance that can be improved. (including innovative site developments that allow for the protection of natural areas)
  - Include areas for play, public gardens and trails in residential site developments
  - Encourage the private preservation of open space through scenic easements and dedications
  - Encourage and preserve links of natural and open areas to natural resource areas, schools, parks and recreation areas.

- **Inventory natural resource areas**
  - Wetland, and associated upland inventories to catalog high quality natural resource areas that could be designated as areas that need protection. (analysis of

wetlands, natural resource complexes by the County, and species inventories by the Michigan Natural Features Inventory)
- Educate community on the function and importance of wetlands and open space areas.
- Incorporate interpretation points or signage along wetland or high quality natural areas to point out to the public what is going on, or what they are encountering.
- Township needs a better wetland identification map, and needs to make it visible to the public (displayed at Township Hall).
- Look at ways to strengthen our natural feature buffer Ordinance.

EDUCATION

GOAL:

Assist service organizations to expand and market their current list of services.

OBJECTIVES:

- Compile an accurate, updated list of service organizations
- Solicit materials from service organizations and incorporate them into the new resident packets
- Actively pursue new residents to provide with the new resident packets
- Eliminate deficiencies within the area public services

GOAL:

Provide more recreational opportunities to the citizens of Waterford Township.

OBJECTIVES:

- Create a township based recreational center
- Construct an indoor pool facility
- Install pedestrian pathways
- Preserve the area currently occupied by the Drayton Plains Nature Center
- Accommodate community groups need for space

GOAL:

Continue and strengthen the communication and relationship between the service organizations, Waterford School District, private school system and the Township.

OBJECTIVE:

- Explore existing models through the Michigan Township Association

Coordinate with the public relations department of the different groups

CAPITAL IMPROVEMENTS AND MUNICIPAL SERVICES

GOAL: Maintain Existing Level of Service for Fire Protection

- Continue the maintenance and update of Township fire hydrants
- Ensure effective fire-fighting coverage of Township fire hydrants
- Maintain existing level of EMS service for Township citizens
- Plan for future expansion of EMS needs

GOAL: Maintain and Improve Existing Level of Water Service Lines

- Continue the maintenance and update of water lines
- Ensure and enforce the installation of water line loop systems
- Continue to ensure proper water pressure to hydrants
- Develop a preventative water line maintenance and replacement schedule to be incorporated into the Township capital improvement plan

GOAL: Improve the Storm Drainage System

- Fund and conduct a master storm drainage plan
- Investigate the feasibility of creating and funding a unified township drain authority
- Ensure the inclusion of maintenance and control of road drainage
- Ensure that the impact of all new development and redevelopment on the township's storm drainage system is properly evaluated and minimized

GOAL: Improve the Township Roads

- Investigate stronger Township involvement and participation in the maintenance and improvements of the County road system in Waterford Township
- Ensure that the level of funding for DPW staffing, equipment, and resources is sufficient to properly handle any additional duties related to an expanded Township role in the maintenance and improvement of the Township road system
- Develop an annual Township roads capital needs review process

GOAL: Expand and Improve Non-Motorized Paths (Sidewalks, Bike Paths, and Nature Trails)

- Fund and connect a master non-motorized path construction and maintenance plan

- Construct connections between existing segments of non-motorized paths
- Maintain and improve existing segments of non-motorized paths

GOAL: Improve and Enhance the Township's Utility Infrastructure

- Install all overhead utility wires underground
- Ensure that utility companies possess the capacity to provide full and uninterrupted service for proposed land uses
- Plan for Township use of future utility technology and installation of the necessary infrastructure systems

GOAL: Provide a Preventative Maintenance Schedule for All Township Buildings and Service Systems

- Ensure that all Township buildings are capable of safely and effectively providing the necessary surroundings for Township staff to provide services to Township citizens
- Develop a preventative maintenance schedule for Township buildings to be incorporated into the Township capital improvement plan
- Develop an annual Township buildings capital and maintenance needs review process

GOAL: Maintain Existing Level of Service for All Current Township Services

TRANSPORTATION AND COMMERCIAL IMPROVEMENTS

GOAL: Improve North-South Mobility in Waterford Township

- Investigate the extension of Williams Lake Road north to Nelsey Road
- Pave Hospital Road

GOAL: Improve the Physical Appearance and Functional Character of the Major Corridors in the Township, Particularly Dixie Highway And M-59

- Develop an overlay district for Dixie Highway and M-59 to address signage, lighting, and landscaping
- Develop an Access Management program to reduce the number of curb cuts along Dixie Highway and M-59 and implement using site plan review and other tools
- Require Traffic Impact Studies for major traffic generating uses over a specific size (either acreage, square footage, or number of units)

- Work with MDOT to investigate the possibility of boulevarding Dixie Highway and M-59 and implement if feasible
- Work with Oakland County Planning & Economic Development Services to aggressively market vacant and underutilized parcels, with special attention given to Dixie Highway from Silver Lake Road to Telegraph Road
- Create a Traffic Safety Committee that is responsible for identifying intersection improvements and other smaller scale road projects. The Traffic Safety Committee can assist the Township Board of Trustees in prioritizing the road improvement projects that are undertaken each year
- Contact Grand Trunk Railroad to determine if the railroad right-of-way along Dixie Highway from Watkins Lake Road to Hatchery Road can be landscaped and made into an aesthetic feature for the Township
- Landscape key gateway locations into Waterford Township and pursue sponsorship for the purchase and maintenance of the landscape materials

GOAL: Enhance the Walkability of Waterford Township

- Implement a non-motorized path connection program that connects existing non-motorized paths in the Township. The first priority should be given to connect non-motorized paths that lead to schools and parks
- Develop a non-motorized path master plan and a stable funding source to implement it

GOAL: Improve Transit Options, Especially for the Elderly

- Develop a community sponsored van program aimed at destination users
- Investigate the need for fixed route bus service in the Township

GOAL: Improve Traffic Safety

- Work with the Road Commission for Oakland County to improve the timing of traffic signals
- Identify locations of pedestrian/vehicle/bicycle conflict and make improvements

ECONOMIC DEVELOPMENT

GOAL: Create to an environment that is conducive to the attraction, retention and expansion of businesses.

- Create an economic development coordinator

OR

- Create duties assigned to existing position to facilitate economic development activities
- Develop consistent and friendly policies and procedures
- Provide safe, high speed internet access and communication systems
- Inventory and analyze the existing economic conditions in Waterford Township
- Identify areas within the Township to concentrate economic development efforts
- Ensure consistent zoning and land use

GOAL: Market Waterford Township as a destination for business activities.

- Create an economic development coordinator

OR

- Create duties assigned to existing position to facilitate economic development activities
- Create a business registration program
- Develop a video that showcases the resources of Waterford Township
- Investigate all economic development tools available to Waterford Township
- Work with Oakland County Economic Development and the State of Michigan Economic Development
- Work with the Oakland County International Airport
- Identify areas within the Township to concentrate economic development efforts
- Ensure consistent zoning and land use

GOAL: Identify partnership (public/private public/public) possibilities within the scope of economic development

- Adjacent communities
- Oakland County
- Waterford Business Association
- Lakes Area Chamber of Commerce
- Summit Place Mall
- Oakland County International Airport
- State of Michigan
- Various private industry

GOAL: Educate and inform all Township Boards, Commissions, Committees and Authorities on economic development tools and efforts.

- Provide detailed information sheets for the various economic tools available to Waterford Township.
- Attend seminars and conferences to gain information regarding economic development

Create or assemble an economic development point person to address the economic development strategies for Waterford Township

QUESTIONING GUIDELINES

A key skill for successfully facilitating a discussion is *questioning.* Good questions tend to be open-ended (beginning with what, why, or how) rather than those that require yes/no answers. Questions can serve several purposes. Some of these are listed below along with some sample questions you might use. Questions are used to:

Help involve participants….

- *Let's hear from some others….What do you think about this, John?*
- *Who else hasn't given their opinion yet? What do you think?*
- *Thank you, Lela, that's a very important point, but let's hear from some others…*
- *I'm sorry for interrupting, but I want to hear from everyone…What do you think, Mary?*

Keep the discussion moving or focused

- There's a lot more we could say about this, but we need to move on…What is your opinion about the next objective?

Refocus a discussion that has gone off track

- *This is a very important discussion, but we need to get back to evaluating the land use objectives…Does anyone have anything else to add?*
- *Let's get back on track…what do you think about the next strategy?*

Clarify or get more information

- *What do you mean?*
- *I'm not sure I understand. Would you explain further?*
- *Is there anything else?*

Get at feelings and opinions

- *How do you feel about…?*
- *What interested you most about…?*
- *Does anyone see it differently?*

Get at interpretations, connections, and judgements…

- *Out of all the things we've listed here, which strike you as most important?*
- *How would that affect your (life, family, work, etc.)?*
- *What would be the best possible outcomes?*
- *How does this relate to your own experience?*

THE ROLE OF THE FACILITATOR

A facilitator is the person responsible for helping a group develop an effective process for accomplishing its purpose.

The role of the facilitator is a complicated and often confusing one. The dictionary defines "facilitate" as "to make easier; to lighten the work: help." In our situations the facilitator is someone who helps a group. This simple statement has two key elements

1. **Helping the Group**. Facilitation is a **helping role**. As such, the facilitator is there to serve the group, not to direct the efforts of the group, judge their work or serve any interests other than those of the group. Because it is a helping role, the group often defines the nature of the help needed. No two groups are the same. Successful facilitation is dependent on understanding the group and its needs.

2. **Effective Process**. Process refers to the **how** of a group's effort. IT is distinguished from the **what** or **task** of the group. Process can refer to both the technical process and the interpersonal process within any group effort. Both must work effectively for the group to succeed. In many cases, this means that the facilitator must work to make the group aware of how they are working together and how they may improve.

FACILITATOR CHARACTERISTICS

- Good Oral Communication
- Uses Appropriate Tools
- Keeps the Group Goal Focused
- Writes Clearly
- Balances Individual Participation Styles
- Keeps the Process Moving
- Provides Appropriate Resource Materials
- Listens
- Keeps Discussion Focused
- Helps the Group Reach Decisions
- Dresses Well
- Accurately Communicates the "Sense" of the Group
- Has a "Good" Sense of Humor
- Selects Appropriate Physical Environment
- Summarizes
- Manages Disputes Well
- Encourages Participation
- Understands the Group Task
- Guides the Group Without "Controlling" the Outcome
- Manages the Group's Time
- Assesses Group's Needs

Waterford Focus Groups (Group 1)

SHEET 1: CAPITAL IMPROVEMENTS AND MUNICIPAL SERVICES

LIKES

Line Item:
1.2.1.2
1.2.1.3
1.2.4.1
1.2.6.2
1.2.5.2
1.2.3.4
1.2.5.2

Line Item:	Description:	Tallied Votes:
1.2.6.1	Bury new lines	**2**
1.2.8	Improve instead of maintain	**0**
1.2.6.1	Prioritize money for needed utilities vs. aesthetics/not needed	**2**
Add	Better long-term planning of money and utilities/budgets	**2**
Add	Centralized Rubbish Removal	**6**
Add	?????	**10**

Sheet 2: Economic Development

LIKES

Line Item:
2.2.11

2.2.11.6

Sheet 2 cont: Economic Development

Line Item:	Description:	Tallied Votes:
2.2.1.1	Quantified, Eliminate	**12**
2.2.2.2	Eliminate	**6**

Sheet 3: Education and Public Services

LIKES

Line Item:
3.2.1
3.2.1.2
3.2.2.3
3.2.2.4

Sheet 3 con't: Education and Public Services

Line Item:	Description:	Tallied Votes:
Add	Unstructured Play Areas	**6**
Add	No money to expand services	**0**
Add	Decide if pool is needed/wanted	**0**
Add	Community pool through the schools	**2**
Add	School needs to be integrated into township	**0**
Add	Recycle program for pool	**0**

Sheet 4: Environment

LIKES

Line Item:

Sheet 4 cont: Environment

Line Item:	Description:	Tallied Votes:

Sheet 5: Recreation and Open Space

LIKES

Line Item:
5.4.7.6

Line Item:
5.4.7.5

Sheet 5 cont: Recreation and Open Space

Line Item:	Description:	Tallied Votes:
Add	Explore pool	**4**
Add	Performance Space	**4**

Sheet 6: Transportation and Commercial Corridor Developments

LIKES

Line Item:
6.2.2.1
6.2.4.1

Sheet 6 cont: Transportation and Commercial Corridor Developments

Line Item:	Description:	Tallied Votes:
6.2.2.6	Walkable on M-59/Dixie Hwy	**8**
6.2.1.2	Pave Loche Have	**4**

Sheet 8: Housing & Demographics

LIKES

Line Item:

Sheet 8 cont: Housing & Demographics

Line Item:	Description:	Tallied Votes:
Add	Senior Housing at Summitt Place Mall in empty parking	**2**
Add	Develop Community Neighborhoods with Lakes and non-lake groups	**2**
	Vertical Zoning	**4**
	Delete pre-sale inspection	**2**

Waterford Focus Groups (Group #3, Room 2-1)

Sheet 1: Capital Improvements and Municipal Services

Line Item:	Votes:
1.2.4.1	
1.2.4.1	
1.2.6.1	
1.2.4.2	
1.2.6.2	
1.2.5.3	
1.2.3.1	
1.2.6.3	
1.2.7.1	
1.2.4.3	

Sheet 1 cont: Capital Improvements and Municipal Services

Line Item:	Description:	Tallied Votes:
1.2.3.1	Least Priority	**5**
1.2.1.4	Expand Immediately	**3**
1.2.6.1	Maintain present systems	**13**
1.2.8	Increase Level of Service	**8**

Sheet 2: Economic Development

Line Item:	Votes:
2.2.1.1	
2.2.3	
2.2.2.2	
2.2.2.1	
2.2.1.5	
2.2.4.3	
2.2.4.1	
2.2.2.8	
2.2.1.4	
2.2.4.3	
2.2.1.6	

Sheet 2 cont: Economic Development

Line Item:	Description:	Tallied Votes:
2.2.2.4	Substitute “sources” versus “tools”	**10**
2.2.2.2	Add service organizations	**18**

Sheet 3: Education and Public Services

Line Item:	Votes:
3.2.1.2	
3.2.2.3	
3.2.2.4	
3.2.2.1	
3.2.3.1	
3.2.1.4	
3.2.1.1	
3.2.3.2	

Sheet 3 con't: Education and Public Services

Line Item:	Description:	Tallied Votes:
3.2.2.2	School function	**4**
3.2.2.1	Include skate park	**3**
3.2.2.1	Combine with 3.2.2.2	**5**
3.2.1.1	Include all churches in Waterford	**3**
3.2.2.2	Make outdoor pool	**4**
3.2.2.4	Only when it becomes public property	**5**
3.2.2	Incorporate all items into a community center (except 3.2.2.4)	**6**

Sheet 4: Environment

Line Item:	Votes:
4.3.4.4	
4.4.1.6	
4.3.1.1	
4.2.4.3	
4.4.1.1	
4.2.2.3	
4.3.4.3	
4.4.1.3	
4.2.3.1	

Sheet 4 cont: Environment

Line Item:	Description:	Tallied Votes:
4.4.1.4	Emphasize education of existing staff	**3**

4.3.4.1	Don't spend inordinate amount of staff time or funds on this item	**2**
4.4.1.3	High Priority	**6**
4.4.1.2	Add "at the expense of the property owners"	**1**
4.2.2	Include wetlands ordinance in Master Plan	**2**
4.4.1.6	Include in Master Plan	**4**
Add 4.5.2.2	Include woodland ordinance in Master Plan	**4**
Delete 4.5.2.2	Don't include woodland ordinance from Master Plan	**4**

Sheet 5: Recreation and Open Space

Line Item:	Votes:
5.1.3	
5.2.2.1	
5.1.2	
5.2.3	
5.2.3.1	
5.2.7.1	
5.2.7.2	
5.2.7.3	

Sheet 5 cont: Recreation and Open Space

Line Item:	Description:	Tallied Votes:
5.2.3.1	School function, not Township function	**2**
5.2.3.1	Incorporate into a community center	**6**
5.1.4	Move to Demographics and Housing	**3**
5.2.4.1	Include all parks and DPNC	**2**
5.2.3	Include gym in Community Recreation Center	**1**
5.2.3 / 5.2.3.1	Skate park (combine)	**9**

Sheet 6: Transportation and Commercial Corridor Developments

Line Item:	Votes
6.2.1.1	
6.2.6.1	
6.2.5.1	
6.2.2.2	
6.2.2.4	
6.2.5.2	
6.2.4.2	
6.2.2.3	
6.2.6.2	

6.2.2.5	
6.2.2.1	

Sheet 6 cont: Transportation and Commercial Corridor Developments

Line Item:	Description:	Tallied Votes:
6.2.2.4	Eliminate M-59 from statement	
6.2.4.1	Include School District as partner in riverwalk funding/planning	**1**
6.2.2.4	Include M-59, and add emphasis for gateway improvements, and "explore traffic calming methods"	**15**
Add 6.2.7	Investigate traffic capacity improvements on Williams Lake Road between Airport Road and Dixie Hwy.	**5**
6.2.5.1	Include School District as partner in funding/planning	**4**

Sheet 7: Historic Districts and Neighborhood Nodes

Line Item:	Votes
7.2.1.3	
7.2.2.2	
7.2.1.6	
7.2.1.11	
7.2.2	
7.2.1.20	
7.2.2.5	
7.2.1.19	
7.2.1.1	
7.2.1.9	

Sheet 7 cont: Historic Districts and Neighborhood Nodes

Line Item:	Description:	Tallied Votes:
7.2.1.6	Impossibility	**2**
7.2.1.15	Amend note to state "smooth-colored concrete"	**6**
7.2.1.6	Change "re-route" to "restrict"	**10**
7.2.1.12	Restrict vacant land development to historic district guidelines	**10**

Sheet 8: Housing & Demographics

Line Item:	Votes
8.2.8	
8.2.2.	
8.2.7	

8.2.15	
8.2.6	
8.2.16	
8.2.1.	
8.2.4	
8.2.18	
8.2.12	
8.2.14	
8.2.9	

Sheet 8 cont: Housing & Demographics

Line Item:	Description:	Tallied Votes:
8.2.2	Add "and encourage redevelopment of" after "promote"	**1**
8.2.17	Eliminate	**4**
8.2.3	Eliminate	**4**
8.2.7	Emphasize as a priority	**2**
8.2.17	Minimize development of	**7**

Waterford Focus Groups (Group 4)

Sheet 1: Capital Improvements and Municipal Services

LIKES

Line Item:
1.2.3
1.2.5
1.2.6
1.2.4.1
1.2.6.1
1.2.2.4

Line Item:	Description:	Tallied Votes:
1.2.6	Maintain and Improve Township sanitary sewer	**17**
1.2.1.2	Change word "of" to "with"	**8**

Sheet 2: Economic Development

LIKES

Line Item:
2.2.3
2.2.2.2
2.2.2.4
2.2.2.8
2.2.2.1
2.2.1.2
2.2.3.5

Sheet 2 cont: Economic Development

Line Item:	Description:	Tallied Votes:
2.2.4	Define Educate on what topics	**4**
2.2.4	Coordinate Township Departments to share information	**10**
2.2.4	Educate Township Departments	**6**
2.2.2.6	Can't work with Airport (their end)	**5**
2.2.2.3	Video is Unnecessary	**7**

Sheet 3: Education and Public Services

LIKES

Line Item:
3.2.2.1
3.2.2.2
3.2.2.3
3.2.3

Sheet 3 con't: Education and Public Services

Line Item:	Description:	Tallied Votes:
3.2.2.3	Change/safe pedestrian pathways	**12**
3.2.2.3	Shovel walks and paths	**5**
3.2.2.3	Don't stack snow in sidewalk area	**7**
3.2.2.5	Ensure low costs	**2**
3.2.2.4	Obtain or Retain from Drayton PNC	**2**

Sheet 4: Environment

LIKES

Line Item:
4.2.2.1
4.2.3.1
4.2.4.2
4.4.1.1
4.4.1.3
4.5.1.1
4.4.1.5
4.5.3.1

Sheet 4 cont: Environment

Line Item:	Description:	Tallied Votes:
4.2.2.1	Too Late	**24**

Sheet 5: Recreation and Open Space

LIKES

Line Item:
5.1.1
5.2.2
5.2.3
5.2.1
5.2.7.2

Sheet 5 cont: Recreation and Open Space

Line Item:	Description:	Tallied Votes:
5.2.8.2	Educate Developers	**7**
5.2.8.6	Consistency of Ordinances	**11**
5.2.2.1	No maintenance of existing walks	**10**

Sheet 6: Transportation and Commercial Corridor Developments

LIKES

Line Item:
6.2.1
6.2.2.2
6.2.2
6.2.4
6.2.2.5

Sheet 6 cont: Transportation and Commercial Corridor Developments

Line Item:	Description:	Tallied Votes:
6.2.2.3	No Traffic Study	**5**
6.2.11	Crescent Lake Road to Dixie Hwy	**2**
6.2.2	Add Telegraph	**4**
6.2.3.3	Speed Reduction	**3**
6.2.3.4	Consistent Signal Phases (left turns)	**10**
6.2.2.4	Not feasible	**4**

Sheet 7: Historic Districts and Neighborhood Nodes

LIKES

Line Item:
7.2.1.3
7.2.1.4

Line Item:
7.2.1.13
7.2.1.9

Sheet 7 cont: Historic Districts and Neighborhood Nodes

Line Item:	Description:	Tallied Votes:
7.2.1.3	Signage not signing	**10**
7.2.1.15	Stamped concrete not repairable	**14**

Sheet 8: Housing & Demographics

LIKES

Line Item:
8.2.1
8.2.5
8.2.7
8.2.10
8.2.14

Sheet 8 cont: Housing & Demographics

Line Item:	Description:	Tallied Votes:
8.2.10	Burden on Seller	**9**
8.2.13	Don't need nodes/not feasible in Waterford	**14**
8.2.15	Widespread rather than Central	**2**

Waterford Focus Groups (Group 5)

Sheet 1: Capital Improvements and Municipal Services

LIKES

Line Item:
1.2.5
1.2.4.1
1.2.6.1
1.2.1.3
1.2.8
1.2.4.3
1.2.3.3

Line Item:	Description:	Tallied Votes:
1.2.6.1	Underground utilities	**2**
1.2.1.3	Maintain existing services	**5**
1.2.2.4	Preventive maintenance program	**4**
1.2.7.3	Township buildings	**8**

Sheet 2: Economic Development

LIKES

Line Item:
2.2.1
2.2.2.5
2.2.1.6
2.2.1.5
2.2.2.3
2.2.4.1
2.2.2.6

Sheet 2 cont: Economic Development

Line Item:	Description:	Tallied Votes:
Add	Mentoring with businesses and schools	**10**
2.2.1.3	Delete	**0**
2.2.1.3	Clarify	**3**

Sheet 3: Education and Public Services

LIKES

Line Item:
3.2.2.1
3.2.2.4
3.2.1.3
3.2.1.1
3.2.1.4
3.2.2.2

Sheet 3 con't: Education and Public Services

Line Item:	Description:	Tallied Votes:
3.2.1.3	Delete	**0**
3.2.1.2	Delete	**0**
3.2.1.1	Clarify users and compilers, and distributors	**3**
3.2.1.3	To be communicative and Advertise to the community	**10**

Sheet 4: Environment

LIKES

Line Item:
4.4.1.1
4.2.3.1
4.2.1.1
4.3.3.1
4.2.4.1
4.2.2.2
4.2.2.1
4.3.2.1
4.3.3.2

Sheet 4 cont: Environment

Line Item:	Description:	Tallied Votes:

4.4.1.6	Delete – purchase open space	**0**

Sheet 5: Recreation and Open Space

LIKES

Line Item:
5.2.2
5.2.3.1
5.2.7.1
5.2.7.3
5.1.3

Sheet 5 cont: Recreation and Open Space

Line Item:	Description:	Tallied Votes:
5.2.7.3	Delete	**2**
5.2.8.3	Other means of communicating information rather than signs	**2**
5.2.8.2	Delete	**0**

Sheet 6: Transportation and Commercial Corridor Developments

LIKES

Line Item:
6.2.3
6.2.1
6.2.2.4
6.2.2.1
6.2.2.3
6.2.2
6.2.1.1
6.2.1.4
6.2.5.1

Sheet 6 cont: Transportation and Commercial Corridor Developments

Line Item:	Description:	Tallied Votes:
6.2.1.1	Delete	**1**
6.2.1.2	Delete	**2**
6.2.5.2	Delete	**2**
6.2.6.1	Delete	**3**

Sheet 7: Historic Districts and Neighborhood Nodes

LIKES

Line Item:
7.2.1.2
7.2.1.5
7.2.2.4
7.2.1.15
7.2.2
7.2.1.6
7.2.2.1
7.2.2.3

Sheet 7 cont: Historic Districts and Neighborhood Nodes

Line Item:	Description:	Tallied Votes:
7.2.1.16	Delete (millages)	**6**
7.2.10	Tax abatement for rehabilitation of property	**5**

Sheet 8: Housing & Demographics

LIKES

Line Item:
8.2.2
8.2.18
8.2.15
8.2.8
8.2.3
8.2.5
8.2.11
8.2.7
8.2.14

Sheet 8 cont: Housing & Demographics

Line Item:	Description:	Tallied Votes:
8.2.3	Cost is too high	**2**
8.2.6	Delete	**5**
8.2.15	Delete	**1**

WORKSHEET

Date_____
Location_____
Group Location_____

- Put the date, your location, and group number at the top of this sheet
- Complete this sheet prior to the small group activity. Your items will be the focus of the group discussion. All sheets will be collected by the facilitator.
- Your registration packet contains a list of draft regional land use goals and objectives. Review this sheet and mark those you especially like, or those that need to be changed or deleted.
- Answer the following questions.

1) Which goals, policies and/or objectives do you like most? List at least three below.

Goal # Objective/Policy Descriptive Words

_____--_____--_____

_____

2) Which goals, policies and/or objectives would you change? Write the changes you would make to at least three of these below.

Goal # Objective/Policy Descriptive Words

_____--_____--_____

_____

_____--_____--_____

3) Are there any goals, policies and/or objectives you would add?

Write them below.

_____--_____--_____

_____

_____--_____--_____

_____

_____--_____--_____

_____

4) Are there any you would eliminate? Which ones and why?

Goal # Objective/Policy Why Eliminate

_____--_____--_____

_____

_____--_____--_____

_____

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

ICE BREAKER EXERCISE

Every facilitator should ask the following three questions in a round robin fashion.

A.) Ask the following 2 questions and scribe on the back of the Guiding Principles Exercise sheet :

1. What is your name?
   Only scribe the first name.

2. How long have you lived in Waterford Township?
   Each person should say a number. If they say all their life, then ask for a number. If they say only a few months, then write 1 year. Total the number of years when everyone has answered.

B.) Ask the following question and scribe on the back of the same sheet:

1. What do you value most in Waterford?
   Only write 1-2 words and scribe on the same sheet

CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

SMALL GROUP ACTIVITY

Guiding Principles

Assists people to probe into issues and then narrow down their choices to a specific number of key action items.

Small Group Activity

Step One: The ***group*** should read each opposing Principle and discuss the pros and cons for each. After approximately two minutes the group will vote on how they feel collectively about that line item. Only ***one blue sticky dot*** will be used per line and it should be placed in the position that ***best*** represents the group's opinion. Repeat this for all of the Principles. If at the end of the exercise someone wants to propose a new Principle to be tested, write it into the squares on the blank sheet, discuss and then vote.

Step Two: Each ***individual*** will vote on the Principles that they feel are the MOST important to them. You will be given ***three sticky dots*** to choose your top three issues.

Red = 5 points
Yellow = 3 points
Black = 1 point

Step Three: Add up the points for each issue. Once all groups have completed the previous two steps, a spokesperson for each group will report the issue that collected the MOST points. Each group is responsible for selecting their own spokesperson.

Charter Township of Waterford Master Plan Update

Town Forum Evaluation Form

Your comments and impressions are important to us. Please complete this form and leave at your table. Thank you for your continued support of the Township's efforts to improve the quality of life in Waterford.

		Strongly Agree	Agree	Disagree	Strongly Disagree
1.	The presentations were informative and well presented.				
2.	The presentation helped me to focus on Township issues.				
3.	The small group activity was productive.				
4.	The small group activity addressed the issues that are important to me.				
5.	I am interested in attending the next town forum.				
6.	Tonight's town forum met my expectations.				
7.	Overall, the town forum was effective in gathering public input.				
8.	Other comments.				

THE CHARTER TOWNSHIP OF WATERFORD MASTER PLAN UPDATE

PUBLIC MEETING REPORT

To: Bob Vallina, AICP
Community Planning and Development Director

From: Mike Howell, AICP
HNTB Michigan, Inc.

Date: November 27, 2001

NOMINAL GROUP EXERCISE, MASTER PLAN COMMITTEE OF THE WHOLE

On September 25, 2001 a small nominal group exercise was conducted with the Master Plan Committee of the whole. First the Committee of the Whole was asked to evaluate the Draft Goals and Objectives and determine which ones they liked, which they would change or add, and/or which they would eliminate. In order to conduct the exercise and get a small group perspective on the Draft Goals and Objectives, the committee was then broken down into smaller groups. There were five groups of eight to ten people each.

Draft Goals and Objectives were developed for the following categories:

1. Capital Improvements and Municipal Services,
2. Economic Development,
3. Education and Public Services,
4. The Environment,
5. Recreation and Open Space,
6. Transportation and Commercial Corridors,
7. Historic Districts and Neighborhood Nodes, and
8. Demographics and Housing.

Below is a listing of the most liked draft goals and objectives, and a brief summary of the results for each section.

CAPITAL IMPROVEMENTS AND MUNICIPAL SERVICES

1. Improve the storm drainage system.
2. Fund and conduct and Master Storm Drainage Plan.
3. Improve the Roads
    a) Better participation by the township in maintenance and improvements to the roads.
        1) Ensure that the DPW is properly funded and equipped to handle the added responsibility, and
        2) Develop a road Capital Needs Plan.

4. Expand and improve non- motorized paths.
    a) Include a non-motorized path Master Plan,
    b) Connect existing paths, sidewalks, trails, etc., and
    c) Improve and maintain existing non-motorized paths.
5. Relocate overhead utility lines underground.

There were votes for eliminating the goal of a drainage master plan and anything dealing with expansion of non-motorized paths. There were suggestions to add a goal for township controlled trash pick-up. Overall people liked the draft goals and objectives and stressed that all existing services should be maintained to keep providing existing levels of service and expand as necessary for population growth.

ECONOMIC DEVELOPMENT

1. Create an environment to attract, retain and expand businesses.
    a) Create an Economic Development Co-ordinator position,
    b) Inventory and analyze economic conditions,
    c) Identify areas to concentrate economic development efforts, and
    d) Consistent zoning and land use policies.
2. Market Waterford as a destination for business.
    a) Create a business registration program.
3. Identify partnership (public/private, public/public) possibilities with adjoining communities, the airport, Oakland County, etc.
4. Educate and inform elected and appointed officials on economic development tools and efforts.

Although the goal of creating an Economic Development Co-ordinator position was well liked, there were also several votes to eliminate it. Overall, the goals and objectives were well received.

EDUCATION AND PUBLIC SERVICES

1. Assist service organization providers in expansion and marketing their services.
    a) Compile an accurate list of service organizations.
    b) Incorporate service organization material into new resident welcome packets, and
    c) Eliminate deficiencies in Public services.
2. Provide more recreational opportunities.
    a) Create a Township recreation center.
        1) Include indoor and outdoor pools, and
        2) Skate park
    b) Install non-motorized pathways.
    c) Preserve Drayton Plains Nature Center.
3. Strengthen communication between township, schools and service organizations.

The only votes for elimination were for the recreation center, pool and non-motorized paths, but those goals also received the most support.

ENVIRONMENT

1. Wetland protection
2. Woodland protection
3. Enhance and restore existing natural resources.
4. Household Hazardous waste drop off program
5. Forge a better relationship with the airport.
    a) Reduce noise from the airport.
    b) Have well defined hours of operation at the airport.
6. Purchase open space and environmentally sensitive land.

There were several people that liked the whole set of goals and objectives for this section. The only goal that received votes for elimination was the one in regards to purchasing open space and environmentally sensitive lands.

RECREATION AND OPEN SPACE

1. Develop community wide pedestrian or non-motorized pathways.
    a) Riverwalk, sidewalk and bike path maintenance and improvements, and
    b) Increased walkability throughout the Township.
2. Community recreation center
    a) Including swimming pools, classrooms, gym, skate park etc.
3. Preserve open space
    a) Close loopholes in cluster building option,

b) Analyze current ordinances to update open space requirements and preservation, and
c) Include play areas, public gardens and trails in new residential development.

The community center, pool and pathways were once again the contentious items with lots of support and several people questioning the need for those items. Overall, there seemed to be majority support for all of the goals and objectives in this category.

TRANSPORTATION AND COMMERCIAL CORRIDORS

1. Investigate the possibility of extending Williams Lake Road to Nelsey Road.
2. Improve the physical appearance of major corridors in the township.
    a) Overlay districts for signage, landscaping and lighting,
    b) Re-locate overhead utilities underground,
    c) Improve access management to reduce curb cuts,
    d) Work with MDOT on improvement possibilities to M-59, Dixie Highway and Telegraph Road, and
    e) Partner with Oakland County Economic Development Services to help market under-utilized parcels in main corridors.
3. Enhance the walkability of the Township.
    a) Develop a non-motorized path master plan.
    b) Provide a stable funding source for implementation.
4. Develop a community sponsored van/bus program.
5. Improve timing of traffic signals.

The only goals that received negative feedback were:

- Enhancing the walkability of the Township,
- Putting overhead utilities underground,
- Sponsoring a van/bus program, and
- Extending Williams Lake Road.

The draft goals and objectives were, for this section, generally accepted as beneficial for the Township.

HISTORIC DISTRICTS AND NEIGHBORHOOD NODES

1. Re-route large trucks off of Andersonville Road.
2. Gather information on financial assistance possibilities for rehabilitating historic buildings.

3. Neighborhood nodes
    a) Identify and promote potential node areas in the township.
    b) Increase walkability between and to neighborhood nodes.
    c) Make the CAI building a community center and a neighborhood node.
    d) Promote Airport Road and Hatchery Road as a neighborhood node.
        i) Install traffic calming,
        ii) Have consistent streetscape and lighting,
        iii) Create a pocket park, and
        iv) Increase walkability in the area.

The areas of differing opinions were the concept of neighborhood nodes and re-routing truck traffic off of Andersonville Road, ironically those items also had the most votes for people liking them.

DEMOGRAPHICS AND HOUSING

1. Develop a community identity.
2. Develop non-lake front housing greater than $300K.
3. Eliminate substandard housing.
    a) Require inspections of rental house and units, and
    b) Tougher code enforcement.
4. Improve entrances/gateways into the Township.
5. Develop a Community Center at the Civic Center
6. Designate Summit Place Mall as a re-development area.
    a) Allow for senior or upscale multi-family housing in current parking lots.
7. Explore live/work concept for designated neighborhood node areas.

The goal to require a pre-sale inspection of a house was the most disliked and had support for elimination, however a majority liked the idea of having inspections for rental housing. There was also dissent for the community center, the neighborhood node concept, and for allowing multi-family housing at Summit Place Mall.

SUMMARY

The majority of the draft goals and objectives were well received by the Committee of the Whole, although there were a few that fueled dislikes. The interesting item was that the goals and objectives that had votes to eliminate generally also had the most support. The proposed changes to the goals and objectives were mainly semantic and for less repetition of the same issue in the different sections. This information along with the phone survey allowed us to develop the topics for the Town Forum guiding principal exercise.

GUIDING PRINCIPLE EXERCISE, TOWN FORUM

On October 17, 2001 a Town Forum was held and a guiding principles exercise was conducted. Utilizing the information from the phone survey and the nominal group exercise with the Committee of the Whole, 20 issues were developed for use at the Town Forum.

The issues were presented in two polar opposite principles, and the groups were asked to reach a consensus on whether they "strongly agreed" or "agreed" with one of the principles or if no consensus could be made, declare "undecided". The groups did this for all 20 issues and at the end they could vote individually on the principals most important to them. They were given three votes worth, five, three, and one point to be placed on the most important, second most important, and third most important principal to them.

There were seven groups of five to seven people in each group. Attached is the tally sheet for the combined results.

SUMMARY

From the results it becomes apparent that a majority of the groups agreed with the majority of the principles for each issue. Only a couple of the issues could be considered undecided or slightly leaning towards one of the principles. Weighing how the groups voted and taking into account the importance point totals, below is a summary list of how the different principles fared.

STRONGLY AGREED

- Overhead utility wires should be placed underground.
- Keeping the current trash system, each area of the Township should have a specific day designated for trash pickup.
- Businesses should be required to register with the Township.
- The Township should use tools like videos and brochures to market for economic development.
- The Township should develop a Community Center.
- The Community Center should have a pool.
- The Township should build interconnected pedestrian pathways throughout the community.
- Large trucks should be restricted or rerouted from Andersonville Road.
- Allow mixed-use development at Summit Place Mall.
- The Township should have an inspection program for rental properties.
- The Township should not have a pre-sale house inspection program because it would be too expensive for the seller.

- Pedestrian safety improvements along M-59 and Dixie Highway should be a high priority.
- Aesthetic criteria along major roads.
- Access management along major roads should be a high priority.
- The Township should pursue new road improvements/designs including traffic calming for M-59 and Dixie Highway.

AGREED

- The Township should fund and conduct a Storm Drainage Plan.
- The Township should create an Economic Development Coordinator position.
- The Township should promote the neighborhood node concept.

UNDECIDED

- The Township should provide trash service.
- The Township should purchase land for parks and preservation of environmentally sensitive land.

Both of these issues by group votes appear to be undecided, but by the individual voting they appear to lean slightly towards something the Township should incorporate.

Waterford Township Master Plan
Guiding Principles Exercise Tally Sheet **October '01**

	This is one of the most important issues to me.	Principle	Strongly Agree	Agree	Undecided	Agree	Strongly Agree	Principle	This is one of the most important issues to me.
1	6	The Township should fund and conduct a Storm Drainage Plan.		4	2	1		A Storm Drainage Plan is not a priority at this time.	
2	19	Overhead utility wires should be placed underground.	3	3	1			Overhead utilities are fine in their current location.	
3	15	The Township should provide trash service for all residents.	1		3	2	1	The current trash system is adequate.	
4	6	With the current trash system should each area of the Township have a specific day for trash pick up.	3	1	2	1		The current trash system is adequate.	
5	17	The Township should create an Economic Development Coordinator position.	1	3	1		2	The Township should just assign economic development duties to a current employee.	
6	22	Businesses should be required to register with the Township.	5	2				Businesses should not be required to register with the Township.	
7		The Township should use tools like videos and brochures to market for Economic Development.	3	4				The Township does not need to market for economic development.	
8	36	The Township should develop a Community Activity Center.	2	3	1	1		The Township does not need a Community Activity Center.	
9	18	If a Community Center is built it should have a pool.	3	1	2		1	The schools should be responsible for developing and maintaining a community pool.	6
10	11	The Township should build interconnected pedestrian pathways and sidewalks throughout the community.	4	1	2			More paths and sidewalks are not needed at this time.	9
11	3	Large Trucks should be restricted or rerouted from Andersonville Road	3	4				Andersonville Road is a convenient route for truck traffic and no restrictions and/or rerouting should be done.	
12	9	The Township should promote the Neighborhood Node Concept.	2	2	2	1		Neighborhood Node Concept is not appropriate for Waterford.	
13	15	Allow mixed use development, such as offices, senior housing, and multi-family housing, at Summit Place Mall	3	3		1		Summit Place Mall is fine for commercial use only.	
14	4	The Township should have an inspection program for rental properties to ensure that they meet code requirements.	3	2	1		1	There is not a problem with rental properties that would require inspections	10
15	4	A pre-sale house inspection should be required to ensure house on the market meet code requirements.			1	3	3	Pre-sale house inspections are too expensive for the seller and should not be done.	6
16	9	The Township should purchase land to augment parks and preserve environmentally sensitive areas.	2	1	1	2	1	The Township does not need to purchase any more land for parks or environmental preservation.	
17	14	Pedestrian safety improvements along M-59, Dixie Highway and other major roads should have a high priority.	5	1	1			No improvements are necessary for pedestrian safety along the major roads.	
18	18	To enhance the appearance along the major roads the Township should pursue aesthetic criteria for signage and landscaping.	6	1				The appearance along major roads is not a major concern for the Township.	
19	8	Improvements to access management including the number of driveways along major roads, such as M-59 and Dixie highway, should be a high priority.	7					Improvements to access management including the number of driveways along major roads, such as M-59 and Dixie highway, is not a high priority.	
20	12	New road design and/or improvements on M-59 and Dixie Highway for traffic calming/management are good ideas, and therefore should be pursued by the Township.	4	3				New road design and/or improvements on M-59 and Dixie Highway for traffic calming/management are unnecessary.	
21	5	North/South access RE: Railroad overpass/underpass	1					Not a problem	

Waterford Township Master Plan
Guiding Principles Exercise — Top 5 Guiding Principles

Oct-01

	This is one of the most important issues to me.	Principle	Strongly Agree	Agree	Undecided	Agree	Strongly Agree	Principle	This is one of the most important issues to me.
1	**36**	The Township should develop a Community Activity Center.	2	3	1	1		The Township does not need a Community Activity Center.	
2	**22**	Businesses should be required to register with the Township.	5	2				Businesses should not be required to register with the Township.	
3	**19**	Overhead utility wires should be placed underground.	3	3	1			Overhead utilities are fine in their current location.	
4	**18**	If a Community Center is built it should have a pool.	3	1	2		1	The schools should be responsible for developing and maintaining a community pool.	**6**
5	**18**	To enhance the appearance along the major roads the Township should pursue aesthetic criteria for signage and landscaping.	6	1				The appearance along major roads is not a major concern for the Township.	

Waterford Township Master Plan
Guiding Principles Exercise **1-May-02**

	This is one of the most important issues to me.	Principle	Strongly Agree	Agree	Undecided	Agree	Strongly Agree	Principle	This is one of the most important issues to me.
Downtown District									
1		The Downtown District is not important for local shopping needs				4	34	The Township should promote the development of a downtown district to support a mix of residential and commercial uses that maintain vitality and build community.	38
2		A sense of place and a walkable pedestrian friendly streetscape is not important.			8		30	A sense of place and a walkable streetscape should be emphasized	30
3	8	Buildings should be located anywhere on site	4	4		3	3	Buildings should be located toward the front of the site	6
4	4	Parking should be allowed anywhere on a parcel		4		8	4	Parking should be located at the rear of buildings.	12
5		The Township should not facilitate public park9ing lots or parking structures.			4		12	Public parking lots and structures should be developed as the area transitions to a downtown district.	12
Urban Business District									
1	6	The district should be redeveloped to allow large commercial, strip mall and chain restaurant development.		6		4	10	The district should emphasize the existing character of a neighborhood shopping area.	14
2		Development guidelines are not necessary to maintain the existing character of buildings, signs, etc.					16	Development guidelines should be implemented to maintain existing character of buildings, setbacks, signs….	16
3		Shared driveways and parking areas ar not needed.					18	Shared driveways and parking areas should be developed.	18
Planned Destination Center District (Summit Mall Property)									
1		The existing mall site should remain as is or redeveloped on a project specific basis.					58	The Summitt Mall site should be redeveloped into a mixed use destination center.	58
2		Apartment and senior housing should not be located in the district.				8	13	Apartment and Senior housing should be integrated inot the redevelopment plan.	16
3		Commercial recreational activities such as an ice rink is not necessary.				8	24	Commercial recreation activities such as an ice rink should be emphasized in a redevelopment plan	32
4		Landscaping and aesthetics are not important.					16	Landscaping and aesthetics should be enhanced to minimize coverage of asphalt.	16

Continued on next page…..

Rural Character Overlay									
1		Waterford will be a built out community and rural character is not important.				4	22	The rural character of the4 SW corner of the Township should be protected as new development occurs.	26
2		The existing single family zone is an appropriate use for the SW area of the Township.			4		12	Cluster development or PUD should be used to protect open space and natural resource areas.	12
3	4	This area is not suitable for recrational issues.		4			16	Natural areas should be identified and linked for recrational issues.	16
South Lakes Recreation Overlay									
1	31	The existing land uses should be retained.	31				4	A marina feel should be promoted that emphasizes mixed uses related to marina services.	4
2	10	Marinas should not be developed	10		4		4	Commercial marinas shoulde be encouraged.	4
3	4	Public access should not be deveoped.		4	4	4	4	Public access should be provided to allow access to the lakes.	8
Scenic Overlay District									
1		A new road should not be necessary, and state park land should remain undisturbed.				7	11	A new road should be developed.	18
2		Access to the park is not appropriate along the proposed road.				5	11	A new road should be designed to enhance scenic views and provide access to the park.	16
3		The new road should only allow local access to the state land.				5	17	A new road should become the new north/south connector for Waterford.	22
Redevelopment Area Overlay									
1	24	The existing Golf course should be maintained as is.	24			1	3	The Golf course should be redeveloped.	4
2		The existing gold course should be redeveloped as a private development.			3	4	9	This area should become a public park.	13
3		The area should be redeveloped for single family development similar to the existing residential areas.			3	4	9	A planned community should be developed to provide a variety of housing types.	13
Historical District Overlay									
1	4	A historic streetscape plan is not needed.	4		3		15	A historic themed streetscape plan should be developed for the historic district.	15
2		Truck traffic is not an issue.			1	4	49	Cut through truck traffic should be prohibited in the historic district.	53
3	3	Historic boundaries should remain as they are.	3		1	1	15	Historic district boundaries should be re-evaluated.	16
General Items									
1		Neighborhood Nodes are not important.				4	12	The Township should promote the development of a downtown district to support a mix of residential and commercial uses that maintain vitality and build community.	16
2		There are enough north/south connectors in the Township.					44	A sense of place and a walkable streetscape should be emphasized	44
3	62	No Riverwalk in family dwelling neighborhoods. (added at May town forum)	62					Riverwalk is fine in family dwelling neighborhoods. (added at May town forum)	0

EPIC ▪ MRA WATERFORD TOWNSHIP SURVEY ON MASTER PLAN ISSUES -- JULY 2001

[FREQUENCY REPORT of SURVEY RESPONSES – 298 SAMPLE – ERROR ±5.7%]

SEQUENCE #_____ ZIPCODE:_____ DATE:_____/ /_____
PHONE #_____ INTERVIEWER_____
COUNTY_____ JURIS_____ WARD_____ PRECINCT _____

==========

Hello, this is **(NAME)** from **EPIC ▪ MRA**, a Lansing based survey research firm. We're conducting a random survey with people in Waterford Township about government services and a variety of other local issues. I'd like to take a few minutes of your time to include your opinions. We are not selling anything, and you will not be contacted again because you participated in this survey.

==========

We need to have a balance of men and women in this survey, and we also need to have young people represented. May I please speak to the youngest **[MALE/FEMALE, depending on quota specified on list]** adult, age 18 or older who is at home now?

IF YES: REPEAT INTRODUCTION FOR NEW RESPONDENT & CONTINUE.

IF NO, ASK: "Is there any other **[MALE/FEMALE, as specified]** adult, age 18 years or older, who is at home right now?" **IF NOT, TERMINATE INTERVIEW.**

In which city, township or village do you currently live? **[CODE RESPONSE BELOW OR WRITE IN UNDER "OTHER" IF NOT ON LIST]**

--Waterford Township
--Other City/Township/Village --- **TERMINATE INTERVIEW**
--Don't know/refused ---------- **TERMINATE INTERVIEW**

___01. Did you get a chance to vote in the November 2000 election when George W. Bush and Al Gore were running for president? How about in the 1998 election when John Engler and Geoffrey Fieger were running for governor? **[DO NOT READ-CODE RESPONSE]**

20% Yes, only in 2000
2% Yes, only in 1998
71% Yes, both 2000 & 1998
1% Was too young then to be eligible to vote
6% Didn't vote/Not registered to vote/Can't remember
--% Refused

___02. Do you own your current home, are you buying it, or, do you rent or lease your home?

64% Own home
25% Buying home
10% Rent or lease home/Apartment
1% Undecided/don't know/refused

___03 For how many years have you lived in Waterford Township?

4% One year or less
14% 2 to 5 years
13% 6 to 10 years
14% 11 to 15 years
7% 16 to 20 years
41% More than 20 years
6% All of respondents life
--% Can't remember/refused
--% Undecided/don't know

___4. Overall, what would you say is the single biggest problem or issue that the Waterford Township government must deal with? **[WRITE COMMENT AS STATED]**

71% Taxes
15% Traffic
12% Planning development
2% Police

[ROTATE Q.5 and Q.6] If you had to narrow it down to a single thing . . .

___5. . . . what is it that you like the most about living in Waterford Township? **[WRITE COMMENT]**

24% Lake access
22% Convenience
14% Quieter than city
11% Community feeling
11% Good people
4% It's clean
3% Lower taxes
2% Good services
2% Schools
2% Everything
3% Nothing
2% Undecided/don't know

And again, if you had to narrow it down to a single thing …

___6. . . . what is it that you dislike the most about Waterford Township? **[WRITE COMMENT]**

26% Traffic
13% Planning, development
3% Taxes
2% Police
56% Nothing

___7. Thinking about all of the tax-supported services that Waterford Township provides, can you tell me which two or three of those public services you use on a regular basis? **[WRITE ALL MENTIONED]**

(First Named Service) *296 respondents*		(Second Named Service) *74 respondents*		(Third Named Service) *5 respondents*	
19%	Nothing				
4%	Police	5%	Police	--%	Police
1%	Firefighters	10%	Firefighters	20%	Firefighters
35%	Library	24%	Library	20%	Library
--%	Arts	1%	Arts	--%	Arts
3%	Senior center	8%	Senior center	--%	Senior center
11%	Parks	38%	Parks	20%	Parks
2%	Schools	8%	Schools	20%	Schools
1%	Snow removal	2%	Snow removal	--%	Snow removal
1%	Recycling	1%	Recycling	--%	Recycling
--%	Nature center	3%	Nature center	20%	Nature center
3%	Other	--%	Other	--%	Other
20%	Undecided/don't know	--%	Undecided/don't know	--%	Undecided/don't know

If Respondent Names Service(s), ASK Q.s 7a, 7b, 7c, As Appropriate
How regularly – in terms of the number of times per week or month or year do you use:

		Times per Week		Times per Month		Times per Year	
		Mean	Median	Mean	Median	Mean	Median
___7a.	(First Named Service)	1.2	.462	5.196	2.00	62.390	24.00
___7b.	(Second Named Service)	1.133	.462	4.904	2.00	58.888	24.00
___7c.	(Third Named Service)	3.028	2.00	13.110	8.660	157.444	104.00

GO TO Q.8a IF "PARKS" WERE MENTIONED — OTHERWISE ASK Q. 8

Only Ask Q. 8 If "PARKS" ***WERE NOT*** Mentioned In Q. 7, Above

___8. How regularly – in terms of the number of times per week or month or year – do you use the park facilities supported by Waterford Township?

Times per Week		Times per Month		Times per Year	
Mean	Median	Mean	Median	Mean	Median
.378	.038	1.638	.167	19.673	2.000

[Code None/Undecided/Can't Say As Zero and GO TO Q. 10]

___8a. Can you please tell me what one or two recreational activities you usually engage in when you visit a Waterford Township park? **[WRITE COMMENT]**

Activity 1		Activity 2	
150 respondents		*68 respondents*	
18%	Walking	12%	Walking
17%	Swimming	21%	Swimming
15%	Softball	7%	Softball
14%	Picnics, barbeques	15%	Picnics, barbeques
11%	Playground	9%	Playground
5%	Boating	6%	Boating
5%	Golf		
3%	Just relaxing	6%	Just relaxing
3%	Rollerblading	4%	Rollerblading
2%	Biking	12%	Biking
2%	Concerts		
2%	Nature center		
1%	Fishing	3%	Fishing
1%	Horseback riding		
1%	Tennis	1%	Tennis
		3%	Volleyball
		1%	Frisbee golf

___ 9.

Active parks are described as offering organized recreational activities, supervised by Township Parks Department Staff on the facilities you would usually find in a park. Passive parks on the other hand, are described as offering recreational facilities such as ball fields, basketball courts, and playground equipment, but that do not have activities sponsored and supervised by Township personnel.

___10. As a general rule, should Waterford Township have more **[ROTATE (1) & (2) BELOW]**

34% Active parks ---------- **ASK Q. 10a.**
OR
33% Passive parks ---------- **GO TO Q. 11**
12% Some of both kinds **(*volunteered*)** ---------- **ASK Q. 10a.**

21% Undecided/don't know **---- GO TO Q. 11**

___ 10a. Instead of cutting or eliminating other township services, would you support a special millage that would increase property taxes to pay for active parks by voting "Yes", or would you vote "No"? **IF UNDECIDED, ASK:** "Well if a millage election were held today and you had to decide right now, would you lean toward voting YES to increase your property tax bill, or would you lean toward voting NO.

34%	Yes	
13%	Lean yes	**47% Total YES**
40%	No	
4%	Lean no	**44% Total NO**
9%	Undecided/don't know	

___ 11. Would you favor or oppose a Township ordinance that would require real estate developers to set aside land for use as a township park in any new residential development -- **[If FAVOR/OPPOSE]** Would that be Strongly or Somewhat?

49%	Strongly favor	
18%	Somewhat favor	**67% Total FAVOR**
10%	Somewhat oppose	
24%	Strongly oppose	**24% Total OPPOSE**
9%	Undecided/don't know	

___12. A section of the township along Andersonville Road between Dixie Highway and Airport Road has been designated as a historic district. Would you favor or oppose the expenditure of tax dollars to upgrade the streetscape and public walkways to encourage more pedestrian traffic in this area? -- **[If FAVOR/OPPOSE]** Would that be Strongly or Somewhat?

23%	Strongly favor	
29%	Somewhat favor	**52% Total FAVOR**
15%	Somewhat oppose	
22%	Strongly oppose	**37% Total OPPOSE**
10%	Undecided/don't know	
1%	Refused	

___13. Would you favor or oppose reducing the speed limit along that part of Andersonville Road that is within the Historic District? -- **[If FAVOR/OPPOSE]** Would that be Strongly or Somewhat?

36%	Strongly favor	
20%	Somewhat favor	**56% Total FAVOR**
10%	Somewhat oppose	
18%	Strongly oppose	**28% Total OPPOSE**

16% Undecided/don't know

___14
___15.
[INTRO TO Q. 16] The concept of "Neighborhood Nodes" involves the creation of local business and activity centers by enhancing roadways, pedestrian pathways and making streetscape improvements. These centers – or nodes – are then linked together to promote a more walkable and accessible community. This concept is often suggested for communities like Waterford Township that do not have a traditional downtown district.

___16. Would you favor or oppose the expenditure of tax dollars to make the necessary improvements to roads, sidewalks and landscaping for the specific purpose of advancing the Neighborhood Node concept in Waterford Township? -- **[If FAVOR/OPPOSE]** Would that be Strongly or Somewhat?

37% Strongly favor
24% Somewhat favor **61% Total FAVOR**
11% Somewhat oppose
22% Strongly oppose **33% Total OPPOSE**
6% Undecided/don't know

___17. Thinking about how you make your way around the community, would you say you choose to walk to your destination . . . . As Often As Possible, Quite Frequently, Only Sometimes, Seldom, or Never?

4% As often as possible **– GO TO Q. 18**
7% Quite frequently------ **GO TO Q. 18.**
16% Only sometimes ---------- **ASK Q. 17a.**
32% Seldom ---------- **ASK Q. 17a.**
41% Never ---------- **ASK Q. 17a.**
--% Can't say/don't know ---------- **ASK Q. 17a.**
--% Refused ---------- **GO TO Q. 18**

___17a. What would you say is the single biggest reason you don't choose to walk to reach a destination within Waterford Township? **[Write Comment As Stated]**

48% Too far
12% Lack of sidewalks
12% Physically unable
11% Rather drive, lazy
7% Time
4% No place to go
4% Safety
2% Undecided/don't know

18. Again thinking about reaching destinations within Waterford Township, how often would you say you ride a bike . . . . as often as possible, quite frequently, only sometimes, seldom, or never?

5% As often as possible **– GO TO Q. 20**
8% Quite frequently**------ GO TO Q. 20**
14% Only sometimes ---------- **ASK Q. 18a.**
19% Seldom ---------- **ASK Q. 18a.**
54% Never ---------- **ASK Q. 18a.**

___18a. What would you say is the single biggest reason you don't choose to ride a bike to reach destinations within Waterford Township? **[Write Comment As Stated]**

21% Physically unable
20% No bike
13% Inconvenient, too far
13% Safety
10% Time
8% Lack of bike paths
7% Wouldn't enjoy, lazy
5% Too far
3% Undecided/don't know
___19.

[Intro to Qs 20-27] M-59 and Dixie Highway are cited by many people as being difficult and sometimes dangerous roads to drive on. I'm going to read a list of suggested changes to these roads and the areas around them, and for each suggested change please tell me whether or not you think that it would make a Big Improvement, a Minor Improvement, It Won't Make Any Difference, or if the suggested change will Make Things Worse. **[ROTATE 20 thru 27]**

		IMPROVEMENT			**No Differenc**		
		big	*minor*	**Total**		**Worse**	undec
___20.	Remove all overhead wires and lines by requiring underground utilities for M-59 & Dixie Hwy	*14%*	*15%*	**29%**	62%	4%	5%
___21.	Require all commercial signs to have a uniform height and general appearance	*30%*	*27%*	**57%**	36%	3%	4%
___22.	Allow fewer driveways into businesses	*15%*	*22%*	**37%**	35%	21%	7%
___23.	Install more sidewalks and bike path	*47%*	*22%*	**69%**	22%	5%	4%
___24.	Allow less landscaping on the street side	*13%*	*15%*	**28%**	51%	16%	5%

___25.	Turn both roads into boulevards	*29%*	*15%*	**44%**	29%	19%	8%
___26.	Encourage more offices and discourage retail businesses from locating along the roads	*15%*	*18%*	**33%**	45%	16%	6%
___27.	Require more uniform landscaping	*22%*	*18%*	**40%**	52%	6%	2%

[INTRO TO Q. 28] Some cities and townships have instituted what is known as a business registration program, where new businesses are required to file papers with the local government that describe the type of activity the incoming business is engaged in. Such a program has been suggested for businesses wishing to locate in Waterford Township.

[ROTATE THE FOLLOWING STATEMENTS]

Advocates of the business registration program say that it lets the township government track the kinds of businesses locating in the township and that that helps with planning efforts. It also allows officials to help business owners by letting them know about any special township ordinances or rules affecting the business before it becomes a problem. In addition, it gives the township more information to locate business owners who have caused problems but who have left the township.

Opponents of the business registration program say that this is just one more way for government to interfere with private businesses and collect information that they don't need. They also say that even though no registration fee is currently planned, it is the nature of such programs to eventually call on business to pay for it by charging a fee and there is nothing preventing the township from doing just that.

___28. After hearing both sides of the issue, would you support or oppose efforts by the Township to start a business registration program? **[If Support/Oppose]** Would that be Strongly or Somewhat?

35%	Strongly support	
18%	Somewhat support	**53% Total SUPPORT**
21%	Strongly oppose	
16%	Somewhat oppose	**37% Total OPPOSE**
9%	Undecided/don't know	
1%	Refused	

Communities experience different kinds of development at different rates. I'd like to read several different types of development and if you would please tell me whether you think there needs to be more of that kind of development in Waterford Township, if there is just about the right amount of it, or if there is already too much of the type of development I read. The first type is:

[ROTATE Qs 29-32]

		More	**Right Amount**	**Too Much**	**undec**
___29.	Residential/Subdivision Development	11%	45%	40%	4%

___30.	Commercial & Retail Development	15%	48%	34%	3%
___31.	Industrial & Manufacturing Development	19%	46%	28%	7%
___32.	Office Space Development	27%	48%	18%	7%

___33. Compared to surrounding communities in Oakland County, would you say that the economic conditions in Waterford Township are better, or worse than they are in nearby cities and townships?

42% Better
19% Worse
31% About the same **(*volunteered*)**
8% Undecided/don't know

___33a. The Summit Place Mall has been an important part of the local economy in Waterford Township, but in the past several years it has declined to the point of being on the verge of closing. Would you favor or oppose Township economic development efforts to keep all or part of Summit Place Mall open for business? -- **[If FAVOR/OPPOSE]** Would that be strongly or somewhat?

51% Strongly favor
18% Somewhat favor **69% Total FAVOR**
10% Somewhat oppose
15% Strongly oppose **25% Total OPPOSE**
6% Undecided/don't know

___34. Which of the following statements comes closer to your view about the role that Waterford Township government should have in trying to get businesses to locate in the township:
[READ AND ROTATE 1 AND 2 BELOW]

27% To encourage economic development and job creation, public tax dollars should be used to provide tax abatements, reclaiming of vacant storefronts, funding for road expansion and improvements, extension of water and sewer services, and job training;

59% Developers and employers pick a location to build because of market conditions and other business considerations, and the taxpayers should not be asked to pay for tax abatements, roads, water and sewer lines, and job training services, that are really just giveaways for them.

14% Undecided/don't know

___35. What kinds of businesses should the township be trying to attract?

15% Small shops
9% A variety

6%	High tech
6%	Professional services
5%	Office space
4%	Factory
4%	Restaurants, bars
2%	Medical hospital
1%	Motels
1%	Recreation center
1%	Shopping mall
14%	None
2%	Other
30%	Undecided/don't know

___36. What one or two things should be offered by the Township in an effort to attract new business and assist existing ones?

(First Named Service) *295 respondents*		(Second Named Service) *14 respondents*	
12%	Nothing		
20%	Tax abatements	14%	Tax abatements
6%	Road improvements	29%	Road improvements
5%	Make more attractive	29%	Make more attractive
4%	Streamline paperwork		
1%	Advertising	14%	Advertising
1%	Create a downtown		
1%	Financial assistance		
1%	Good police protection		
1%	Job training	7%	Job training
1%	Low interest loans	7%	Low interest loans
1%	More city events		
1%	Public transit		
1%	Utilities sewers		
1%	Other		
43%	Undecided/don't know		

___36a. Would you favor or oppose the expenditure of tax dollars to start up a mass-transit bus system in Waterford Township? -- **[If FAVOR/OPPOSE]** Would that be Strongly or Somewhat?

22%	Strongly favor		
19%	Somewhat favor		**41% Total FAVOR**
18%	Somewhat oppose	**GO TO Q. 36c**	
34%	Strongly oppose	**GO TO Q. 36c**	**52% Total OPPOSE**
7%	Undecided/don't know	**GO TO Q. 36c**	

___ 36b. If you knew that other township services would have to be drastically cut or eliminated in order to provide a bus system, would it still remain an issue of high priority for you, or would you rather not see other services cut in favor of this issue?

21% Still a high priority
56% Don't cut other services for this
21% Undecided/don't know
2% Refused

___36c. Instead of cutting or eliminating other township services, would you support a special millage that would increase property taxes to fund a bus system specifically for senior citizens by voting Yes in favor of such a senior bus system millage or would you vote No?

IF UNDECIDED, ASK: "Well if a millage election were held today and you had to decide right now, would you lean toward voting YES to increase your property tax bill, or would you lean toward voting NO.

35% Yes
7% Lean yes **42% Total YES**
48% No
2% Lean no **50% Total NO**
7% Undecided/don't Know
1% Refused

Turning to a different topic …
___37. On a scale of zero to 10, with "0" meaning the lowest possible importance to the local community and "10" being the highest possible importance, please give a rating to the importance of wetlands to Waterford Township.

not important **extremely important**

0	1	2	3	4	5	6	7	8	9	10
--%	3%	2%	2%	2%	13%	4%	8%	15%	10%	41%

mean: 7.839
median: 9.00

___38. While local governments have a great deal of authority in regulating land use in their communities, much of the job of wetlands protection is left to state government. Do you think Waterford Township government should have a greater role in regulating wetlands, or is the current system working well enough without more Township involvement?

43% Greater role
46% Current system
11% Undecided/don't know

___39. Would you favor or oppose the expenditure of tax dollars to start up a Township-wide waste collection service? -- **[If FAVOR/OPPOSE]** Would that be Strongly or Somewhat?

28% Strongly favor
14% Somewhat favor **42% Total FAVOR**
17% Somewhat oppose
32% Strongly oppose **49% Total OPPOSE**
9% Undecided/don't know/refused

___39a. If the township does start a waste collection service, should it include curbside recycling?

87% Yes
10% No
3% Undecided/don't know

___40. Would you favor or oppose the expenditure of tax dollars to institute an annual drop-off program for hazardous wastes such as motor oil, household cleaners, and old batteries? -- **[If FAVOR/OPPOSE]** Would that be Strongly or Somewhat?

53% Strongly favor
25% Somewhat favor **78% Total FAVOR**
6% Somewhat oppose
12% Strongly oppose **18% Total OPPOSE**
3% Undecided/don't know
1% Refused

___41. Knowing that tax dollars would be used to repay the debt, should Waterford Township apply for state of Michigan loans in order to purchase abandoned properties such as gasoline stations?

43% Yes
41% No
16% Undecided/don't know

___42. Overall, how would you rate the job that the Waterford Public School district is doing providing a Kindergarten through 12th Grade education --- would you give the district a positive rating of excellent or pretty good, or a negative rating of just fair or poor?

14% Excellent **-- ASK Q. 43**
40% Pretty good **ASK Q. 43** **54% Total POSITIVE**
16% Just fair **------ GO TO Q. 44**
7% Poor **---------- GO TO Q. 44** **23% Total NEGATIVE**
23% Undecided/don't know **------ GO TO Q. 45**

___43. Why did you give the Waterford Schools a positive rating of **[Excellent/Pretty good] [WRITE COMMENT] -- THEN GO TO Q. 45**

48% Good experience
26% Making good effort
11% Seen much improvement
5% Good teachers
2% No violence
1% Great special education
7% Undecided/don't know

__44. Why did you give the Waterford Schools a negative rating of **[Just Fair/Poor]**
[WRITE COMMENT]

24% Poor, weak curriculum
22% Heard negative things
21% Needs much improvements
18% Not impressed
8% High drop-out rate
1% Poor facilities
5% Other
1% Undecided/don't know

Over the next year or two, several millage renewals will come before the voters. For each one that I read, please tell me, **i**f the election were held today, would you vote YES to renew the millage, or would you vote NO and not renew the existing millage level?
IF UNDECIDED, ASK: "Well if a millage election were held today and you had to decide right now, would you lean toward voting YES to increase your property tax bill to pay for **[The named improvement or service]** or would you lean toward voting NO.
ROTATE Qs 45-47]
The first renewal is for:

				YES			NO		
		vote	*lean*	**Total**	*vote*	*lean*	**Total**	undec	refused
___45.	Fire Protection	*84%*	*2%*	**86%**	*11%*	*--%*	**11%**	2%	1%
___46.	Library Services	*78%*	*3%*	**81%**	*15%*	*1%*	**16%**	2%	1%
___47.	Police Protection	*84%*	*3%*	**87%**	*10%*	*1%*	**11%**	2%	--%

Now, I am going to read a list of infrastructure needs that every city and township must deal with along with a variety of services some local governments provide for their citizens. Using a scale of zero to 10 --- with zero meaning that the item I mention is not a priority at this time --- with ten meaning that it is a very high priority and needs attention right away --- and five meaning that the item is important but not necessarily in need of immediate attention --- please tell me how you would rate each of the following infrastructure needs and other services.
[IF UNDECIDED, CODE 99]

___48. An overall Capital Improvements Fund that would finance sidewalk improvements, storm drainage upgrades, road improvements, and a community recreation building

low priority **high priority**

0	1	2	3	4	5	6	7	8	9	10	undec
5%	1%	1%	4%	4%	30%	3%	13%	10%	3%	24%	2%

mean: 6.473 **median: 7.00**

If a rating of "6" or above is given, ask 48a. and 48b. Otherwise, ask Q. 49

___ 48a. If you knew that other township services would have to be drastically cut or eliminated in order to properly finance a Capital Improvements Fund, would it still remain an issue of high priority for you, or would you rather not see other services cut for the sake of this issue?

33% Still a high priority
53% Don't cut other services for this
12% Undecided/don't know
2% Refused

___48b. Instead of cutting or eliminating other township services, would you vote Yes to support a special millage to increase property taxes to pay for a Capital Improvements Fund or would you vote No? **IF UNDECIDED, ASK:** "Well if a millage election were held today and you had to decide right now, would you lean toward voting YES to increase your property tax bill or would you lean toward voting NO.

44% Yes **------ ASK Q. 48c.**
8% Lean yes **ASK Q. 48c.** **52% Total YES**
36% No **---------- GO TO Q. 49**
3% Lean no **---- GO TO Q. 49** **39% Total NO**
6% Undecided/don't Know **----- GO TO Q. 49**
3% Refused **---------- GO TO Q. 49**

___48c. How much more per year would you be willing to pay in property taxes?
$ _____ **Code "Nothing/Undecided/refused" as Double Zero**
mean: $145.64
median: $100.00

[ROTATE Qs 49 & 50] How about Storm Drainage Improvements; what rating would you give on a zero to ten scale, with zero meaning that it's not a priority at this time and 10 meaning that it is a very high priority and needs to be paid for right away?
[IF UNDECIDED, CODE 99]

___ 49. Storm Drainage alone without other improvements

low priority **high priority**

0	1	2	3	4	5	6	7	8	9	10	undec
14%	3%	4%	7%	7%	31%	3%	8%	5%	1%	16%	1%

mean: 5.038 **median: 5.00**

If a rating of "6" or above is given, ask 49a. and 49b. Otherwise, go to Q. 50

___ 49a. If you knew that other township services would have to be drastically cut or eliminated in order to properly finance Storm Drainage Improvements, would it still remain an issue of high priority for you, or would you rather not see other services cut for the sake of this issue?

46% Still a high priority
34% Don't cut other services for this
13% Undecided/don't know
7% Refused

___49b. Instead of cutting or eliminating other township services, would you vote Yes to support a special millage to increase property taxes to pay for a Storm Drainage Improvements or would you vote No? **IF UNDECIDED, ASK:** "Well if a millage election were held today and you had to decide right now, would you lean toward voting YES to increase your property tax bill to pay for Storm Drainage improvements, or would you lean toward voting NO?

42% Yes **------ ASK Q. 49c.**
6% Lean yes **ASK Q. 49c.** **48% Total YES**
39% No **--------- GO TO Q. 50**
5% Lean no **-- GO TO Q. 50** **44% Total NO**
3% Undecided/don't Know **----- GO TO Q. 50**
5% Refused **---------- GO TO Q. 50**

___49c. How much more per year would you be willing to pay in property taxes?

$ _____ **Code "Nothing/Undecided/refused" as Double Zero**

mean: $81.67
median: $50.00

How about Sidewalk improvements alone, without other improvements; what rating would you give on a zero to ten scale, with zero meaning that it's not a priority at this time and 10 meaning that it is a very high priority and needs to be paid for right away?
[IF UNDECIDED, CODE 99]

___ 50. Sidewalk improvements alone without other improvements

low priority **high priority**

0	1	2	3	4	5	6	7	8	9	10	undec
16%	2%	5%	6%	6%	29%	2%	6%	10%	2%	15%	1%

mean: 5.021 **median: 5.00**

If a rating of "6" or above is given, ask 50a. and 50b. Otherwise, go to Q. 52

___ 50a. If you knew that other township services would have to be drastically cut or eliminated in order to properly finance Sidewalk improvements alone, would it still remain an issue of high priority for you, or would you rather not see other services cut for the sake of this issue?

39% Still a high priority
48% Don't cut other services for this
9% Undecided/don't know
4% Refused

___50b. Instead of cutting or eliminating other township services, would you vote Yes to support a special millage to increase property taxes to pay for a Sidewalk improvements alone or would you vote No? **IF UNDECIDED, ASK:** "Well if a millage election were held today and you had to decide right now, would you lean toward voting YES to increase your property tax bill to pay for Storm Drainage improvements, or would you lean toward voting NO?

38% Yes ------- **ASK Q. 50c.**
12% Lean Yes **ASK Q. 50c.** **50% Total YES**
37% No ------ **GO TO Q. 52**
4% Lean No **GO TO Q. 52** **41% Total NO**
6% Undecided/don't Know ----- **GO TO Q. 52**
3% Refused ---------- **GO TO Q. 52**

___50c. How much more per year would you be willing to pay in property taxes?

$ _____ **Code "Nothing/Undecided/refused" as Double Zero**
mean: $82.37
median: $50.00

___52. How about -- A Community Recreation Center without other improvements -- what rating would you give on a zero to ten scale, with zero meaning that it's not a priority at this time and 10 meaning that it is a very high priority and needs to be paid for right away?
[**IF UNDECIDED, CODE 99]**

low priority **high priority**

0	1	2	3	4	5	6	7	8	9	10	undec
20%	2%	6%	8%	7%	25%	3%	10%	5%	2%	12%	--%

mean: 4.553 **median: 5.000**

If a rating of "6" or above is given, ask 52a. and 52b.
Otherwise Go To Q. 54

___ 52a. If you knew that other township services would have to be drastically cut or eliminated in order to properly finance a Community Recreation Center, would it still remain an issue of high priority for you, or would you rather not see other services cut for the sake of this issue?

30% Still a high priority
56% Don't cut other services for this
10% Undecided/don't know
4% Refused

___52b. Instead of cutting or eliminating other township services, would you vote Yes to support a special millage to increase property taxes to pay for a Community Recreation Center, or would you vote No? **IF UNDECIDED, ASK:** "Well if a millage election were held today and you had to decide right now, would you lean toward voting YES to increase your property tax bill to pay for a Community Recreation Center, or would you lean toward voting NO?

54% Yes ------ **ASK Q. 52c.**
5% Lean Yes **ASK Q. 52c.** **59% Total YES**
28% No ------- **GO TO 54**
3% Lean No **GO TO 54** **31% Total NO**
4% Undecided/don't know ----- **GO TO 54**
6% Refused ---------- **GO TO 54**

___52c. How much more per year would you be willing to pay in property taxes?

$ _____ **Code "Nothing/Undecided/refused" as Double Zero**

mean: $75.62
median: $50.00

Finally, I would like to ask you a few questions about yourself, for statistical purposes only.

__54. Could you please tell me in what year you were born?

[RECORD YEAR HERE ____ ____ ____ ____ AND THEN CODE BELOW]

5% 18 to 24 years -- **(1977 to 1983)**
3% 25 to 29 years -- **(1972 to 1976)**
8% 30 to 35 -------- **(1966 to 1971)**
10% 36 to 40 -------- **(1961 to 1965)**
19% 41 to 49 -------- **(1952 to 1960)**
11% 50 to 55 -------- **(1946 to 1951)**

17% 56 to 64 -------- **(1937 to 1945)**
25% 65 and over ----- **(1936 or before)**
2% Don't know/refused

___ 55. Do you have school age children, age 18 or younger, living in your household?

28% Yes
71% No
% Undecided/don't know
1% Refused

___56. Generally speaking, do you consider yourself a Republican or a Democrat?

(IF DEMOCRAT) Would you consider yourself a strong Democrat or a not very strong Democrat?
(IF INDEPENDENT) Would you consider yourself closer to the Republican or Democratic Party?
(IF REPUBLICAN) Would you consider yourself a strong Republican or a not very strong Republican?

21%	Strong Democrat	
10%	Not strong Democrat	
4%	Independent-lean Democrat	**35% Total DEMOCRAT**
15%	Independent	
9%	Independent-lean Republican	
11%	Not strong Republican	
24%	Strong Republican	**44% Total REPUBLICAN**
2%	Other	**17% INDEP./OTHER**
4%	Don't know/refused	

___57. What is the last grade or level of schooling you completed? **(DO NOT READ -- CODE RESPONSE)**

4% 1st to 11th Grade
28% High School Graduate
4% Non-college post high school (technical training)
25% Some college
24% College graduate
15% Post graduate school
-- % Undecided/don't know
-- % Refused

___58. What is your race or ethnic background - are you White, African American, Hispanic, Asian, or a mixed-race?

93% White
1% African American/Black
1% Hispanic (Puerto Rican, Mexican-American etc.)
2% Asian
2% Mixed race
1% Other
-- % Don't know/refused

___59. Would you please tell me into which of the following categories your total yearly household income falls --- including everyone in the household? Please stop me when I get to the category that applies to you? **(READ LIST --- 1 to 7)**

2% Under $15,000
12% $15,000 to $30,000
12% $30,000 to $45,000
19% $45,000 to $60,000
11% $60,000 to $75,000
13% $75,000 to $100,000
10% Over $100,000
7% Retired **(*volunteered* - ASK: But is there an income category I read that would apply to your household?)**
14% Refused

___60. Sex of respondent **(BY OBSERVATION ONLY)**
46% Male
54% Female

THANK RESPONDENT FOR HIS OR HER TIME AND TERMINATE

APPENDIX L: TRAFFIC ANALYSIS

NOTE: The Community Planning and Development (CPD) Department is completing a review and revision of the incomplete draft traffic analysis attempted by HNTB. Once CPD staff completes the necessary revisions to ensure accuracy and applicability, the analysis will be inserted into this Appendix.

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APPENDIX M: TRANSPORTATION PLAN

NOTE: The Transportation Plan will include sections discussing in detail the Township's thoroughfares, future road lane widths, access management, traffic calming, walkability, and other transportation issues anticipated to arise during the twenty-year period of the Master Plan. During the period in which this Master Plan is effective, the Transportation Plan, when approved by the Planning Commission, is incorporated into this Appendix. The intent of this Appendix is to serve as a collection point for transportation plans developed and approved as part of the Master Plan implementation efforts. Therefore, Appendix M is adopted as part of this Master Plan, by reference to the forthcoming transportation planning content, as prepared by Township staff, and when approved by the Planning Commission.

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APPENDIX N: COMMUNITY FACILITIES ANALYSIS

The following community facilities analysis has been compiled as the foundation for the Township's capital improvements plan. Community facilities include the various buildings, sites, and services that are necessary for governmental entities to provide services to its residents. Several of the community facilities, such as police, fire, recreation, libraries, and public services possess a high profile within the community. Other facilities are used to provide those daily administrative services that are less visible to the public. The majority of the facilities included in this analysis are Township-owned and operated. The Township's overall land usage is also affected by facilities owned and operated by federal, state, and county governments. Therefore, facilities owned and/or operated by these levels of government are included in this analysis. The Waterford School District, Oakland Community College, and Oakland Intermediate School District each own and operate facilities that provide services to Waterford citizens and influence land use policy within Waterford. The frequency and quality of the interrelationships between government, educational institutions, and residential properties constitute an important element in terms of community facilities. Community facilities have an impact on the community's future land use pattern and play a critical part in a municipality's overall development and identity. Often, the impression created by a particular community is directly related to the capacity, functionality and accessibility of its municipal buildings, schools, parks, libraries, and other public facilities.

Therefore, the analysis of community facilities is an important component of a successful and viable Master Plan. It is desirable to plan for and anticipate the land use capacity necessary for these facilities to serve the community as it grows and matures, so that neighborhoods and citizens are not deprived of community facilities at the time of development and redevelopment. The goal in developing a capital improvements plan based on this community facilities analysis is to plan for and guide needed capital improvements and expenditures in a fiscally sound manner and to ensure that these improvements are consistent with goals and policies of Waterford Township and its residents. Consideration of these needs as part of the community's total development offers a practical basis for a community to address these needs during the budgetary process.

GENERAL TOWNSHIP FINANCIAL STRUCTURE

All Township community facilities are dependent upon funding for construction, maintenance, and staffing. As was shown in Appendix A – Background Studies, residential uses account for over 80 percent of the Township's tax base. The current assessed value of the total real property within the Township is nearly 2.6 billion dollars. The assessed value of real and personal property is a critical factor in determining the financial capacity for funding governmental services and facilities. The property tax through real and personal property is the primary revenue-producing tool for the Township. Other revenue sources include state and federal funds, local fees, licenses and permits, district court revenue and other sources. Table N-1 shows the general fund revenues and expenditures for Waterford Township between 1996 and 2003. Property taxes accounted for 31.6% of the total revenue of the Township in 1996, and an anticipated 38.2% of the revenue in 2003. During the same time period intergovernmental revenues decreased approximately 3.3% and interest income decreased 1.1%. The decrease in both sources is a result of the current weak economy and is beyond the control of Waterford government officials. This does place the burden on the local property tax to pay for government services and facilities. Because the assessed value of property within the Township continues to grow, the property taxes generated through the assessments remain relatively stable. One revenue-producing tool that the Township may

consider is tax increment financing (TIF) if a Downtown Development Authority (DDA) is established to achieve Master Plan Goal Four (please refer to pages 9-8 and 9-9). However, a TIF might present a long-term negative impact on the revenue stream for the general fund and special millages if it is not carefully structured. The Township must conduct detailed analysis of the impact of a proposed TIF to ensure that the impact on the general and special millage revenue stream is minimal.

The general fund expenditures for the Township have averaged a 5.9% increase during the past seven years. This expenditure level has kept ahead of the inflation rate during the same time period. However, considering that the Township underwent a substantial paradigm shift in its administrative operation through the implementation of electronic information systems technology, the Township has pursued a measured and reasonable expenditure policy. Since 1996, the Township has established a computer network that fully integrates information processing and electronic communication between all Township offices. In addition, a full-service geographic information system (GIS) was developed and implemented. An electronic document management system has been adopted and is being implemented in some departments, with the goal to fully implement all Township offices in the near future.

The annual Township budget is the key to establishing the Township Board's revenue and expenditure goals. The annual budget determines the operational activities and the capital improvements that will be undertaken during each fiscal year. Consequently, the adoption of the budget represents the most important policy decision of the Township Board. The Township Board has worked to accomplish its goals through a relatively stable total millage rate during the past 23 years, as shown in Figure N-1. The total Township millage rate has averaged 10.005 during this time period, ranging from a low of 8.9681 in 1982 and 1983 and a high of 11.6551 in 1988. The millage rate has remained at 9.6419 during the past six years, with the rate increasing in 2003 to 10.2719 due to voter approval of an additional 0.63 mills for emergency medical services provided by the Fire Department.

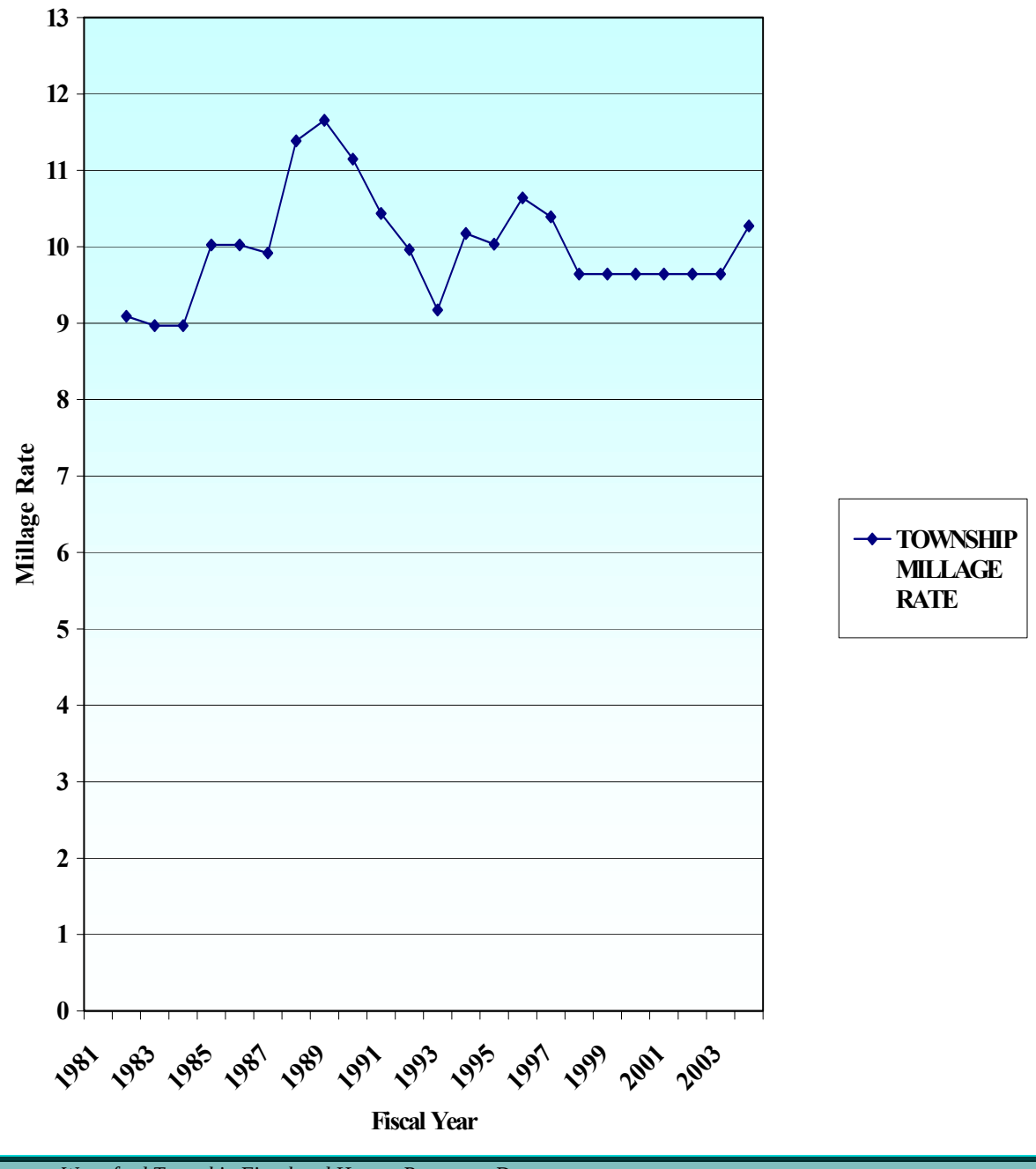
The components of the total millage rate indicates the level of commitment on the part of the community to public safety funding and maintenance of a modern, full-service library. Figure N-2 provides a graphic view of the levels of the different components of the Township's total millage rate during the past 23 years. The Township residents have supported the funding of police and fire services through passage of five millages, two for police and three for fire. In 1998, voters approved a millage to fund the construction of new state-of-the-art buildings to house the Police Department and the Fire Department. Since 1992, Township residents have also passed and renewed a separate millage for the construction of a new main library building. During the 1970s, Township voters approved a millage to fund and maintain a Township-wide bikepath system. However, the millage was not brought back before the voters for renewal in the late 1980s and was allowed to expire. It is therefore unknown whether Township residents would be supportive of reviving such a millage, although the support for the goal of enhancing walkability adopted through this Master Plan indicates that support does exist for a millage such as this. The only millage request during the past 20 years that did not receive the support of the people was for funding the construction of a new community center in 1991. It appears that while there was support for building a new community center, and this support continues to this day as reflected in the goals of this Master Plan, the millage request might have been too high to be supported by the community. A more modest millage request might receive voter approval. Figure N-2 also exhibits the efforts of the Township to adjust the various millage components to ensure a relatively stable overall millage rate. This indicates that any additional millage requests should take into account the Township's historic efforts to maintain and adjust this balance among the millage components.

Table N-1 General Fund History – Waterford Township - 1996-2003

Revenues	Actual 1996	Actual 1997	Actual 1998	Actual 1999	Actual 2000	Actual 2001	Budgeted 2002	Budgeted 2003
Property Tax	$4,797,813	$5,538,231	$5,808,414	$6,266,972	$6,607,475	$6,986,896	$8,037,702	$8,676,025
State Sources	6,439,110	6,098,228	6,321,849	7,230,136	7,152,407	7,623,375	7,657,575	7,537,725
Special Assessments	33,570	21,166	24,188	8,707	9,410	11,948	6,000	1,000
Licenses & Permits	1,191,832	1,393,453	1,423,863	1,333,988	1,045,288	1,131,927	1,130,100	1,264,600
Fines & Fees	2,750,484	2,791,908	3,007,229	3,004,318	2,443,570	2,595,741	2,886,500	2,849,750
Charges for Services	1,307,087	931,622	1,047,235	1,086,060	1,227,749	1,321,429	1,390,570	1,484,338
Interest	828,627	942,901	983,544	651,532	1,132,360	434,824	850,000	500,000
Others	341,464	138,975	186,768	227,514	190,000	226,864	710,104	386,594
Total Revenue	$17,689,987	$17,856,484	$18,803,090	$19,809,227	$19,808,813	$20,333,004	$22,668,551	$22,700,032
General Government	$5,716,361	$6,368,356	$7,223,149	$7,001,460	$7,024,331	$7,526,958	$8,358,856	$8,497,995
Planning, Building	1,247,890	1,358,177	1,590,110	1,598,364	1,695,617	1,813,422	1,891,206	1,929,910
Health & Welfare	209,714	231,363	228,494	188,164	169,584	161,257	199,600	201,600
Recreation & Culture	1,371,439	1,326,567	1,569,653	1,660,537	1,707,764	1,809,509	1,828,754	2,005,592
Capital Expenditures	549,859	537,880	549,063	842,344	696,981	698,061	1,522,008	520,894
Debt Service	144,650	139,635	139,409	126,080	117,150	105,605	113,685	109,558
Other	0	0	0	0	0	123,516	0	0
Operating Transfers Out	6,873,240	7,311,377	7,904,318	7,675,205	8,202,940	8,651,899	10,332,194	10,483,555
Total Expenditures	$16,113,153	$17,273,315	$19,204,196	$19,092,145	$19,614,367	$20,890,227	$24,246,303	$23,749,104
Excess Revenue Over (Under) Expenditure	$1,576,834	$583,169	$(401,106)	$717,073	$194,446	($557,223)	($1,577,752)	($1,049,072)
Beginning Fund Balance	$2,578,322	$4,155,156	$4,738,325	$4,337,219	$5,054,292	$5,248,738	$4,691,515	$3,113,763
Ending Fund Balance	$4,155,156	$4,738,325	$4,337,219	$5,054,292	$5,248,738	$4,691,515	$3,113,763	$2,064,691

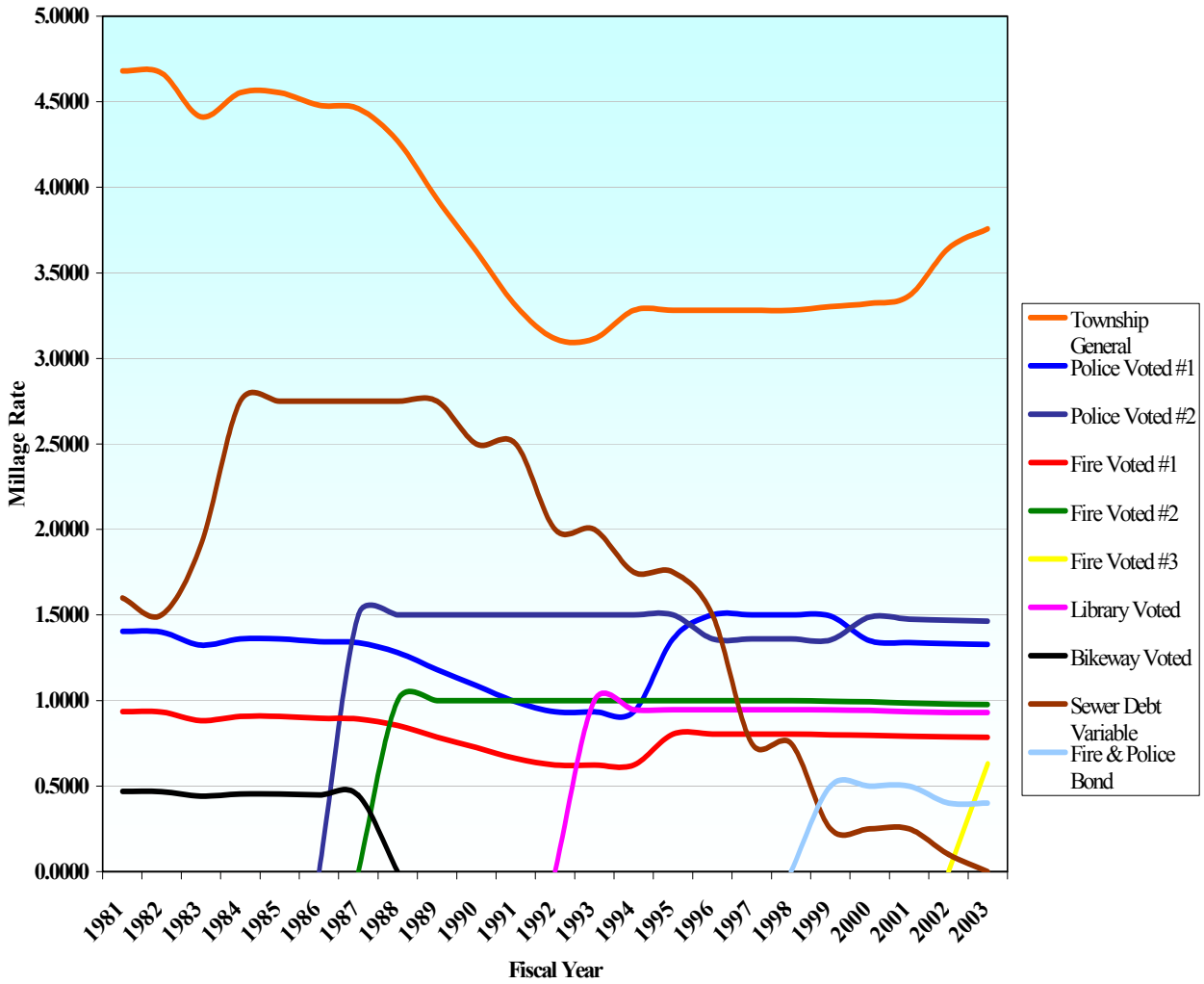
Source: Waterford Township Fiscal and Human Resources Department

Figure N-1 Township Millage Rate – 1981-2003



Source: Waterford Township Fiscal and Human Resources Department

Figure N-2 Components of Township Millage Rate – 1981-2003



Source: Waterford Township Fiscal and Human Resources Department

In addition to financial resources, staffing is necessary to provide services and to operate and maintain community facilities. Table N-2 shows the numerical growth of the number of staff positions budgeted for each department during the past 33 years. Overall, staff positions have grown 183%, from 136 positions in 1970 to 385 positions in 2003. Over 53% of the 249 positions added since 1970, were in the Police and Fire Departments, which is also reflective of the support given to these two public safety services by citizens through the millage approval process. The numbers indicate that staff level has grown 750% for parks and recreation services, 400% for library services, 244% for police services, 229% for fire services, 139% for public works services, 133% for district court services, and 89% for general government services.

Table N-2 Budgeted Full-Time Positions 1970-2003

Department	Fiscal Year 1970	Fiscal Year 1984	Fiscal Year 1994	Fiscal Year 1999	Fiscal Year 2001	Fiscal Year 2002	Fiscal Year 2003
Supervisor/Assessing	9	7	10	10	10	10	10
Clerk	6	5	6	7	7	7	7
Treasurer	6	8	10	7	7	7	7
Information Systems	0	0	0	4	4	4	4
Fiscal & Human Resources	0	2	1	4	4	4	4
District Court	15	28	33	32	34	35	35
Community Planning & Development	4	3	6	9.5	14.5	14.5	14.5
Community Development	0	3	3	3.5	0	0	0
Building & Engineering Department	8	11	11	16	16	16	16
Parks & Recreation	2	8	11	12	12	13	13
CAI Building	0	0	0	3	3	3	3
Hess-Hathaway	0	0	0	0	1	1	1
Police Department	32	74	98	121	122	117	117
Animal Control	2	1	0	0	0	0	0
Fire Department	21	31	51	55	56	56	69
Library	4	7	9	18	19	20	20
Water & Sewer	22	32	42	52	51.5	52.3	52.3
Facilities & Operations	5	11	11	13	13	12.2	12.2
TOTAL	**136**	**231**	**302**	**367**	**374**	**372**	**385**

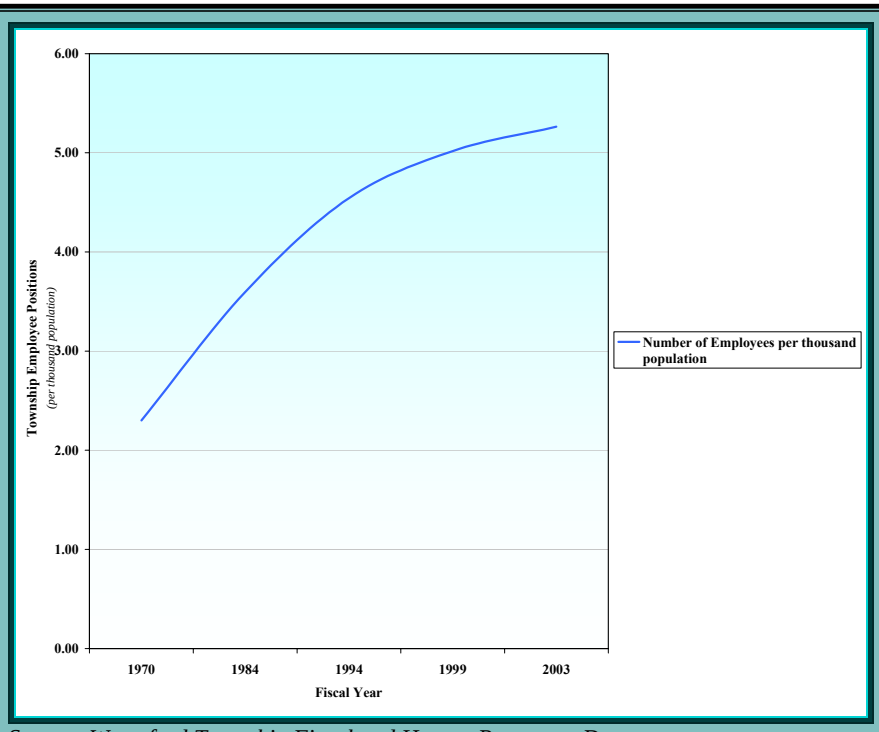
Source: Waterford Township Fiscal and Human Resources Department

NOTES:

- The Information Systems Department was created in 1997. Two employees previously assigned to the Treasurer's Office were moved into this department.
- The Facilities & Operations Department and Water & Sewer Department were made divisions of a new Department of Public Works in 1994.
- The Building Department and Engineering Department were merged into one Building and Engineering Department in 1994.
- The Township purchased the CAI Building in 1999 and hired three full-time employees to staff it. Maintenance and operation of the CAI Building and Hess-Hathaway Park are the responsibility of the Parks & Recreation Department.
- The Community Development Department and Planning Department were merged in 2000 to form the Community Planning and Development Department.
- The Animal Control division of the Police Department was abolished in 1992. Responsibility for animal control services was transferred to the Oakland County Animal Welfare Division.

The increase in the total number of Township employees does not provide a complete picture of effective and adequate staffing. Another means of analyzing the Township staffing levels is determining the number of employees per thousand residents. Figure N-3 shows the staffing service level during the past 23 years. During that time frame, the Township staffing service level improved from 2.3 employees per thousand population to 5.26 in 2003. Figure N-4 provides the staffing service levels during the same time period for each Township service classification. Each classification's service level has improved during the past 23 years, notably for police and fire. However, while the improvement in the police and fire service levels are notable when compared with Waterford's historic record, the service levels are still below the average service level standard for comparably-sized communities[1]. For instance, while the Waterford police staff service level for both civilian and uniformed employees is 1.6, the average for communities with a population between 50,000 and 99,999 is 2.2. The Waterford fire staff service level is 0.94, while the average for communities with a population between 50,000 and 99,999 is 1.25 for career firefighters. Another example revealing that Waterford's staffing service level has improved during the past 23 years but is not excessive can be found in library services. While the staff service level for the library has improved from 0.07 in 1970 to 0.27 in 2003, the accepted standard for comparable size communities is 0.5 staff persons per 1,000 population.

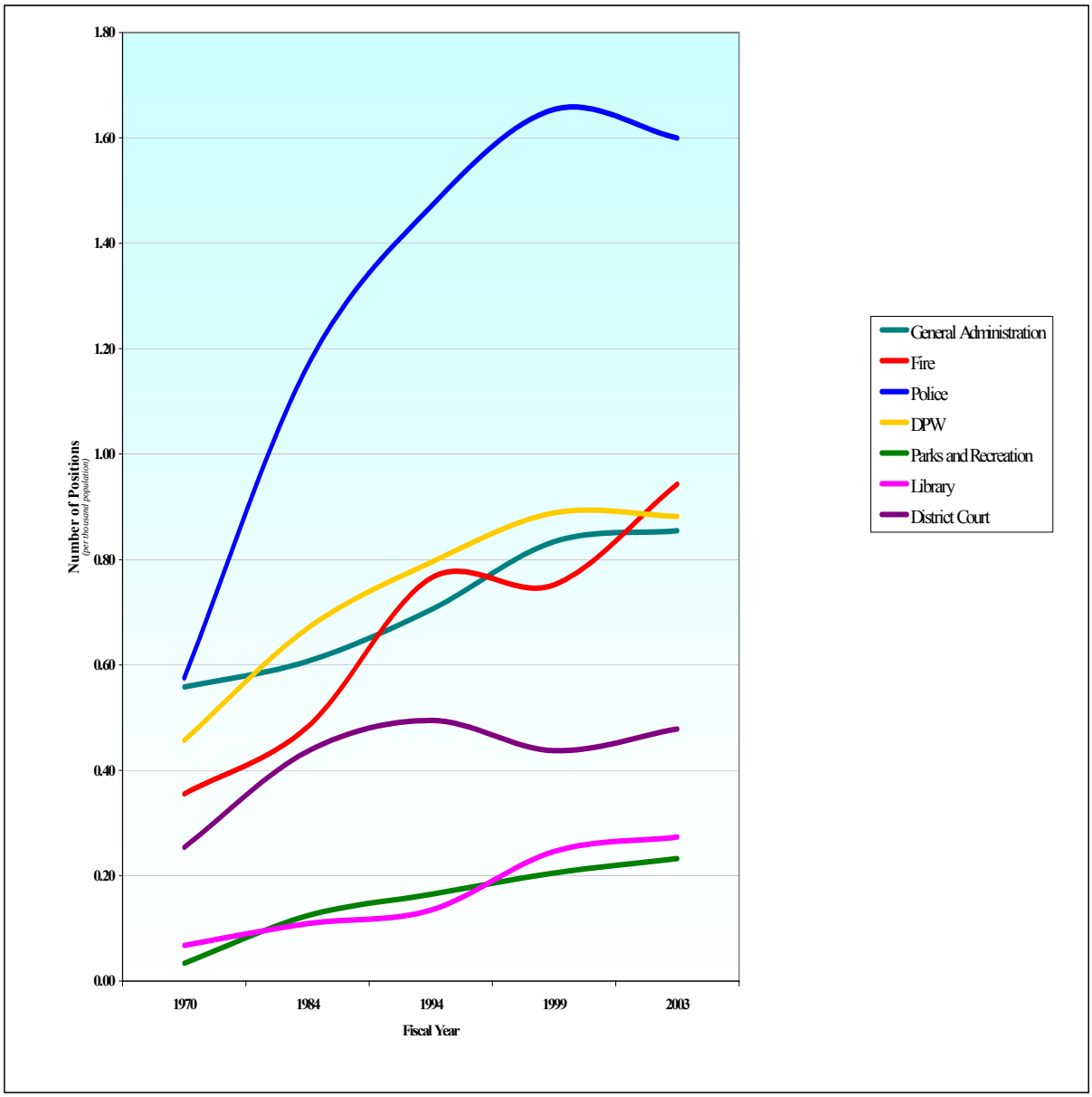
Figure N-3
Number of Township Employee Positions
Per Thousand Population – 1970-2003



Source: Waterford Township Fiscal and Human Resources Department

[1]Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards by David N. Ammons SAGE Publications, Inc. Thousand Oaks, CA 1996

Figure N-4
Number of Township Employee Positions
Per Thousand Population, by Service Classification – 1970-2003



Source: Waterford Township Fiscal and Human Resources Department

GENERAL TOWNSHIP SERVICES AND FACILITIES

The development of a civic center as an important community focal point is an accepted planning concept. The location of a civic center in an area easily accessible to its citizens strengthens its viability and brings public awareness and recognition as a community gathering place. The presence of a civic center is especially important to establishing a sense of identity or place for those communities without a downtown area.

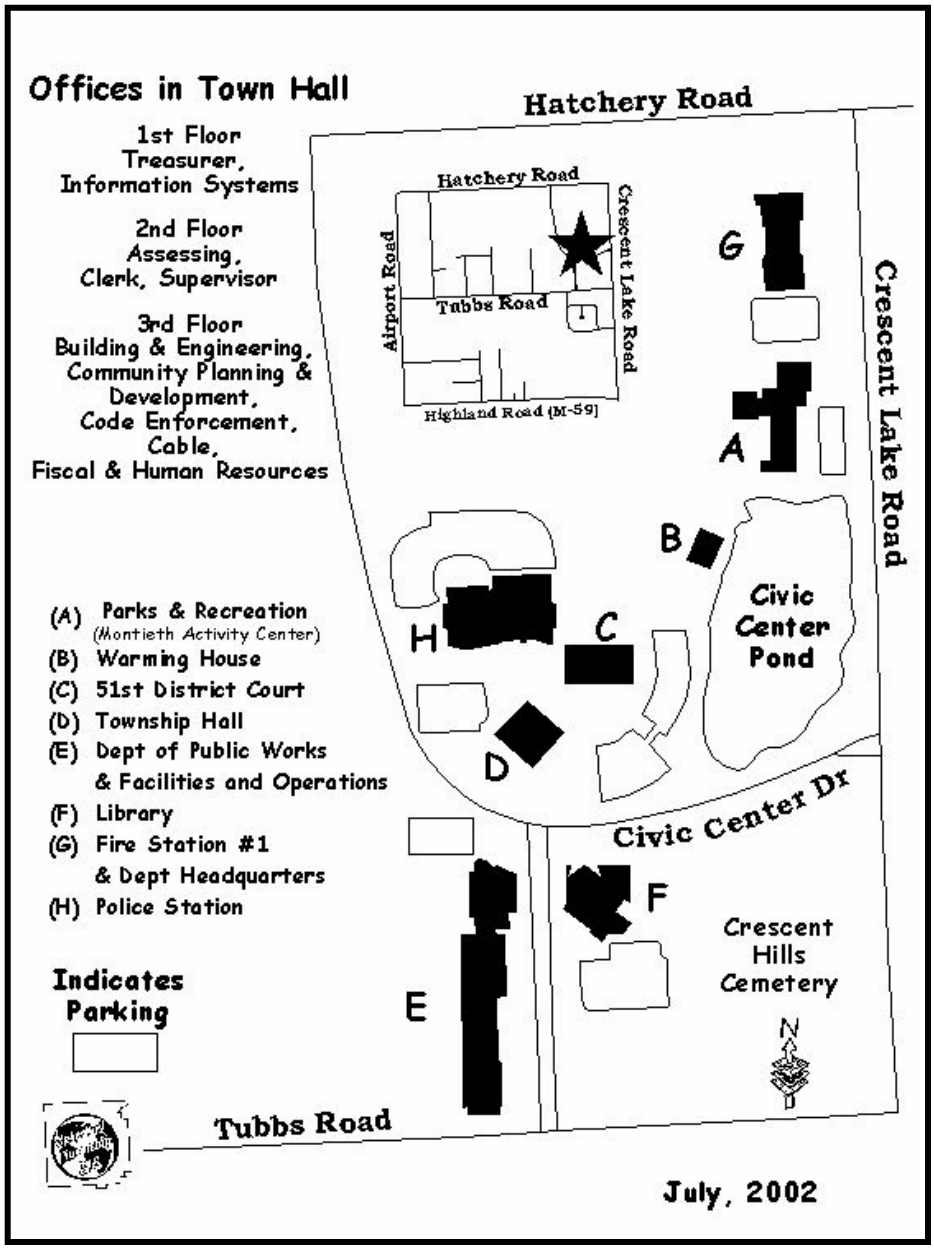
The benefit of a civic center can be both functional and aesthetic. The diversity of governmental services and functions generally requires several public buildings and facilities for effective service delivery. The proper location, size and improvements of such facilities are essential for the effective administration and service and depend upon both an understanding of the various governmental functions and subsequent maintenance programs to meet their needs. By grouping essential services, such as administrative offices, police, fire, and public works along with quality of life services such as parks, recreation, and the library, Township citizens are afforded the convenience of a multiple use location. If properly designed, it will add to the economic vitality of the community because people are placed within easy access of some of their daily and weekly activities. It also decreases the time and distance residents must travel to complete their governmental business trips. In addition, the close proximity of the primary Township buildings and facilities provides for more effective and efficient maintenance and oversight than if the buildings were located throughout the community.

Waterford Township's Civic Center site, shown in Map N-1, accommodates a number of Township functions and buildings, including Township Hall, the Police Department Headquarters, Fire Station #1 and Fire Department Headquarters, the Department of Public Works Building, the Main Library, the 51st District Court, the Parks and Recreation Building, the Warming House overlooking the Civic Center pond, the Crescent Hills Cemetery, soccer fields, and public parking. These uses are concentrated in a Civic Center setting of approximately 76 acres near the center of the Township.

The three-story Township Hall contains nearly 43,000 square feet of gross floor area and houses the basic administrative functions of the Township. Built in 1979, there is still reasonable room within the building to house additional staff without costly modifications or additions. The use of contemporary modular office units over the years has maintained the capacity for effectively accommodating increased staffing levels. Future expansion of the building does not appear necessary. The Township Hall building also contains an auditorium that serves as the main meeting room for the Township Board, Planning Commission, and Zoning Board of Appeals. There are also four conference rooms for business meetings. There is still a need for additional space for long term storage of official records and documents. The shortage of storage space in Township Hall requires the Township to begin off-site storage of its historical documents. Consideration might be given in the future to retrofitting excess space for document storage facilities in one of the other buildings on the Civic Center campus. One alternative that might be considered, if Township citizens support the construction of a new community recreation center, is to retrofit a portion of the building currently being used as the Parks and Recreation Department Headquarters. Additionally, some of the pressure that has grown over the years for document storage space might subside significantly as the Township moves full-time into electronic document storage, provided that State of Michigan document retention requirements are amended to provide for electronic document storage in place of hard copy storage.

Map N-1

Civic Center Campus



In addition to the buildings and facilities on the Civic Center campus, Waterford also provides library and recreation services at the CAI building, located in an industrial-zoned area on Williams Lake Road, between Airport Road and Dixie Highway. The CAI building is over 55 years old and is in need of numerous repairs and maintenance updates. If the Master Plan goal to construct and operate a new community recreation center is achieved, the services provided in this building could be transferred to the new building and the existing property sold. The Township sponsors a Community Resource Center at the Summit Place Mall. Located by the Telegraph Road mall entrance, the Waterford Community Resource Center is a user-friendly facility which aims to provide Waterford citizens with a variety of information about government activities and community functions. Numerous brochures from local, county, state and federal levels of government are available, as well as information from various community organizations. Additional Township facilities and buildings, such as parks, satellite libraries, fire stations, and water and sewer facilities, are located throughout the Township and are described in the following sections dealing with parks and recreation, library, fire, and water and sewer services.

51ST DISTRICT COURT

The 51st District Court occupies a building on the Civic Center campus that contains approximately 17,200 square feet of gross floor area. The building was constructed in 1988 and appears to be able to accommodate the Court's future needs. If, in the future, this situation changes and the Court requires additional space, there is enough land adjacent to the existing building to construct a small expansion. Since the building is currently one-story, consideration could be given to adding additional stories. However, this alternative would require extensive engineering study, involve a costly reconstruction process, and necessitate the temporary relocation of the Court operations.

OAKLAND COUNTY GOVERNMENT

The seat of the Oakland County government, known as the Oakland County Service Center, is located on an expanse of property along Telegraph Road. A portion of the County property is located in Pontiac and another portion, approximately 319 acres, is located in Waterford. The majority of Oakland County Government offices and facilities are located within the Service Center. The primary office buildings, such as the County Courthouse, County Jail, and Executive Office Buildings, are situated on the Pontiac side of the Service Center. The Waterford side holds several secondary office buildings, the Children's Village juvenile detention center, Road Commission for Oakland County service offices, and Waterford Oaks Park.

Sharing the location of the Oakland County Government Service Center provides several benefits to Waterford Township. Some of the primary advantages are employment opportunities, proximity for close intergovernmental and resident-government interaction, the Service Center's contribution of aesthetic quality to the surrounding area, and its potential for generating redevelopment opportunities in nearby areas.

POST OFFICE

The United States Postal Service operates two retail post office facilities in Waterford, one in a strip retail center on Dixie Highway near Midland, and the other in a new building on Cooley Lake Road near the Highland Lakes campus of Oakland Community College. Both facilities are less than ten years old. In addition, the Postal Service operates a maintenance facility on Elizabeth Lake Road and leases and operates a postal collection and distribution center, located on M-59, west of Crescent Lake Road, for the lakes area communities. The Postal Service acquired nearly eight acres adjacent to the leased property to construct a modern collection and distribution center, anticipating continued population growth in Waterford and the surrounding lakes area communities.

POLICE SERVICES

The Waterford Township Police Department was established in 1953. Fifty years later, the members of Waterford's Police Department continue to preserve and protect the citizens of Waterford. The Township police force is currently staffed by 90 sworn officers and 26 support staff. In addition to patrol duties, Waterford officers staff several specialized units including a Special Response Team, Motor Unit, Honor Guard, and K9 Unit. The typical patrol structure is to provide 24-hour patrol. Officers typically work 10-hour shifts, four days a week. Additionally, the Oakland County Sheriff and Waterford Police Department have signed a mutual aid agreement for the provision of supplemental emergency police protection services when requested by the Township. The mission of the Waterford Township Police Department is to:

- Preserve the safety of the public, promote orderly flow of traffic, investigate reported acts of criminal activity, provide services in addition to the enforcement of laws, and protect the rights of all people.
- The Waterford Township Police Department's mission includes participating with other governmental entities and other agencies of Waterford Township to further the betterment of the community.
- The Waterford Township Police Department exists to support and maintain the quality of life in Waterford, and acts to develop a sense of security and well being in the residents, businesses, and visitors.

The Waterford Police Department is located in a new facility opened in 2001 on the Civic Center Campus. The facility is state-of-the-art and fully equipped to handle current law enforcement needs as well as anticipated needs through the next 20 years. The building includes a firearms practice area, jail holding cells, network-ready training area, a physical training area, crime scene investigation facilities, and an evidence storage area. The building also houses a unified dispatching center that serves both the Police and Fire Departments. It is not anticipated that the new Police Department Headquarters building will require expansion during the next 20 years since extensive planning for future needs was incorporated into the construction of the new building.

In addition to the main building, police officers have two substation/community policing locations at their disposal. One of the substation areas is located in the Community Resource Center at the Summit Place Mall and the other substation area is located at the Oakland County International Airport. These two locations are generally unmanned and are used on an as-needed basis.

The Police Department projects, as shown in Table N-3, that the number of assistance calls will increase from 1 to 2% per year, reflecting projected population increases. In approximately 10 to 15 years, the number of annual assistance calls is projected to plateau in tandem with Waterford reaching its maximum population.

Table N-3: Annual Number of Police Department Assistance Calls – 1992-2002

Year	Number of Calls
1992	41,110
1993	42,735
1994	45,558
1995	51,809
1996	51,383
1997	48,341
1998	46,125
1999	50,014
2000	49,317
2001	48,725
2002	39,989

Source: Waterford Township Police Department

Anticipated staffing needs are outlined in Table N-4. As previously explained, the average staffing level for civilian police department employees per 1,000 population for a community of Waterford's size is 0.5. The comparable standard for uniformed personnel is 1.7. The Police Department projected future staffing levels reflect a consistent level of service during the next 20 years, while continuing to remain below the average staffing levels for comparable size communities. In order to achieve the Master Goal of maintain the existing level of police services, staffing levels should remain within the range indicated in Table N-4 for the population as projected.

Table N-4: Projected Police Department Staff Levels – 2003-2020

	2003 *(Actual)*	**2005** *(Projected)*	**2010** *(Projected)*	**2020** *(Projected)*
Total Population	73,150	74,500	76,576	79,848
Total Sworn Officer Staff	90	100	100	100
Sworn Officer Staffing Level *(per thousand population)*	1.23	1.34	1.30	1.25
National Average Staffing Level *(for communities with 50,000 to 99,999 population)*	1.7	1.7	1.7	1.7
Total Estimated Sworn Officer Staff *(based on national average staffing level)*	124	127	130	136
Proposed Sworn Officer Staffing Level Range	90-124	100-127	100-130	100-136
Total Civilian Staff	26	26	31	31
Civilian Staffing Level *(per thousand population)*	0.35	0.35	0.40	0.39
National Average Staffing Level *(for communities with 50,000 to 99,999 population)*	0.5	0.5	0.5	0.5
Total Estimated Civilian Staff *(based on national average staffing level)*	37	37	38	40
Proposed Civilian Staffing Level Range	26-37	26-37	31-38	31-40

Source: Waterford Township Police Department, David N. Ammons, Municipal Benchmarks, SAGE 1996

FIRE AND EMERGENCY MEDICAL SERVICES

The Waterford Township Fire Department was formed in 1941. As of the beginning of 2003, fire protection and emergency medical services are provided by a career staff headed by a full-time Fire Chief, Deputy Chief, and 64 employees. An auxiliary volunteer group is available to provide supplemental assistance to the career force. There are five fire stations positioned throughout the Township. Each station has been strategically located to provide effective service coverage of the entire Township in the shortest possible response time. Two stations have staffed paramedics and advanced life support vehicles. In 2002, Township residents approved a 0.63 special millage to fund expansion of paramedic services to a third station. The mission of the Waterford Fire Department is to protect the lives and property of the residents and visitors of Waterford through:

- Public education in fire safety and hazard recognition
- Aggressive fire suppression and rescue
- Professional emergency medical treatment of the sick and injured
- Efficient pre-incident planning and emergency management
- Hazardous materials control and mitigation

Station service boundary lines have been drawn, as shown on Map N-2, dividing the Township into five sectors based on geographic location, travel distances, and traffic conditions. When an emergency arises, trucks and personnel are dispatched from the closest fire station, ensuring the fastest possible response time. The average response time of the Waterford Fire Department is less than four minutes. The total number of annual response calls, as shown in Table N-5, is consistently near 4,500. Additionally, emergency medical rescue calls have become a major part of the department's service activity, averaging over 75% of the total calls for service during the past five years, as shown in Table N-6, and growing as a percentage of the total calls each year.

Table N-5: Annual Number of Fire Department Assistance Calls by Situation – 1997-2001

Type of Situation	Year/Number of Calls				
	1997	1998	1999	2000	2001
Situation Found Undetermined	0	1	4	0	3
Fire Explosion	249	265	227	215	180
Overpressure Rupture	10	6	5	6	7
Emergency Medical Rescue Call	3,195	3,314	3,255	3,415	3,437
Hazardous Condition	309	249	203	180	134
Service Call	237	271	248	243	232
Good Intent Call	162	217	243	235	235
False Call	220	179	188	141	142
Other Situation	9	8	6	8	7
Total Incident Count	**4,391**	**4,510**	**4,379**	**4,443**	**4,377**

Source: Waterford Township Fire Department

Table N-6: Emergency Medical Rescue Calls as a Percent of Total Annual Assistance Calls – 1997-2001

Year/Percent of Total				
1997	1998	1999	2000	2001
72.8%	73.5%	74.3%	76.9%	78.5%

Source: Waterford Township Fire Department

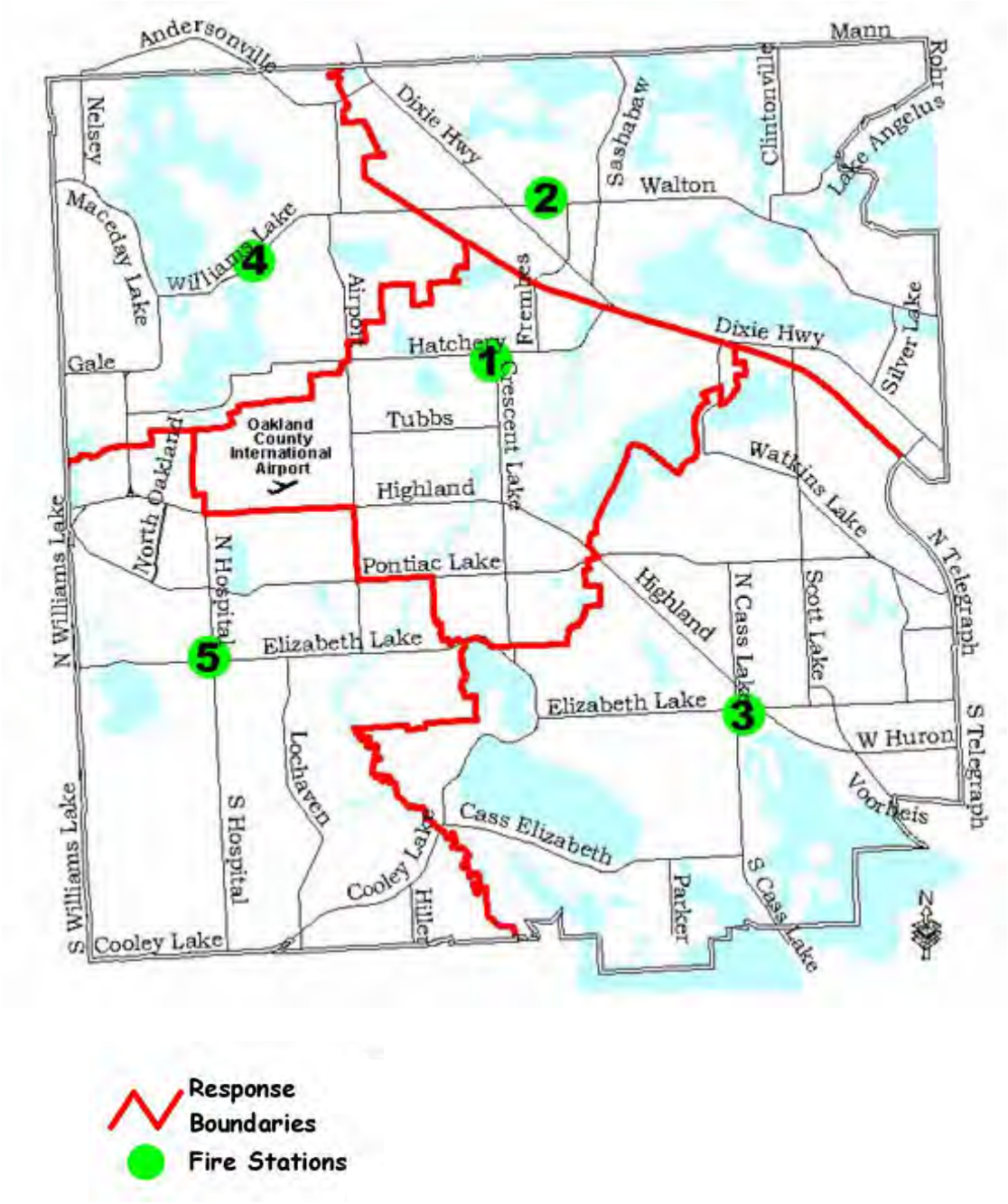
Anticipated staffing needs are outlined in Table N-7. As previously explained, the average staffing level for fire department employees per 1,000 population for a community of Waterford's size is 1.25. The Fire Department projected future staffing levels reflect a consistent level of service during the next 20 years, while continuing to remain below the average staffing levels for comparably-sized communities. In order to achieve the Master Plan Goal of maintaining the existing level of fire and emergency medical services, staffing levels should remain within the range indicated in Table N-7 for the population as projected.

Table N-7: Projected Fire Department Staff Levels – 2003-2020

	2003 *(Actual)*	**2005** *(Projected)*	**2010** *(Projected)*	**2020** *(Projected)*
Total Population	73,150	74,500	76,576	79,848
Total Fire Department Staff	66	67	69	72
Fire Department Staffing Level *(per thousand population)*	0.90	0.90	0.90	0.90
National Average Career Firefighter Staffing Level *(for communities with 50,000 to 99,999 population)*	1.25	1.25	1.25	1.25
Total Estimated Career Firefighter Staff *(based on national average staffing level)*	91	93	96	100
Proposed Career Firefighter Staffing Level Range	66-91	67-93	69-96	72-100

Source: Waterford Township Fire Department, Community Planning and Development Department, David N. Ammons, Municipal Benchmarks, SAGE 1996

Map N-2 Fire Station Locations and Service Area Boundaries



The Township is currently served by the five fire station buildings which are described in Table N-8. The national average number of fire stations per 1,000 population for a community the size of Waterford is 0.075. At the current population of 73,150, this would indicate a need for 5.48 stations. Therefore, the Township is stretching the limits of the average level of service with its five current stations. However, if the population increases during the next 20 years to 79,848, as projected, the Township may need to consider constructing a sixth fire station to maintain current service levels and response times. There is an immediate need to replace the Station 2 building with a modern facility since it is over 50 years old. The other station buildings are in relatively good shape and could continue to serve Waterford during the next twenty years without being replaced.

Table N-8: Inventory of Fire Station Buildings

Station Locations	Year Built	Description
Headquarters and Station 1 2495 Crescent Lake Rd.	2000	Station 1 serves as the headquarters for Township fire and emergency medical services and is responsible for protecting the central sector of the Township. The building contains administrative office space, state-of-the-art training facilities, conference rooms, equipment repair facilities, a computer technology center, living quarters for Station 1, and fire apparatus bays. Houses an Engine, the Aerial Truck, an Advanced Life Support Rescue Vehicle and the Command Vehicle.
Station 2 4596 W. Walton Blvd.	1952	Station 2 is responsible for responding to calls in the Township's northeast sector and serves as the Department's vehicle repair and maintenance facility. Station 2 houses an Engine and will be home to the third Advanced Life Support Rescue.
Station 3 3435 Elizabeth Lake Rd.	1989	Station 3 is responsible for protecting the Township's southeast sector. Station 3 houses an Engine and an Advanced Life Support Rescue.
Station 4 6615 Williams Lake Rd.	1974	Station 4 is primarily responsible for protecting the Township's northwest sector and the first response unit for the Oakland-County International Airport. Station 4 houses an Engine.
Station 5 25 N. Hospital Rd	1979	Station 5 has the primary responsibility of protecting the southwest sector of the Township and is the first response unit to the Oakland Community College Highland Lakes Campus. Station 5 houses an Engine.

Source: Waterford Township Fire Department

The Township is currently served by seven pumpers, one aerial apparatus, four rescue vehicles, and one command vehicle, all of which are briefly described in Table N-9. The national average for the number of pumpers per 1,000 population for a community the size of Waterford is 0.086. At the current population of 73,150, this would indicate a need for 6.3 pumpers. Therefore, the Township achieves the national average for pumpers. The current number of pumpers should accommodate population increases to the projected 79,848 during the next 20 years. There is an immediate need to replace the Station 2 building with a modern facility since it is over 50 years old. The national average for the number of aerial apparatus per 1,000 population for a community the size of Waterford is 0.022. At the current population of 73,150, this would indicate a need for 1.6 aerial apparatus. Although the Township is below the national average for aerial apparatus, there are few buildings greater than two stories in height. The current number of buildings in excess of two stories is not anticipated to increase during the next 20 years. The aerial apparatus is also an important tool in providing elevated water streams on two-story buildings and large-footprint

commercial buildings. Therefore, the current aerial apparatus could accommodate population increases to the projected 79,848 during the next 20 years. However, if during the next 20 years the number of buildings with heights exceeding two stories increases, the number of large-footprint commercial buildings increases, or if the aging of the Township's building stock results in an increase of fires requiring additional aerial apparatus support, the Township may want to consider adding an additional aerial apparatus in order to meet the national average.

Table N-9: Inventory of Fire Department Vehicles

Vehicle Name	Vehicle Description
Engine 201	Engine 201 is a 1990 Sutphen Class A pumper with a 1,250 gallon-per-minute Hale pump. It has an on-board 500 gallon water tank and carries 1,000 feet of 4" supply hose, 700 feet of 2-1/2" supply hose, a 150 foot 2-1/2" pre-connected attack line, and two 200 foot 1-3/4" pre-connected cross-lay attack lines. It also has a 3" surface mounted deck gun capable of delivering the full 1,250 gallons per minute of water. All engines carry "foam" and have the capability of delivering it. All engines carry cardiac defibrillators.
Engines 203 & 204	Engines 203 and 204 are identical 1995 Sutphen fully enclosed cab Class A pumpers with 1,250 gallon-per-minute Hale pumps. They both have on-board 500 gallon water tanks and carry 1,000 feet of 4" supply hose, 700 feet of 2-1/2" supply hose, a 150 foot 2-1/2" pre-connected attack line, and two 200 foot 1-¾" pre-connected cross-lay attack lines. They also have 3" surface mounted deck guns capable of delivering the full 1,250 gallons per minute of water. All engines carry "foam" and have the capability of delivering it. All engines carry cardiac defibrillators.
Engines 205, 206 and 207	Engines 205, 206 and 207 are models 2000 (Engine 205) and 2001 (Engines 206 and 207) Pierce Dash Class A Pumpers. Each is capable of delivering 1,500 gallons-per-minute from a Hale single stage pump. They all have an on-board 500 gallon water tank and carry 2,000 feet of 4" supply hose and 700 feet of 2-1/2" supply hose. Each engine is capable of delivering its capacity through several pre-connected attack lines; one 150 foot 2-1/2" line, two 200 foot 1-3/4" lines and one 100 foot 1 3/4" car fire line. Each engine also has a removable deck gun (monitor) able to flow up to 1,250 gallons-per-minute. Each engine has 3,000 gallon folding water tanks, hard suction (drafting), and miscellaneous drafting accessories. Engine 206 has a 500 gpm Hale portable pump with hard suction. All engines carry "foam" and have the capability of delivering it. All engines carry cardiac defibrillators.
Tower 1	Tower 1 is a 1991 Sutphen Aerial Platform truck with a 100-foot ladder (at 70 degrees) and a self-leveling, self-stabilizing bucket. It has a 1,500 gallon-per-minute Hale pump capable of delivering its full capacity through the two 2-1/2" nozzles mounted on either side of the bucket. The primary mission of Tower 1 is high angle rescue and deployment and its capability to deliver large amounts of water from above its target. It has played a vital role in rapidly extinguishing several large fires in large commercial buildings and apartment complexes and is frequently called upon to assist neighboring departments.
Rescue Vehicle R-98	R-98 is a 1998 Freightliner FL60/Wheeled Coach Medical Attack Vehicle (MAV) rescue currently in service as a "Special Response" unit. The equipment carried on this vehicle is for First Response Haz-Mat and Special Rescue.
Rescue Vehicles R-99, R-00, R-01, R-02 and R-03	1999, 2000, 2001, 2002, and 2003 are nearly identical Freightliner FL60/Wheeled Coach Medical Attack Vehicle (MAV), State of Michigan fully licensed, fully equipped Advance Life Support (ALS) transporting units. Some of the equipment carried on these vehicles are 'Jaws of Life', forcible entry tools, self-contained breathing apparatus (SCBA), spare air bottles, cardiac defibrillator, advanced medical equipment, emergency drugs and hand tools.
Command Vehicle	The Command Vehicle is a 2000 Ford Heavy Duty F350 Crew Cab 4-wheel drive truck with a PowerStroke Diesel and a custom designed box. It serves as the command officer's vehicle and carries additional equipment and supplies including extra oxygen bottles and air cylinders, a high velocity gasoline powered exhaust fan, a power winch, a generator, extra chain saws, specialized forcible entry tools, tactical nozzles, extra medical supplies, maps, floorplans and extra portable radios. During an incident, it functions as the mobile command post and houses technical and tactical reference materials required by the Incident Commander.

Source: Waterford Township Fire Department

PUBLIC WORKS

At the current time, central municipal water and/or sewer service is available to nearly every area within the Township. These services are provided by 64 full time employees of the Waterford Township Department of Public Works (DPW). The DPW is comprised of the Water and Sewer Division and the Facilities and Operations Division and has an annual budget of approximately $15,000,000.

The DPW is located in a new building constructed during 2001 and 2002, to replace two aging buildings, one that housed the Water & Sewer offices, and the other one housed the Facilities & Operations offices. The new building is a state-of-the-art full-service facility that provides a modern work environment in which DPW employees can better serve Waterford citizens for several decades. The new DPW facility was designed to be expandable in the areas of both working space and technological capability. The new complex houses all of the DPW operations (both Water/Sewer and Facilities/Operations) under one roof. The service area of the new building contains a modern automotive maintenance garage where all of the Township's vehicles and equipment are serviced and maintained. The office area is where Township residents are assisted with utility connections, maintenance and billing issues.

The DPW has implemented several technological systems in order to provide services safely, efficiently, and effectively to Township residents. Among these systems are a Supervisory Control and Data Acquisition (SCADA) system, a Computer Maintenance Management system(CMMS), a hydraulic water and sewer modeling system, as well as the Township's Geographic Information System (GIS), and Document Management system. The SCADA has been fully implemented through the incorporation of sophisticated computers and communication to enable real-time monitoring and control of all Township water plants, tanks, and sewer pumping stations. The SCADA allows DPW staff to receive alarms via computer, pager, and cell phone whenever conditions vary from the normal standards for the Township water and sewer systems. The SCADA also provides critical operational performance data on a continuous basis. The CMMS is an electronic work order system used to schedule and initiate work to be performed as well as track costs such as labor, material, and equipment. It is also used to maintain proper equipment and supply inventories. The hydraulic water and sewer modeling system is a mathematical and graphical representation of the entire water and sewer system in the Township and is used to predict system responses and problems under an infinite number of scenarios. It is also used to properly size new infrastructure and to evaluate the impact of new development to ensure that water availability and control presents no constraint on the utilization of land in the Township. The Township GIS is used for cemetery management and viewing documents, flow monitoring, and physical asset information in relation to its geographic location. The DPW also possesses television monitoring capabilities to monitor the internal condition of its sewer main infrastructure.

Sewer Collection System

The Department provides for the safe and efficient collection and transport of all wastewater from properties connected to the sewer system through approximately 360 miles of sanitary sewer line and 63 sewer pumping stations. The Township's sewer infrastructure includes 8,000 manholes and 24,500 sewer service connections. Sewer service is provided to residential and commercial projects developed in the Township. Wastewater is discharged through the Clinton Oakland Interceptor, operated and maintained by the Oakland County Drain Commissioner's Office, to the Detroit wastewater disposal system, while Waterford maintains the system within its borders. The discharge capacity of the Waterford system is 37.46 cubic feet per second (cfs). The current average discharge is approximately 13 cfs.

Currently, issues that are being dealt with regarding the sewer system range from capital improvement projects to upgrade sewer pumping stations and improve capacity by reducing infiltration/inflow and sewer main rehabilitation. New connections and sewer expansions are financed through the Water and Sewer Enterprise Fund, while private development pays for the cost of new infrastructure required for servicing proposed development. There is a minimal record of MDEQ violations; in the last five years, there has been only one reported violation. Additionally, businesses in Waterford have been good stewards of the environment since there have been no cases of suspected illegal dumping in recent years. The Township does work actively to enforce the environmental quality of its water and sewer systems and will do what it takes to eliminate violations of Township requirements, such as when an oil recovery business on Williams Drive was closed due to illegal dumping into the sanitary system and numerous fire code violations.

Water Distribution System

The Water Department provides high quality, potable water for residential, commercial, and industrial uses, as well as for Township-wide fire protection. The water system's peak delivery capability is approximately 21.3 million gallons per day (MGD). The overall capacity of the water system is 24.8 MGD. The water system is maintained by the Waterford Township Department of Public Works and is classified as an Integrated Municipal Water System.

Waterford Township's water supply is obtained from 15 wells located at 12 different locations throughout the Township. Ten of the well sites contain a Water Treatment Plant that perform a variety of treatment processes including iron and manganese removal. Additional chemicals are also added to disinfect the water and to control other contaminants such as lead and copper. Water storage is provided by two elevated storage tanks (respectively 0.75 and 1.0 million gallon capacity) and one ground storage tank (6.0 million gallon capacity). The Township's water infrastructure includes 3,600 water valves and 24,000 water service connections.

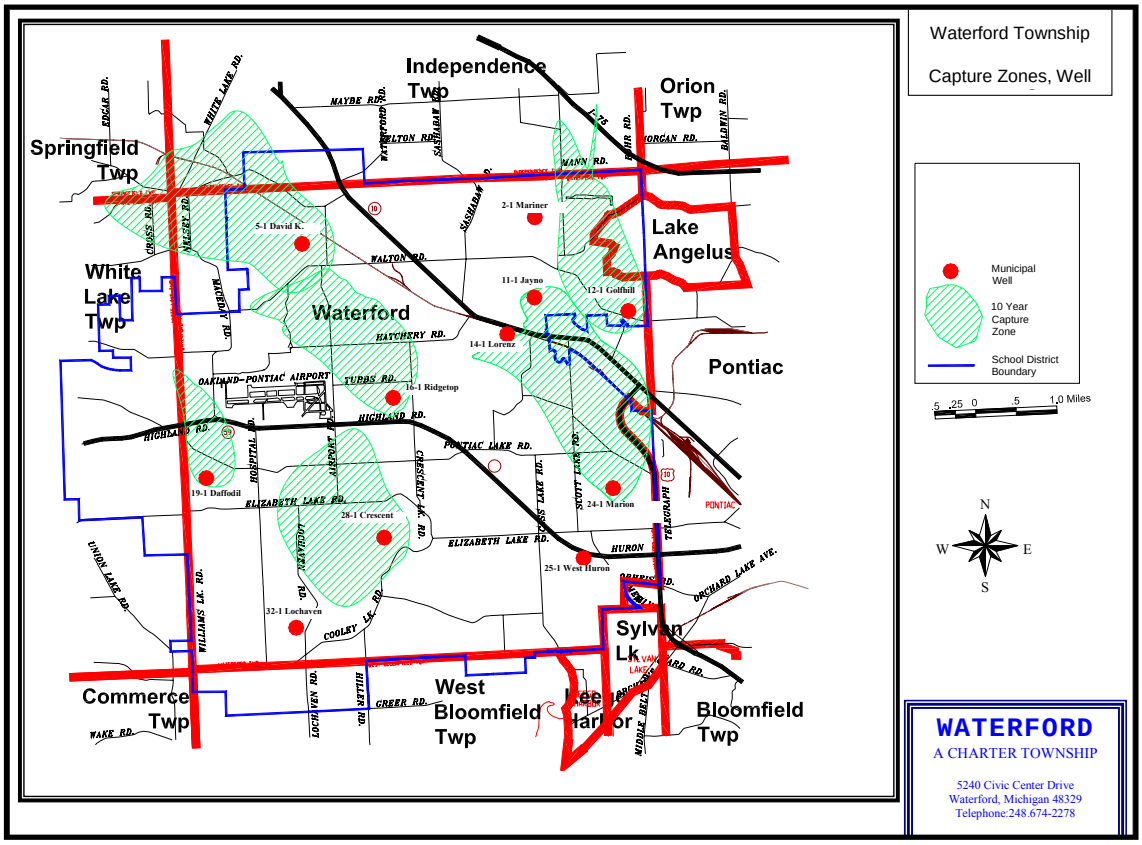
The Environmental Protection Agency (EPA) and the Michigan Department of Environmental Quality (MDEQ) require all municipalities to report the quality of drinking water. The monitored categories are Copper, Lead, Arsenic, Coliform, Barium, Selenium, Nitrate, Chloride, Fluoride and Trihalomethanes, to determine if the Maximum Contaminant Level (MCL) level is exceeded. If a particular MCL, or Action Level (AL), is exceeded, additional treatment or other action may be required. Waterford Township's water quality is exceptional, and complies with all parameters monitored by the MDEQ.

Current issues being addressed regarding the distribution system and treatment processes include capital projects to increase the firm pumping and treatment capacity to at least 26 MGD to provide redundancy in case mechanical or other problems take a well and/or treatment facility off-line. Other capital projects include the replacement of 4-inch water main with 8-inch ductile iron water main and the replacement of cast iron water main with ductile iron water main.

Waterford Township DPW currently has 10 MDEQ approved Well Head Protection Areas (WHPA), which are shown on Map N-3. These areas define the boundaries of the 10-year zone of capture for a specific wellhead. The Wellhead Protection areas are identical to the 10-year Capture Zones. If there were a contaminant released at the edge of the boundary, it would take approximately 10 years for it to reach the wellhead, if untreated. As a result of the WHPAs, if contamination is discovered, an action plan can be developed to resolve the problem before the wellhead becomes contaminated. The Township also currently has a Michigan Department of Environmental Quality (MDEQ) approved Well Head Protection Plan (WHPP). Approved WHPAs for Waterford Township are listed as follows:

Lotus Lake
Lorena Street
Pleasant Lake
Jayno Heights
Vista Villa
Donelson Park
Crescent Lake
Marion Street
Lake Oakland
Silver Lake

Map N-3 Capture Zones and Well Locations



Fire Suppression

As part of the DPW's continued efforts to safely serve the public, they have initiated a program of color-coding the Township's 3,400 fire hydrants to correlate with the water main size serving the hydrant. In an emergency, this allows the Fire Department to know immediately what size water main will be supplying the fire fighting efforts. Knowing the water main sizes will help them connect their hoses on the largest main available to increase water flow for firefighting. Table N-10 identifies the size of the water main according to the associated fire hydrant color.

Table N-10: Hydrant Color Codes for Water Main Service Size

Fire Hydrant Color	Water Main Size
Red	6"
Orange	8"
Blue	10 to 12"
Yellow	16" to 20"
Green	24" to 36"

Source: Waterford Township Department of Public Works

Facilities and Operations

The DPW's Facilities and Operations Division (F & O) works in the background of the Township operation to ensure that all buildings and equipment are maintained in working order so that services to Township citizens continue uniterrupted. Among its responsibilities, F & O staff provide general maintenance for 281,600 square feet, or 6.5 acres, of Township building floor space, as well as 4.1 acres of Township grounds. Over 200 vehicles are serviced and maintained. The Township's 41 miles of bike path are also maintained by F & O staff. The F & O staff maintains the 51 acres contained within the five Township cemeteries list in Table N-11 as well as the one mile of cemetery road. In addition, F & O is responsible for all cemetery interments in the Township cemeteries.

As part of an overall enhancement of services F&O has begun implementing a computerized maintenance management and data base program which will cover all township buildings, grounds, vehicles, equipment and cemeteries operations under their charge.

Table N-11: Cemetery Locations and Availability

Cemetery Name	Location	New Plots Available?
Crescent Hills	Civic Center Drive	Yes
Waterford Center	Corner of Airport Road and Pontiac Lake Road	Yes
Four Towns	Cooley Lake Road near Lochaven	No
Drayton Plains	Dixie Highway and Williams Lake Road	Yes
Waterford Village	Clippert off of Dixie Highway	No

Source: Waterford Township Department of Public Works

PUBLIC UTILITIES

Electric Service

The Township's electricity needs are provided by DTE Energy.

Natural Gas

Consumers Energy operates and maintains natural gas lines within Waterford Township and offers natural gas service.

Telephone

SBC provide basic land-based telephone service to Township residents. Fiber optic and high speed Digital Service Link are available through a variety of vendors.

Cable

Comcast possesses a frachise to provide cable service to Township residents.

STORMWATER MANAGEMENT

Waterford Township does not currently monitor, control, maintain or build any drains for the management of stormwater. Under Michigan State law, the Drain Code, Act 40 of 1956 as amended, gives the County Drain Commissioner the powers and responsibilities for managing stormwater within Oakland County. The County Drain Commissioner also has additional statutory

responsibilities regarding soil and sedimentation control, along with other responsibilities delegated by the Oakland County Board of Commissioners. The Drain Commissioner cannot establish drains unless petitioned by residents or the municipality; it may not enclose drains unless petitioned; and it may not recommend new drains. The Township provided the initative in working towards the establishment of new drains by the Drain Commissioner for the community. The Oakland County Drain Commissioner established and continues to maintain approximately 20 miles of storm drain within Waterford Township as shown in Table N-12. Of this total, about 53 percent are enclosed drains with the remainder of the total being open drains. Enclosed drains are generally located in areas of relatively dense population, with open drains in the remaining areas. Table N-12 also reviews the level of design capacity for each of the established County drains. In addition to the drains under the jurisdiction of the Drain Commissioner, the Road Commission for Oakland County (RCOC) has responsibility for controlling storm water runoff from public rights-of-way. Most of the RCOC's storm drain system is open ditching.

Waterford Township lies within the Clinton River watershed; therefore all surface water eventually works its way to the Clinton River. The majority of storm drains within the Township empty into the 34 lakes and Clinton River, the primary components of the watershed in the Township. Waterford Township requires on-site retention/detention for all subdivisions, sites and new development. Retention/detention is required to limit site runoff to pre-development quantity. Waterford Township has certain floodplain areas as shown on the Federal Emergency Management Agency (FEMA) floodplain maps. These areas generally follow the wetland areas near the lakes and the Clinton River.

In order to improve efforts to enforce water quality, the U.S. Environmental Protection Agency (USEPA) has issued the Phase II Storm Water Rule, which requires urbanized municipalities that operate a separate storm water drainage system to obtain a storm water permit by March 10, 2003. This permit program affects over 170 communities in Southeast Michigan, including Waterford Township. The program is administered by the Michigan Department of Environmental Quality (MDEQ), and is being coordinated by the Southeast Michigan Council of Governments (SEMCOG). The Township has been an active participant, along with some of its neighboring communities that lay within the same Clinton River subwatershed, in preparing all of the documents necessary to apply for its storm water permit. The Township anticipates submitting its permit application before the deadline and working to implement the components of the permit once approved by USEPA.

As Waterford continues beyond its development phase and into its redevelopment phase, active maintenance of the Township's creeks and County drains will continue to be important for preventing future flooding and addressing drainage concerns. Federal Clean Water Act requirements will remain a critical component in the Township's efforts to maintain a quality environment. Waterford will continue to work on being at the forefront of efforts to maintain and enhance reasonable and effective Township ordinances and policies that promote and enforce stormwater management, wetland protection, and regulation of lowland filling. Continued rigorous review and evaluation of stormwater retention and/or pre-treatment requirements to avoid the discharge of potentially harmful waters to any body of water is recommended. Discharges to wetlands should continue to be evaluated with respect to the reasonable capabilities of such areas to remove harmful substances before they adversely affect surface or underground water resources. Plans for new developments that are not in a drainage district or are in areas of drainage problems should continue to be required to provide retention/detention systems to help alleviate this problem. Because there are multiple jurisdictions responsible for stormwater management within the Township, it is recommended that a complete study of the Township drainage system be undertaken in order to monitor

drainage capacity, recommend drainage provisions for each area of the Township, and recommend improvements to current drains and the construction of new drains.

Table N-12 Inventory of Oakland County Storm Drains – Waterford Township

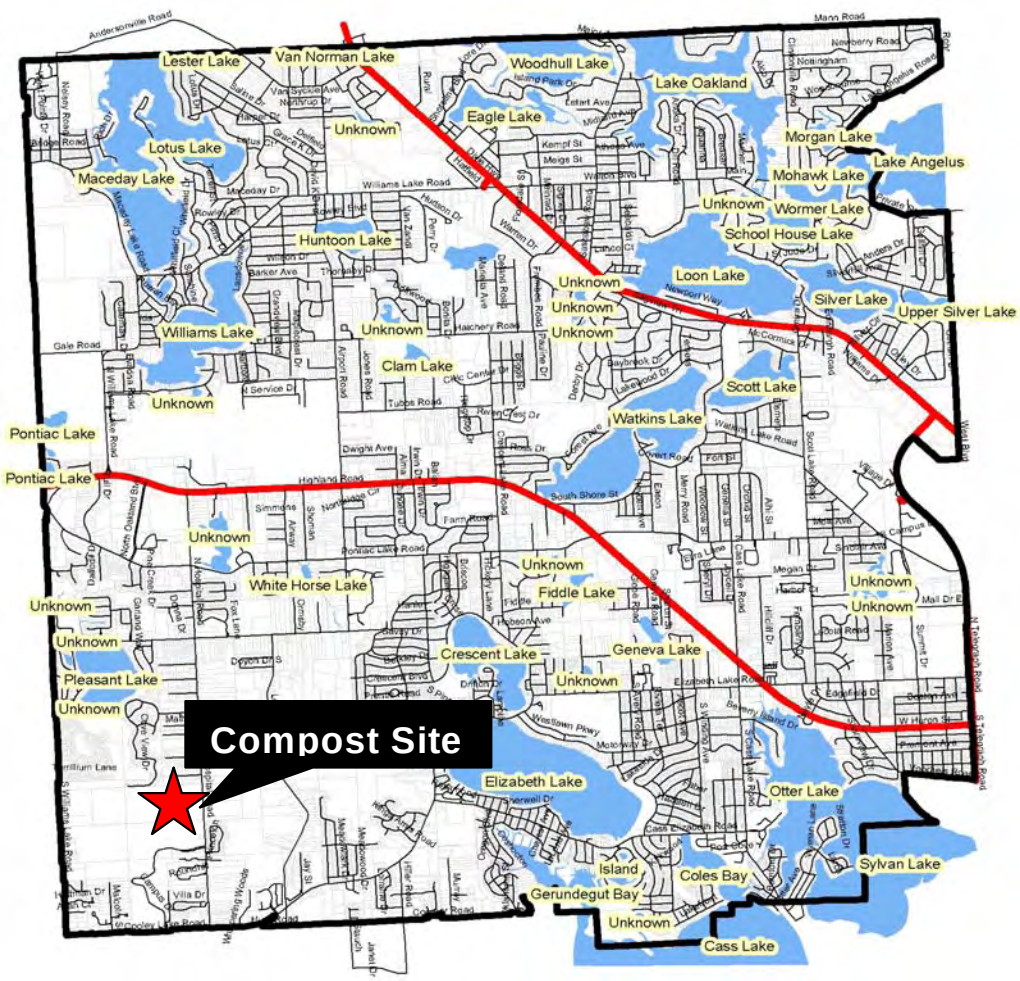
Name	Year Built	Footage In Open Drains	Footage In Enclosed Drains	Total (feet)	Comments
Birdsland	1939		5,942	5,942	Over design capacity. Outlets to private drainage system.
Drayton Plains	1924	2,190	9,538	11,728	Over design capacity north of Williams Lake Road. Road.
Drayton Plains Extension	1947		1,086	1,086	---
Four Towns	1897	8,203	---	8,203	Currently functioning near design capacity.
Lochaven	1945	15,000	---	15,000	Currently functioning near design capacity.
Lochaven Branch	----	5,400	---	5,400	Currently functioning near design capacity.
McIvor	1951	---	700	700	Currently functioning near design capacity.
Otter	1920	7,500	---	7,500	Over design capacity between Cass Lake Road and outlet.
Pontiac Creek Extension-Branch I	1948	5,400	1,990	7,390	Over design capacity west of Scott Lake Road.
Pontiac Creek Extension-Branch II	----	2,000	330	2,330	Severely over design capacity. Western most portion non-existent.
Silver Crest	1944	---	2,068	2,068	Over design capacity southwest of Dixie Highway.
Tuttle	1947	---	5,805	5,805	Currently functioning near design capacity.
West End	1923	----	8,300	8,300	Currently functioning near design capacity.
Wilmont	1970	3,610	20,010	23,620	Currently functioning adequately.
Tilden	----	-----	---	---	Adjacent to Waterford Township – Currently functioning near design capacity
TOTALS		**49,303**	**55,769**	**105,072**	

Source: Waterford Township Building and Engineering Department

SOLID WASTE COLLECTION AND RECYCLING

Waterford Township does not provide any form of Township-wide collection of solid waste; therefore, every household and business must contract separately with a private waste hauler for solid waste removal. A proposal for Township-wide solid waste removal was placed on the ballot in 1998 and was defeated by the voters. Waterford Township does currently offer recycling to Township residents. On the first and third Saturdays of each month, corrugated cardboard, magazines and paper is collected by a private recycling company in front of Township Hall. Additionally, the Township provides a fee-based compost site between April 15 and December 1 for residents to dispose of their leaves, grass clippings and small brush, or to take the resulting compost for personal use. The compost site is currently located on the west side of South Hospital Road, between Pershing and the Oakland Community College-Highland Lakes Campus, as shown on Map N-4. Besides composting and recycling, it is recommended that the Township investigate the establishment of an annual drop-off of hazardous wastes such as motor oil, household cleaners and old batteries.

Map N-4 Compost Site Location



PARKS & RECREATION

One of the crucial components of a community's quality of life is a diverse and significant inventory of well-maintained and safe parks and recreational activities. Parks contribute to the preservation of a community's open space while providing a peaceful and healthy outdoor environment for current residents and future generations. Recreational activities encompass a wide array of activities that benefit individuals both physically and mentally by freeing the mind and body from the stress and monotony of the daily work schedule. While many recreational activities can be conducted in the privacy of home and yard, others require the use of larger facilities operated by public agencies or private entities. The demand for recreational facilities will vary depending upon a community's goals and sense of identity, its physical characteristics, its demographic composition, and its social and cultural influences. The analyses contained within Appendix A - Background Studies indicates that Waterford's population is characterized by:

- A population which continues to contain a significant number of persons under the age of eighteen.
- An increasing number of persons age 65 and over. As this demographic group continues to live longer, individuals in this age group continue to demonstrate demand for an increasing variety of physical, social, cultural, and educational services each year.
- Educational and income statistics indicate a continuing diverse composition of Waterford's population, with the Township continuing as a primarily middle-class community.

These basic demographic indicators anticipate continuing future demand for a diverse variety of recreational facilities and services. The Township possesses the capacity to provide for these diverse needs through its physical features such as over 30 lakes and the Clinton River, its location in the geographic center of Oakland County, and its past recreation planning. It also benefits from a historic pattern of support from the Waterford School District, which has contributed to providing a comprehensive recreational program and access to school facilities. Such support and cooperation is critical for the continued success of Waterford's recreation facilities and programs as operating costs continue to rise and the public demands increasing efficiency in providing public facilities.

Planning for Township recreation facilities and programs is the responsibility of the Township Board, the Parks and Recreation Board, and the Planning Commission. The Township Parks and Recreation Board prepared its first comprehensive Recreation Plan in 1986, updating it in 1991, 1997, and is currently finalizing an update that was conducted in coordination with the citizen participation process that produced the Township's current Master Plan. The statistics and projections evaluated for the Township Master Plan were also integral elements in the Recreation Plan update. Utilizing basic planning data, certain modifications and adjustments are offered to assist the Recreation Board in their update activities. These suggestions and/or modifications reflect land use planning findings and proposals and require refinements to reflect specific standards and operational procedures found to be applicable by the Recreation Board. Development of the Township's parks system, the general location of the major components are shown on Map N-5, has been guided by the 1997 Recreation Plan and will be guided by the 2003 Plan once fully adopted.

Recreation has been recognized as necessary for the physical and psychological well being of the community and for its individual members. The rapid tempo of modern society has created a demand for open areas, breathing spaces, and recreation through which all ages and segments of the population can relieve the stresses of today's lifestyles and work environments. Open spaces also are valuable for their

influence on surrounding property. Parks and other well-designed open areas have been found to stabilize or increase property value. They generally improve the character of neighborhoods and are aesthetically pleasing. The maintenance of Waterford's housing stock value depends in no small part on the quality of life amenities that are offered within the community, such as the provision of ample areas of open space and recreation facilities. A community's recreation needs, both short and long-term, should be evaluated in relation to the amount of land available for recreation purposes, the types of facilities available at these sites and the range of programs and services offered to Township residents.

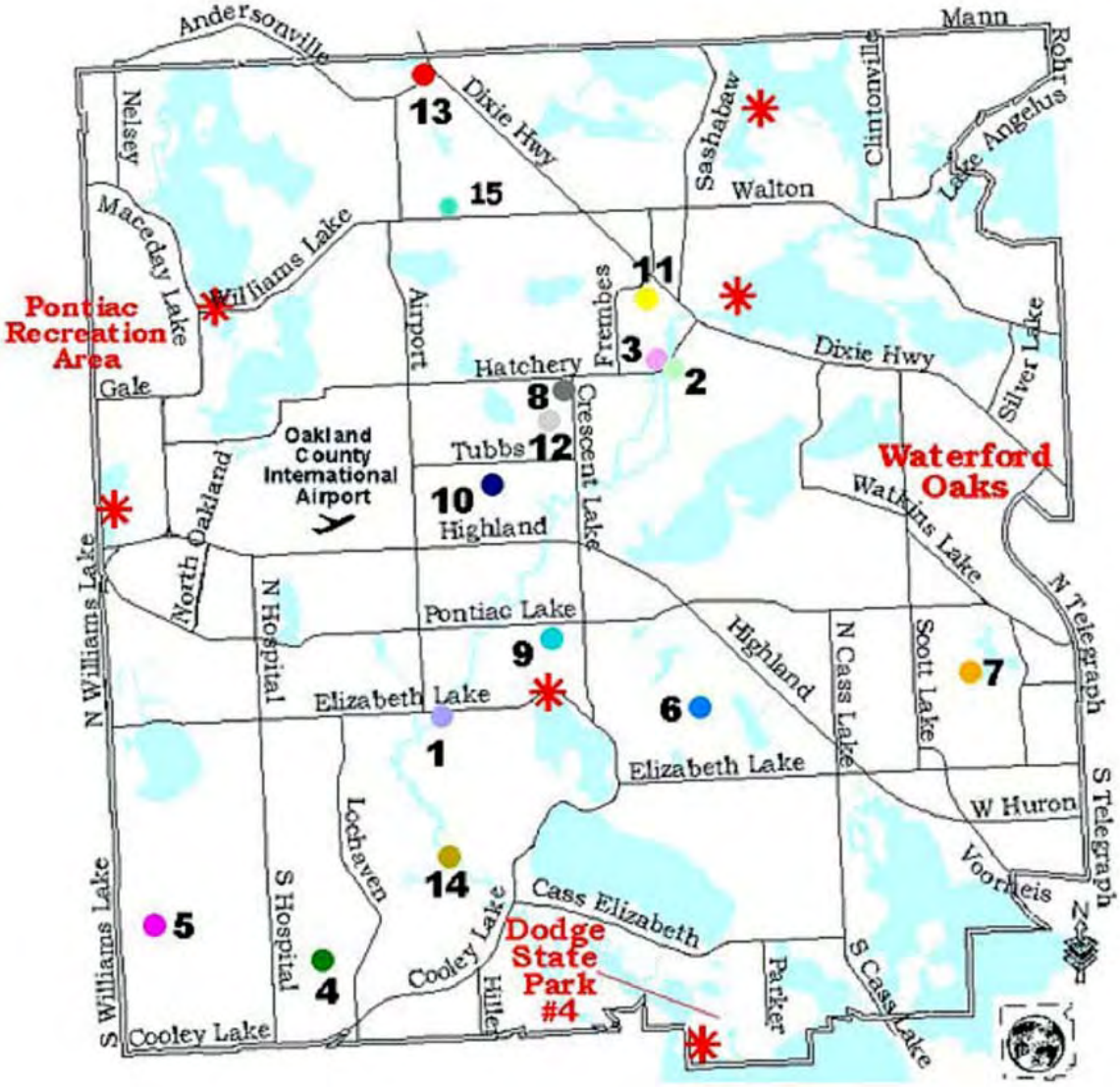
Several techniques can be used for the purpose of projecting future needs. Frequently, these techniques rely on comparisons of existing facilities to commonly accepted standards. These standards present optimum conditions as a benchmark against which progress can be measured. The risk in using these standards is that they may not be uniformly applicable to all communities and might need to be adapted to the unique physical, social, and economic conditions that may characterize a specific community. The Township has five classifications of recreation facilities: Neighborhood Parks and School-Parks, Community Parks and Sports Complexes, Regional Parks, Natural Resource Areas, and Special Use Facilities. Differing in size and purpose, each level caters to particular needs; a balanced mixture of all five types is essential for a well-rounded desirable recreation program for Waterford Township. This section analyzes the Township's recreation facilities inventory through this classification system, determining the current capacity levels for each classification, as well as project the capacity and potential needs during the next twenty years. The recreation planning standards used for this analysis is shown in Table N-13.

Table N-13 Recreation Planning Standards by Classification

Recreation Facility Classification	Acres per 1,000 persons	Ideal Acres	Service Area (Radius Miles)
Neighborhood Parks	1.0 – 2.0	5 minimum, 5-10 optimum per park	¼ to ½
School-Park *(counts toward a community's neighborhood park needs)*	1.0-2.0	Determined by location of school district property	Variable-depends on function
Community Parks	5.0 – 8.0	30-50 optimum per park	½ to 3
Sports Complex *(counts toward a community's community park needs)*	5.0 – 8.0	25 minimum, 40-80 optimum per park	Strategically located community-wide facilities
Regional Parks	5.0 – 10.0	200 per park	1 hour driving time
Natural Resource Area		varies	Depends upon availability and opportunity
Special Use		variable	Variable-dependent upon specific use

Source: Park, Recreation, Open Space and Greenway Guidelines, 1996, by James D. Mertes, Ph.D., CLP and James R. Hall, CLP

Map N-5 Major Parks and Recreation Sites - Waterford Township



1 Clinton River Canoe Site
2 Drayton Plains Nature Center
3 Fish Hatchery Park
4 Herrington Park
5 Hess-Hathaway Park
6 Lions Park
7 Marion Street Park
8 Monteith Center Site
9 Optimist Park
10 Rotary Park
11 Shell Park
12 Waterford Civic Center Warming House
13 Waterford Historical Church
14 Elizabeth Lake Woods Park
15 CAI Building

Public Boat Launch

Neighborhood Parks

The neighborhood park remains the basic unit of the park system and serves as the recreational and social focus of the neighborhood. These sites are intended to be areas for active and passive recreational activities such as field games, court games, crafts, playground and playscape equipment, skating, hiking, and picnicking. This type of park is optimally suited to serve a neighborhood consisting of up to 5,000 people and having a service radius of one-quarter to one-half mile. The desirable size of such a facility is between five and ten acres. Park size may vary for individual sites, depending on neighborhood characteristics and the amount of land potentially available. Between one and two acres of neighborhood parkland should be provided for each 1,000 persons anticipated to reside within a given neighborhood area. Such facilities should be easily accessible to the neighborhood they are intended to serve, with consideration given to pedestrian and bicycle safety. Each site should be designed so that it relates to the characteristics of surrounding neighborhood.

School-Parks

When neighborhood parks are developed in conjunction with elementary school sites as shared school/park sites, they have many inherent advantages. These include reduced land costs and economies of scale relative to both development and maintenance. Joint use of development avoids the duplication of services and requires less total acreage than developing each facility independent of one another. In Waterford, elementary school sites are the main source of public facilities on the neighborhood level. Due to their strategic location throughout the Township, nearby residents of all ages are within a desirable walking distance so that they may take advantage of the sites' preserved open space, ball fields and/or playground equipment. As Table N-15 illustrates, some elementary school sites contain acreage that exceeds the ideal acreage total, but every school site does fall within the optimum range.

Community Parks

Community parks are larger in size than neighborhood parks and serve two or more neighborhoods. Their focus is on meeting active and passive recreation needs while preserving unique landscapes and open spaces. This classification of park allows for group activities and other recreational opportunities generally not feasible in neighborhood parks due to size limitations and usage intensity. A community park customarily includes areas suited for intense recreational facilities such as swimming pools, swimming beaches, archery ranges, ice skating areas, ball fields, and tennis courts. They are frequently areas of diverse environmental quality, featuring areas of natural quality for outdoor recreation activities, such as walking, viewing nature, and picnicking. Each community park should ideally be about 30 to 50 acres in size. Although its service area should be 0.5 to 3.0 miles in radius, the quality of the natural resource base should play a significant role in site selection. Ideally, community parks should be provided at a ratio of between five and eight acres per 1,000 persons.

Sports Complexes

The sports complex classification is a specialized subset of the community park classification. The intent of this classification is to highlight those facilities that consolidate heavily programmed athletic fields and associated facilities at larger and fewer sites strategically located throughout the community. This allows for: economies of scale and higher quality facilities, improved management/scheduling, improved control of facility use, greater control of negative impacts to neighborhood and community parks, such as overuse, noise, traffic congestion, parking, and domination of facilities by those outside the neighborhood. Sport complexes should be developed to accommodate the specific needs of user groups and athletic associations based on demands and

program offerings. Sports complexes include fields and courts for softball, soccer, tennis, basketball, volleyball, and racquetball. Sports complexes should be strategically located to serve customers community-wide. Ideally, sports complexes should be provided at a ratio of between five and eight acres per 1,000 persons. The ideal sports complex should be a minimum of 25 acres in size, with an optimum size of 40 to 80 acres.

Regional Facilities

Regional park facilities are usually maintained by County or State agencies; the local government unit is not responsible for them. Nonetheless, they provide recreational opportunities which must be considered in the overall recreational system for the Township. Most of these regional facilities are larger than parks in the other classifications and can offer a greater variety of recreational experiences. This type of park is optimally suited to serve customers within one hour driving time of the park. Between five and ten acres of regional parkland should be provided for each 1,000 persons residing within the community. Ideally regional parks should be about 200 acres in size, although specialized facilities may require a smaller size to match the use, such as the boat launch sites.

Natural Resource Areas

Many communities have established goals to acquire land to ensure that it remains undeveloped and in its natural state, providing citizens with open space and visually pleasing natural landscapes. These acquisitions fall within the natural resource areas classification, which are lands owned and reserved by the public to preserve significant natural resources and protect property unsuitable for development in accordance with the community's land use regulations. The objective of acquiring and maintaining Natural Feature Areas does not mandate an optimum size. The optimum size will be directly related to what a community wants to preserve and protect. The customer service area will also depend upon how much of the natural features area the community wishes to encourage public access.

Special Use Facilities

The special use facilities classification provides for an extensive range of parks and recreation facilities that are generally operated to provide a single-purpose use. Some communities may find that organizations or businesses are operating recreational uses that were developed around its cultural or historic sites. Others may be traditional single purpose facilities such as community centers, senior centers, hockey arenas, golf courses, or bowling alleys. The size and service area of this recreation facility classification will vary depending upon the customer base of the facility and the specific type of use.

Current Recreation Facilities Inventory

The Township's parks and recreation system is managed by the Parks and Recreation Department through its administrative offices in the Montieth Activity Center on the Civic Center Campus. The Waterford Parks and Recreation Department has grown along with the increase in the amount of park acreage, number of recreation facilities, and number of programs offered. The department coordinates recreational programs for youth and adult as well as the maintenance of all the Township parks. The Township's park and recreation facilities, as shown in Table N-14, range from active recreational facilities to passive nature preserves. In addition to the Parks and Recreation Department, several entities operate and maintain recreational facilities in the Township, which are shown in Table N-15. Playgrounds, fields, and other facilities at schools managed by Waterford Public Schools provide additional recreational opportunities for Waterford residents.

While the Township has undertaken a broader role as a provider of recreation services, it recognizes the financial limitations accompanying such an expanded role. To lessen the financial burden of an expanded recreation role and to avoid an unnecessary duplication of services, the Township promotes the need and wisdom to foster and expand cooperative arrangements with other recreation providers, especially the Waterford School District, Oakland County Parks, and the State of Michigan. The results of this cooperative effort is seen in the variety of recreational facilities provided by agencies other than the Township.

Table N-14: Inventory of Township-Owned Parks and Recreational Facilities

Name and Location	Facility Classification	Site Size	Description
CAI Building 5640 N Williams Lake Rd	Special Use	8.5 acres	Activity center for the Golden Age Club and youth programs, room rentals, enrichment classes, Branch Library.
Civic Center Park 5200 Civic Center Drive	Community	15 acres	Monteith Parks and Recreation Administrative Offices and Activity Center with gymnasium, four regulation soccer fields, natural pond used for winter skating, exercise trail/fitness stations, picnic shelter with fireplace/warming house for winter skating and 35 person meeting room with kitchenette, restrooms.
Clinton River Canoe Site 5971 Elizabeth Lake Rd	Special Use	2.5 acres	Public canoe landing, children's play apparatus area, picnic shelter, grill, and tables.
Clinton River Park South	Natural Resource Area	34 acres	Undeveloped passive parkland, nature preserve, canoeing in section 33 of the Township (adjacent to Haviland Elementary School).
Elizabeth Lake Woods Park	Natural Resource Area	205 acres	Undeveloped passive parkland, nature preserve, canoeing in sections 28, 29, 32, and 33 of the Township.
Fish Hatchery Park 4490 Hatchery Rd	Special Use	7 acres	Renovated historic farmhouse, office and museum of the Waterford Historical Society, restrooms, boardwalk, fishing, canoe docks.
Herrington Park 1216 Lochaven Road	Community	32 acres	Concessions, restrooms, two lighted ball fields, picnic area, picnic shelter, children's play apparatus, nature trail.
Hess-Hathaway Farm Park 825 S Williams Lake Rd	Community	149 acres	Restored 1860's farmhouse, animal exhibit barn, one ball field, two volleyball courts, two horseshoe courts, picnic shelters, gazebo, playground area, handicap-accessible children's "boundless" playscape, restrooms, community meeting room, nature trails for hiking and cross country skiing, group hayrides, farm animal tours.
Lions Park 4250 Fenmore	Community	26.5 acres	Picnic shelter, restrooms, one lighted ball field, picnic area, children's play apparatus area.
Marion Street Park Northern end of Marion Street	Natural Resource Area	17 acres	Nature trails, handicap-accessible trail, observation decks.
Mill Pond Park 5860 Andersonville Rd	Community	1 acre	Waterford Cultural Center offices and gallery, small banquet/meeting rooms, picnic area, fishing, canoeing.
Optimist Park 5320 Elizabeth Lake Rd	Community	10 acres	Concession stand, restrooms, three ball fields, children's play area, picnic shelter, picnic area, lighted basketball court.
Rotary Park 5485 Tubbs Road	Community	8 acres	Picnic shelter, restrooms, concession stand, two ball fields, play area, five soccer fields.
Shell Park 4373 Dixie Hwy	Community	13 acres	Three ball fields, picnic shelter, grills, and tables, play area, concession stand, restrooms.

Source: Waterford Township Parks and Recreation Department, Community Planning and Development Department

Table N-15: Inventory of Non-Township-Owned Parks and Recreational Facilities

Name and Location	Classification	Size	Description
Waterford School District			
Jayno W. Adams Elementary 3810 Clintonville Road	School-Park	12 acres	Playground equipment and fields, two tennis courts, one basketball court, indoor gymnasium.
William Beaumont Elementary 6532 Elizabeth Lake Road	School-Park	10 acres	Playground equipment and fields, one basketball court, indoor gymnasium.
William Austin Burt Elementary 581 S. Winding	School-Park	10 acres	Playground equipment and fields, one basketball court, indoor gymnasium.
Thomas M. Cooley Elementary 2000 Highland Street	School-Park	10 acres	Playground equipment, one basketball court, indoor gymnasium.
David Grayson Elementary 3800 W. Walton Blvd.	School-Park	5.5 acres	Playground equipment and fields, one basketball court, indoor gymnasium.
Laura Smith Haviland Elementary 5305 Cass Elizabeth Road	School-Park	11 acres	Playground equipment and fields, two tennis courts, one basketball court, indoor gymnasium.
Donelson Hills Elementary 2690 Wewoka	School-Park	11 acres	Playground equipment and fields, one basketball court, indoor gymnasium.
Douglass Houghton Elementary 8080 Elizabeth Lake Road (White Lake Twp)	School-Park	13 acres	Playground equipment and fields, two basketball courts, indoor gymnasium.
Patricia E. Knudsen Elementary 5449 Crescent Road	School-Park	17 acres	Playground equipment and fields, one basketball court, indoor gymnasium.
Eliza Seaman Leggett Elementary 3621 Pontiac Lake Road	School-Park	9 acres	Playground equipment and fields, one basketball court, indoor gymnasium.
Della Lutes Elementary 5195 Pontiac Lake Road	School-Park	9 acres	Playground equipment and fields, one basketball court, indoor gymnasium.
Kingsley Montgomery Training 4265 Halkirk	School-Park	5 acres	Playground equipment and indoor gymnasium.
Riverside Elementary 5280 Farm Road	School-Park	10 acres	Playground equipment and indoor gymnasium.
Carl Sandburg Elementary 1355 Merry	School-Park	6 acres	Playground equipment and fields, one basketball court, indoor gymnasium.
Henry R. Schoolcraft Elementary 6400 Maceday Drive	School-Park	11 acres	Playground equipment and fields, one basketball court, indoor gymnasium.

Name and Location	Classification	Size	Description
Stepanski Early Childhood Center 6010 Hatchery Road	School-Park	10.5 acres	Playground equipment, one soccer field.
Waterford Village Elementary 4241 Steffens	School-Park	7.5 acres	Playground equipment and fields, two tennis courts, two basketball courts, indoor gymnasium.
Isaac E. Crary Middle 501 N. Cass Lake Road	Sports Complex	37 acres	Two ball fields, four tennis courts, one basketball court, one unlighted football/soccer field, indoor gymnasium.
Steven T. Mason Middle 3835 W. Walton	Sports Complex	35 acres	Outdoor running track, four ball fields, one basketball court, one unlighted football/soccer field, four tennis courts, indoor gymnasium.
John D. Pierce Middle 5145 Hatchery Road	Sports Complex	24 acres	One running track, two ball fields, one unlighted football/soccer field, four tennis courts, one basketball court, two indoor gymnasiums.
Four Towns Discovery 6370 Cooley Lake Road	School-Park	5 acres	Playground field, one basketball court, indoor gymnasium.
Manley Voyager Alternative 2989 Van Zandt	School-Park	11 acres	Playground equipment, one basketball court, indoor gymnasium.
Waterford Kettering High 2800 Kettering Drive	Sports Complex	49 acres	One running track, six tennis courts, three ball fields, two football/soccer fields, one lighted football field, two indoor gymnasiums.
Waterford Mott High 1151 Scott Lake Road	Sports Complex	70 acres	One running track, six tennis courts, one basketball court, three ball fields, two football/soccer fields, one sand volleyball court, one lighted football field, one indoor gymnasium.
Waterford Senior Center 6455 Harper	Special Use	9 acres	Activity rooms for senior citizens, full kitchen and dining facility, library mini-branch
Oakland Community College			
Highland Lakes Campus S. Hospital Road	Community	18 acres (on 137 acre site)	Four tennis courts, one ball field
Oakland County Parks			
Waterford Oaks County Park 1702 Scott Lake Road	Regional	155 acres	Water Park including; wave pool, water slide, the "Big Bucket" (children under 43"), Ragin' Rapids, picnic shelters, beach volleyball, BMX, refrigerated toboggan run and Lookout Lodge. Court Games Complex to include, shuffleboard, sand volleyball, tennis and horseshoes.
State Parks			
Cass-Dodge Park #4	Regional	139 acres	Public beach, one-mile Cass Lake shoreline, public access boat ramp, restrooms, courtesy pier, ADA accessible.
Crescent Lake Boat Launch	Regional	2 acres	Public access boat ramp
Lake Oakland Boat Launch	Regional	7 acres	Public access boat ramp, restrooms, courtesy pier.
Loon Lake Boat Launch	Regional	4 acres	Public access boat ramp, restrooms, courtesy pier.
Maceday Lake Boat Launch	Regional	1 acre	Public access boat ramp, restrooms, courtesy pier, ADA accessible.

Name and Location	Classification	Size	Description
Pontiac Lake Recreation Area	Regional	416 acres in Waterford (on 3,800 acre site)	Three campgrounds with total of 176 campsites, 1/3-mile long beach, public access boat ramp, restrooms, courtesy pier, one ball field, hunting area, rifle range, 17 miles of horse-riding trails, 11 miles of mountain bike trails, 1.9 miles of hiking trails, cross-country skiing, snowmobiling.
Private Non-Profit			
Drayton Plains Nature Center 2125 Denby	Natural Resource Area	148 acres	Interpretive nature center, meeting rooms, nature tours, bird and tree identification, hiking, birding, gift center.
Private For-Profit			
Airway Lanes 4825 Highland Road	Special Use	One facility on 5 acre site	32 lane bowling alley, banquet room
American Fitness 5806 Dixie Highway	Special Use	One facility on 2 acre site	Aerobic and weight fitness equipment
Bally Total Fitness 1490 North Oakland Blvd.	Special Use	One facility on 2 acre site	Aerobic and weight fitness equipment, indoor jogging track, indoor pool.
Century Bowl 7345 Highland Road	Special Use	One facility on 7 acre site	52 lane bowling alley,
Concorde Inn 7076 Highland Road	Special Use	One facility on 3 acre site	Limited access indoor recreational pool inside hotel facility
Holiday Inn Express 4350 Pontiac Lake Road	Special Use	One facility on 10 acre site	Limited access indoor recreational pool inside hotel facility
Lakeland Ice Arena 7330 Highland Road	Special Use	One facility on 5.5 acre site	Three indoor ice hockey rinks.
Lakewood Lanes 3121 West Huron	Special Use	One facility on 1 acre site	14 lane bowling alley,
Oakland Yard Athletics 5328 Highland Road	Special Use	10 acres	Golf driving range (domed in the winter), sand volleyball courts.
Pontiac Lake County Club Golf Course 4335 Elizabeth Lake Road	Special Use	100 acres	18 hole golf course, clubhouse, restaurant.

Name and Location	Classification	Size	Description
Powerhouse Gym 2529 Elizabeth Lake Road	Special Use	One facility on 4 acre retail center site	Aerobic and weight fitness equipment
Premier West Lanes 7102 Cooley Lake Road	Special Use	One facility on 8 acre site	40 lane bowling alley, restaurant
Prescription Fitness 5210 Highland Road	Special Use	3 acres	Aerobic and weight fitness equipment, indoor lap pool, outdoor fitness trail
Silver Lake Golf Course 2602 W. Walton Blvd.	Special Use	47 acres	9 hole golf course, clubhouse, restaurant.
Sport-Way Miniature Golf 4355 Highland Road	Special Use	4.5 acres	Go-kart track, miniature golf, batting cages
300 Bowl 100 S. Cass Lake Road	Special Use	One facility on 5 acre site	52 lane bowling alley, banquet facilities
World Gym 5064 Highland Road	Special Use	One facility on 9 acre retail center site	Aerobic and weight fitness equipment
Zero Gravity Skate Park 1585 Crescent Lake Road	Special Use	One facility on 6 acre site	Indoor skate park, 17,000 square feet of skate floor with ramps, ledges, fly boxes, real street obstacles, and a wall ride.

Source: Waterford Township Parks and Recreation Department, Community Planning and Development Department

Current and Projected Park and Recreation Needs

The inventory of Waterford's park and recreational facilities described in Tables N-14 and N-15 provide the following summary inventory of recreation facility classifications:

Neighborhood Parks

No acreage

School-Parks

176 acres 100% Waterford School District properties

Community Parks

254.5 acres 100% Township properties

Sports Complexes

215 acres 100% Waterford School District properties

Regional Parks

724 acres 21% County properties, 79% State properties

Natural Resource Areas

404 acres 63% Township properties, 37% Private Nonprofit properties

Special Uses

27 acres for community/senior/historic/special park activities
67% Township properties, 33% Waterford School District properties

14.5 acres for outdoor activities	100% Private For-profit
147 acres for golf courses	100% Private For-profit
1 indoor skate park	100% Private For-profit
1 ice arena	100% Private For-profit
2 limited access indoor recreation pools	100% Private For-profit
5 bowling centers with a total of 190 lanes	100% Private For-profit
5 physical fitness facilities	100% Private For-profit

As stated earlier, the evaluation of Waterford's recreation facilities inventory is based upon standards relating the amount of recreational facilities in each classification to the population served. Standards published by the Michigan Department of Natural Resources provide a variety of alternatives, which communities can tailor to their particular needs. The totals above have been calculated for the number of recreation acres per 1,000 persons for the Neighborhood Park, Community Park, and Regional Park classifications and are shown in Table N-16. From the totals, Waterford is currently not deficient in parkland in any of the three categories. Furthermore this capacity is expected to be maintained during the next twenty years; even if the population increases as projected and no further parkland is purchased. Evaluation of more specific items such as the number, types, ages, and conditions of recreational facilities like gymnasiums, ball fields, playground equipment will be covered in the 2003 Recreation Plan.

Table N-16 Projected Recreation Facilities Service Levels by Classification – 2003-2020

Recreation Facility Classification	Optimum Recreation Acres per 1,000 persons	Current Total Recreation Acres Available	2003 Recreation Acres per 1,000 persons *(current based on 2000 population of 73,150)*	2005 Recreation Acres per 1,000 persons *(based on projected population of 74,500 and no additional acquisitions)*	2010 Recreation Acres per 1,000 persons *(based on projected population of 76,576 and no additional acquisitions)*	2020 Recreation Acres per 1,000 persons *(based on projected population of 79,848 and no additional acquisitions*
Neighborhood Parks *(includes School-Parks)*	1 - 2	176	2.4	2.4	2.3	2.2
Community Parks *(includes Sports Complexes)*	5 - 8	469.5	6.4	6.3	6.1	5.9
Regional Parks	5 - 10	724	9.9	9.7	9.4	9.1

Source: Waterford Township Parks and Recreation Department, Community Planning and Development Department, David N. Ammons, Municipal Benchmarks, SAGE 1996

A few things must be noted however. First, the Township's complete current inventory of Neighborhood Parks is supplied by the School District through the established School-Parks. The Township may want to evaluate the addition of some Neighborhood Parks owned by the Township, in particular in those areas where an elementary school is not readily accessible. One alternative to the public acquisition of Neighborhood Parks is the development of smaller, private parks in individual subdivisions. These private parks would be owned and maintained by homeowner or condominium associations and may include playground or playscape equipment for children and other amenities intended to meet the recreation needs of the intended occupants of the project.

Another item of note is that there is no public indoor swimming pools readily accessible to the general public, students, and scholastic swim athletes in Waterford Township. This is a serious deficiency from the safety point of view in a township which contains such an abundance of water bodies. It is recommended that the Township consider the construction of an indoor community pool as part of a new full-service community center or if Township funds cannot be raised to achieve the goal in this manner, consideration might be given to adopting the common practice in urban communities where public swimming pools are constructed as additions to the high schools. While such a program would make pools available for daytime use for school activities such as physical education programs and athletic programs, community programs would be limited to evening hours. Another option might be to consider Township construction of a single community pool at a new community center for general community use while the School District constructs the competitive pools for its physical education programs and athletic programs.

The Township should continue to preserve its existing limited natural open space areas to guarantee the availability of open space and nature study areas as integral elements in the local recreation programs. It is evident through the master planning process that such areas be protected, expanded, continue to provide usable sites characteristic of the local natural environment, and offer only limited access to fragile environmental areas.
There continues to be two senior centers operating in the Township. The Senior Drop-In Center is

located in the northwest quadrant of the Township and offers meals and social services throughout the School District. The Township provides the other center at the CAI Building, offering arts, crafts, educational, and recreational activities; no meals are furnished. A new senior center/community center has been proposed for the Township to provide a permanent long-term solution to fulfilling all of the needs of senior citizens. There is a question as to how long the Senior Drop-In Center will continue. The Township facility is inadequate in terms of meeting senior needs. Therefore, a centralized facility is proposed at the Township Civic Center. Based upon the master planning process and Master Plan Goals, a new community center facility remains as a viable proposal. Usage of the building would include: administrative offices, a senior wing, a community center wing, dual-use classrooms, kitchen, dining room, gymnasium, and potentially a community pool as described above. These needs must be coordinated into the site planning process to ensure that whichever site and building design is chosen, it accommodates the need for current services and allows for the expansion of services.

LIBRARY

Library facilities and services provide another essential quality of life element within a viable community structure. Library facilities combine elements of recreation, education, and cultural enrichment. There are a variety of individual, family and group functions which are enhanced through library services. The American Library Association recognizes that library services focus on five basic objectives - education, information, research, aesthetic appreciation, and recreation. The staff of the Waterford Township Public Library is committed to providing these quality of life services to Waterford residents. The mission of the Waterford Township Public Library is to:

- Provide current, high-demand, high interest materials in a variety of formats for persons of all ages
- Encourage young children to develop an interest in reading and learning through its services for children and its services for parents and children together
- Provide timely, accurate and useful information for Waterford residents in pursuit of personal and work-related interests
- Assist students of all ages and in all educational settings to meet their general information and research needs
- Provide access to the Library collection and facilities for all community residents on an equal, publicly funded basis.

Since libraries play an important role in both educational and recreational functions of government, their proper site location is important from a community planning perspective. Convenience is one of the primary site location considerations. It is desirable to have the central library located within a block or so of the main business district or civic center and possess convenient access to major traffic arteries and transportation facilities. There should also be adequate off-street parking facilities. The Waterford Township Public Library offices and Main Library building are strategically located near the center of the Township, at 5168 Civic Center Drive on the Civic Center Campus. The Waterford Township Public Library was established as a private library in 1945. It was funded and operated by the Waterford Mothers Club. Originally located in the Community Activities, Inc., building, the Township Board passed a resolution in 1963 declaring this library to be a public library. The Library's original Main Library building was constructed as one of the first buildings on the Civic Center Campus in 1964. The original building experienced several expansions since 1964, with a major expansion and modernization in 1995 increasing the size of the building from 6,500 square feet to 21,000 square feet. The 1995 expansion was the result of the support of the Township's citizens by voting for the

passage of the first library millage passed in 1992. This millage was renewed with the voters continued support in 2002. Additional building improvements and a small expansion are planned to take place during the next two years, increasing the building size to just over 27,000 square feet.

Currently the Main Library's holdings total 121,580 materials. The number of holdings in circulation is 1.7 items per capita (the service population also includes the City of Lake Angelus). The current shelving capacities for the various branches are found in Table N-17. The Library plans continued improvements in the services it provides Township residents through the provision of more story times and reading programs and adding greater depth and breadth to the library collection. The Library has also been a strong advocate in establishing collections of new non-print formats of materials as well as providing citizens the capabilities of computers and internet access as new and effective ways of finding data and information. Over 36% of residents, or 27,030, possess a Waterford Township Library card. Visits to the library have increased during the past three years, 204,560 visits in 2000, 206,689 visits in 2001, and 211,057 visits in 2002. Also in 2002, nearly 384,000 items were borrowed from the Library.

Table N-17 Library Shelving Capacities - 2003

Facility	Shelving Capacity
Main Library	85,000
Branch	9,000
Each Mini Branch	400

Source: Waterford Township Library

The Branch Library is located in 600 square feet of space in the CAI Building on Williams Lake Road, east of Airport Road. The Branch Library houses a collection of 13,844 materials. The Library has also established Mini Branch Libraries in eight locations: the Waterford Senior Center and seven senior housing developments, Lakeland Place, the Inn at Cass Lake, Canterbury on the Lake, Whispering Woods, Fox Manor (Lourdes), Mendelson House (Lourdes), and Lockwood of Waterford. Beginning in 1995 the Library also began administering the Waterford School District library system, creating an efficient and integrated Township-wide library services.

EDUCATION FACILITIES

While the Township has no control over school operations or functions, the infrastructure needs of the school system impacts the community's overall land use plan, particularly with the location of school buildings. Schools are, therefore, considered as part of this analysis for coordination purposes in addition to their contribution to the recreation facilities inventory described earlier in this Appendix.

The educational needs of Waterford Township residents are primarily served through the Waterford School District. There is a small section of the Township along its eastern border served by the Pontiac School District and a small section of the Township along its northern border served by the Clarkston School District. Since the 1991 Master Plan was prepared, a continued decline in family sizes and birth rates have prompted the Waterford School District to reduce the number of elementary schools from 17 to 15. The number of middle schools remains at three and the number of high schools at two. The School District has also undertaken efforts to utilize some of its buildings for the education of target populations. There is one early childhood learning facility, one facility to address the District's special education needs, and two alternative high schools. The School District's administrative building and service facilities are located within Waterford

Township. The characteristics of these schools, including the date of original construction, building additions, the number of classrooms, estimated classroom capacity and current enrollment levels, are reflected in Tables N-18 and N-19.

The School District still retains near 100 acres at two vacant property sites in the southwest section of the Township to provide for potential future enrollment increases in that part of the Township. Overall, it appears that a degree of stabilization has been achieved regarding enrollments and trends indicate that no change is anticipated during the next 20 years. Today, all schools appear to be operating at enrollments somewhat below their maximum capacity. Based on these findings, it is not anticipated that site expansions or additions will be necessary to accommodate an increase in the student population. However, the School District continues to undertake a program of additions to existing school facilities to provide current computer and communication technologies to Waterford students, as well as modernized physical fitness facilities.

In addition to the public school system, there are several private elementary schools and one private high school, Our Lady of the Lakes, located within the Township.

OAKLAND COMMUNITY COLLEGE

The Oakland Community College system comprises five campuses throughout Oakland County and is the largest community college in the state. The Highland Lakes campus, located in the southwest section of the Township, contains buildings totalling approximately square feet on a total of acres. The college has been located in Waterford since 1980. The site is the former location of the County sanitarium. The majority of students come from lakes area communities such as Waterford, White Lake, West Bloomfield, Commerce, Highland, and Milford.

Table N-18 Waterford School District Elementary School Building Inventory - 2003

Name of Elementary School	Location	Number of Classrooms	2001-2002 Enrollment	Optimum Student Capacity	Date Built	Additions	Site Size (in acres)
Jayno W. Adams	3810 Clintonville Road	13	370	430	1951	1955, 1957	8.0
William Beaumont	6532 Elizabeth Lake Road	16	315	520	1957		10.0
William Austin Burt	581 S. Winding	18	390	540	1956		11.5
Thomas M. Cooley	2000 Highland Street		479				
David Grayson	3800 W. Walton Blvd.	22	335	600	1960		5.5
Laura Smith Haviland	5305 Cass Elizabeth Road	12	338	380	1959		10.9
Donelson Hills	2690 Wewoka		330				
Douglass Houghton	8080 Elizabeth Lake Road in White Lake Township	12	422	380	1961		12.2
Patricia E. Knudsen	5449 Crescent Road	14	265	400	1967		17.0
Eliza Seaman Leggett	3621 Pontiac Lake Road	16	329	500	1956		9.3
Della Lutes	5195 Pontiac Lake Road	14	312	425	1960		6.9
Kingsley Montgomery	4265 Halkirk		0				
Riverside	5280 Farm Road	20	348	630	1964		9.8
Carl Sandburg	1355 Merry	12	282	375	1960		7.7
Henry R. Schoolcraft	6400 Maceday Drive	21	422	700	1957	1959	11.5
A. J. Stepanski Early Childhood Center	6010 Hatchery Road		110				
Waterford Village	4241 Steffens	14	388	414	1915	1961	7.0
Total Elementary Schools							

Source: Waterford School District, Michigan State Department of Education

Table N-19 Waterford School District Secondary School Building Inventory - 2003

Name of Secondary School	Location	Number of Classrooms	2001-2002 Enrollment	Optimum Student Capacity	Date Built	Additions	Site Size (in acres)
Isaac E. Crary Middle	501 N. Cass Lake Road	39	736	1,084	1953		37.1
Steven T. Mason Middle	W. Walton	50	960	1,598	1965		52.3
John D. Pierce Middle	Hatchery Road	49	943	1,318	1958		30.5
Four Towns Discovery	6370 Cooley Lake Road	14		500	1928	1955	4.0
Manley Voyager Alternative	2989 Van Zandt	14		425	1966		11.0
Waterford Kettering High	2800 Kettering Drive	48	1,416	1,262	1961		49.1
Waterford Mott	1151 Scott Lake Road	56	1,750	1,540	1969		71.1
Total Secondary Schools							

Source: Waterford School District, Michigan State Department of Education

APPENDIX O: CAPITAL IMPROVEMENTS PLAN

NOTE: During the period in which this Master Plan is effective, capital improvements plans will be incorporated into this Appendix. The intent of this Appendix is to serve as a collection point for the capital improvements plan and future amendments. Therefore, Appendix O is adopted as part of this Master Plan by reference to the forthcoming capital improvements planning content prepared by Township staff and approved by the Planning Commission.

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APPENDIX P: NEIGHBORHOOD NODE AND AREA CONCEPT PLANS

NOTE: During the period in which this Master Plan is effective, all neighborhood node and area concept plans approved as completed Master Plan implementation action items by the Planning Commission are incorporated into this Appendix. The intent of this Appendix is to serve as a collection point for plans developed and approved as part of the Master Plan implementation efforts. Therefore, Appendix P is adopted as part of this Master Plan by reference to the forthcoming content, as prepared by Township staff and when approved by the Planning Commission.

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APPENDIX Q: ZONING ORDINANCE AND LANDSCAPE AESTHETICS SUBCOMMITTEE DRAFT ORDINANCE REPORT

NOTE: The intent of this Appendix is to serve as the collection point for the final draft Zoning Ordinance Report prepared by the Zoning Ordinance and Landscape Aesthetics Subcommittee and submitted to the Planning Commission as part of the Master Plan implementation efforts. Therefore, Appendix Q is adopted as part of this Master Plan by reference to the forthcoming content, as prepared by the Subcommittee and Township staff, and when approved by the Planning Commission.

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APPENDIX R: WATERFORD RECREATION PLAN

NOTE: The Waterford Parks and Recreation Department is required to conduct a five year Recreation Plan in order to qualify for receipt of state grant funding to address the recreation needs established in the plan. The last Recreation Plan was adopted in 1997 and remained effective through early 2002. The next version of the Recreation Plan is being prepared concurrently with this Master Plan, and should be ready for adoption sometime in early 2003. Once adopted, this version of the Recreation Plan will remain in force for five years. During the period in which this Master Plan is effective, the operative Recreation Plan is adopted as this Appendix of the Master Plan, by reference.

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APPENDIX S: WALKABILITY STUDY

NOTE: The Walkability Study was prepared by Beckett & Raeder, Inc. of Ann Arbor, Michigan with the objective of presenting the Township with a document that could be used to implement the walkability projects identified in the study. Because the implementation of this study achieves Master Plan Goal Three, *To Enhance the Walkability of Waterford*, the May 2001 Waterford Walkability Study is adopted as this Appendix of the Master Plan by reference.

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APPENDIX T: WELLHEAD PROTECTION PLAN

NOTE: In 1997, Waterford Township commenced organization of its Wellhead Protection Plan, expanding from the Oakland County Wellhead Protection Program, which they had joined in 1996. Enlisting the services of Snell Environmental Group, Inc. (now DLZ Michigan, Inc.), delineation studies of the first group of well sites was begun and the Wellhead Protection Team was formed.

The Waterford Township Wellhead Protection Team has met several times over the past two years, to develop the Waterford Township Wellhead Protection Plan. This plan is the result of the dedicated and cumulative effort on the part of the Waterford Township Wellhead Protection Team. The Team will continue to develop the Wellhead Protection Plan as it evolves in response to the ever-changing influence of social, economic, environmental and political impacts. Because the implementation of this study achieves Master Plan Goal One, *To Maintain, Improve, and Enhance Capital Infrastructure and Public Safety for the Health, Safety, and Welfare of Waterford Citizens*, and Master Plan Goal Six, *To Ensure and Enforce Land Use Development Practices that are Sensitive to Waterford's Natural Environment*, the Wellhead Protection Plan is adopted as this Appendix of the Master Plan by reference.

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APPENDIX U: OAKLAND COUNTY INTERNATIONAL AIRPORT MASTER PLAN

NOTE: **The Oakland County International Airport (OCIA) Master Plan has been prepared to assess and direct improvements that will be required to accommodate future aviation demands. One of the purposes of this plan is to document long-term development recommendations. These recommendations are, in part, summarized in the OCIA capital improvement project list that has been prepared as part of the master planning documentation. The Oakland County International Airport Master Plan is adopted as this Appendix of the Master Plan, by reference, because the implementation of this plan achieves Master Plan Goal One, *To Maintain, Improve, and Enhance Capital Infrastructure and Public Safety for the Health, Safety, and Welfare of Waterford Citizens*, Master Plan Goal Two, *To Improve and Enhance the Transportation Network within Waterford*, Master Plan Goal Four, *To Create an Economic Climate Conducive to the Attraction, Retention, and Expansion of Business*, Master Plan Goal Six, *To Ensure and Enforce Land Use Development Practices that are Sensitive to Waterford's Natural Environment*, and Master Plan Goal Seven, *To Retain, Enhance, and Promote Waterford's Unique Character, Sense of Community, and Identity*.**

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APPENDIX V: WATERFORD SCHOOL DISTRICT MASTER PLAN

NOTE: The Waterford School District (WSD), a governmental organization that derives its powers and responsibilities from the Michigan State Legislature, undergoes its own master planning process to assess and direct improvements that will be required to achieve its mission. The active Waterford School District Master Plan documents are adopted as this Appendix of the Master Plan, by reference, because the implementation of this plan achieves Master Plan Goal Four, *To Create an Economic Climate Conducive to the Attraction, Retention, and Expansion of Business*, Master Plan Goal Five, *To Provide Improved Recreational Opportunities to Waterford Citizens*, and Master Plan Goal Seven, *To Retain, Enhance, and Promote Waterford's Unique Character, Sense of Community, and Identity*.

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APPENDIX W: OAKLAND COUNTY SERVICE CENTER COMPLEX MASTER PLAN

NOTE: **Since a portion of the Oakland County Service Center Complex is located on nearly 200 acres of property in the eastern section of the Township, the active Oakland County Service Center Master Plan documents are adopted as this Appendix of the Master Plan, by reference, because the implementation of this plan achieves Master Plan Goal One, *To Maintain, Improve, and Enhance Capital Infrastructure and Public Safety for the Health, Safety, and Welfare of Waterford Citizens*, Master Plan Goal Two, *To Improve and Enhance the Transportation Network within Waterford*, Master Plan Goal Four, *To Create an Economic Climate Conducive to the Attraction, Retention, and Expansion of Business*, and Master Plan Goal Seven, *To Retain, Enhance, and Promote Waterford's Unique Character, Sense of Community, and Identity*.**

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