

RUTLAND CHARTER TOWNSHIP
BARRY COUNTY, MICHIGAN

MASTER PLAN



AUGUST 2004

DRAFT

W I L L I A M S & W O R K S

ACKNOWLEDGEMENTS

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RUTLAND CHARTER TOWNSHIP:

INTRODUCTION

This Plan reflects the community's deep concern for the natural beauty of its surroundings and a strong commitment to retain and strengthen local quality of life.

This Master Plan represents the culmination of nearly 18 months work by numerous local residents and local officials. It reflects the community's deep concern for the natural beauty of its surroundings and a strong commitment to retain and strengthen local quality of life. The plan outlines the preferred future for the community and a master plan to realize it. The Plan focused where necessary to address key issues, yet general in overall scope, recognizing that planning for the future is a delicate blend of art and science, and that sufficient flexibility is needed to respond to the challenges of the future.

This Plan was developed in response to the constant pace of growth and development in the Township over the last 10 to 15 years, and due to the need and desire to have a plan that provides the Township with a solid decision-making foundation. It is based on a recognition on the part of the Planning Commission and Township Board of the need to view the pace and character of growth and development in the context of its long-term impact on the community as a whole.

Rutland Charter Township is primarily a rural residential community located west of the City of Hastings, offering significant amounts of open space and public land. These attributes, along with the relatively short driving distance to the Grand Rapids area along M-37, are good indicators that Rutland Charter Township will continue to experience growth pressures and increase in population.

The fundamental purpose of the Master Land Use Plan is to enable the Township Planning Commission to establish a future direction for the Township's physical development. The Township Planning Act, Public Act 168 of 1959, as amended, specifically gives the Township Planning Commission the authority to prepare and officially adopt a plan. Once prepared, officially adopted, and maintained, this Plan will serve as an advisory guide for the physical conservation of certain areas and for the development of other areas.

Because of constant change in our social and economic structure and activities, the Plan must be maintained through periodic review and

revision so that it reflects contemporary trends while maintaining long-range goals. The Plan will be effective to the degree that it:

- ◆ reflects the needs and desires of the citizens of Rutland Charter Township;
- ◆ realistically interprets and reflects the conditions, the trends, and the dynamic economic and social pressures that are brought about by change; and
- ◆ inspires consensus and cooperation among the various public agencies and the citizens of the Township toward achieving common goals.

THE PURPOSE OF THE MASTER PLAN

When the Planning Commission began the plan preparation process, it had several objectives. First, it was important to clearly define the priorities of the Township with regard to growth and development and land use. Secondly, the Township sought to develop a plan that is responsive to protecting the quality of life through the balance of natural features protection while allowing sustainable growth and development. Thirdly, the planning process was seen as an opportunity to build and strengthen a community consensus about the future land use patterns in the Township. Finally, the Planning Commission sought realistic and effective mechanisms to achieve the plan's objectives.

This Township Master Plan accomplishes all these objectives. More specifically, this Plan will serve the Township in the following ways:

1. It provides a comprehensive means of integrating proposals that look years ahead to meet future needs regarding general and major aspects of physical conservation and development throughout the Township;
2. It serves as the official advisory policy statement for encouraging orderly and efficient use of the land for residences, businesses, industry, and agriculture, and for coordinating these uses of land with each other, surrounding population centers, streets and highways, and other necessary public facilities and services;

3. It creates a logical basis for zoning, subdivision design, public improvement plans, and for facilitating and guiding the work of the Township Planning Commission and the Township Board as well as other public and private endeavors dealing with the physical conservation and development of the Township;
4. It provides a means for private organizations and individuals to determine how they may relate their building and development projects and policies to official Township planning policies; and
5. It offers a means of relating the plans of Rutland Charter Township to the plans of overall Barry County area.

PLAN METHODOLOGY

The planning process involved four inter-related phases:

- ◆ Community Opinion Survey
- ◆ Community Consensus
- ◆ Master Plan Preparation
- ◆ Action Strategies

The objective of the first phase was to gain the input of Township residents through a community opinion survey. The Township Planning Commission developed the survey with the assistance of planning consultants and distributed it to all property owners on the Township tax roll. The survey responses were tabulated and considered an important tool to the Planning Commission to measure the attitude of Township residents in regard to overall land use, growth, and development. Based in part on the survey results, Township officials felt it was appropriate to begin the creation of a new Rutland Charter Township Master Plan. The results of the survey can be found in Appendix A.

After the Community Profile (Chapters 1 through 6) was completed, Rutland Charter Township hosted a futuring workshop to gather additional public input through a nominal group process. The workshop took place on May 21, 2003 and was attended by over 30 Township residents. The output of that session formed a futuring report (Appendix B), which the Planning Commission used to form the initial plan goals and objectives. As the project proceeded into later phases, those goals and objectives were refined and modified.

The third phase, Master Plan Preparation, involved drawing together the input from the Opinion Survey, Community Profile, and Futuring Workshop to prepare the draft Future Land Use Map and Designations. This phase included conducting several workshops with the Planning Commission, interested residents, and other Township officials to develop language that clearly represents the interests of the citizens of Rutland Charter Township.

The final phase of the process involved the development of specific implementation strategies to carry out the plan. These are reflected in general terms in Chapter 9. At the conclusion of the fourth phase, a public hearing on the entire plan was held by the Planning Commission.

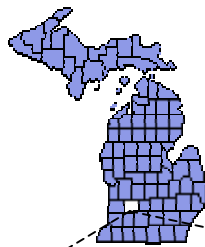
Finally, on May 19, 2004, a community open house was held to present the draft plan and gather citizen comments. After the open house, final adjustments were made to the Plan based on comments from citizens and the Plan was recommended to the Township Board for approval for distribution. The Township approved distribution to all the adjacent jurisdictions, including all townships, cities, and Barry County for comment as required by the new Coordinated Planning Act. On _____ the official public hearing was held by the Planning Commission. The Plan was ultimately adopted by the Planning Commission on _____, and the Township Board endorsed the Plan by resolution adopted on _____.

CHAPTER 1. NATURAL & CULTURAL FEATURES

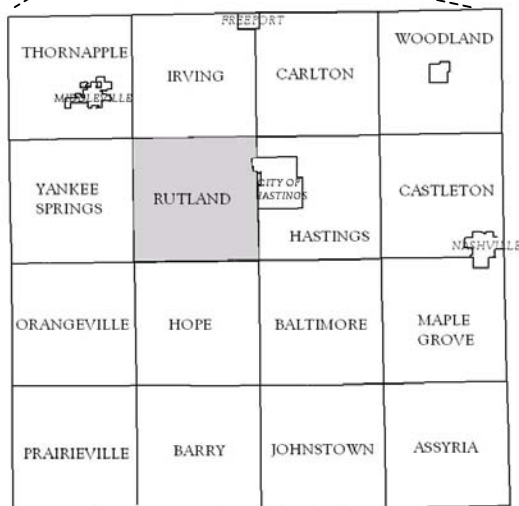
Rutland Charter Township is located in southwest Lower Michigan in Barry County. Rutland Township is a classic rural community consisting of nearly 36 square miles of area. The City of Hastings is located east of Rutland Township and serves as the commercial hub of the Barry County region. Many significant natural features, including rivers, streams, large and small lakes, natural forests, and productive farmland, characterize the Township. The Township is centrally located with Grand Rapids, Kalamazoo, and Lansing all within a driving time of about an hour or less on local two-lane Michigan highways.

The following discussion addresses significant natural and cultural features in the community of Rutland Township.

CULTURAL AND HISTORICAL FEATURES



The first white settlers arrived in Barry County in 1831. At that time, the forestland and rolling countryside was considered to be a favorite hunting ground among the Indians who traveled from as far away as the Upper Peninsula.¹ Barry County was named after President Andrew Jackson's Postmaster, General William T. Barry.



Barry County was one of the last counties organized in the southern tier of the Lower Peninsula. The white settlers and the Indians co-existed peaceably.¹ Today, Barry County is an area with dairying and farming, with crops including corn for grain, winter wheat, barley, oats, and hay. The County is also characterized by significant amount of public lands that include the Barry State Game Area, the Middleville State Game Area, and Yankee Springs State Park.

The main geographical features for Barry County are the many lakes, which can be found throughout the area. Gun Lake, located in Yankee Springs Township, is the largest inland lake in Southern Michigan and provides plenty of opportunity for many types of recreational activities. East and north of Gun Lake, the Barry State Game Area offers approximately 15,000 acres of public

**Barry County
Location Map.**

¹ Barry County Website, 2003

land, which is renowned for excellent hunting. A large portion of the Game Area stretches into the southwestern portion of Rutland Township.

Climate

According to the Midwestern Regional Climate Center², an organization that recorded annual climatic conditions between 1971 and 2000, temperatures in the Township averaged 26.3°F in the winter. These temperatures, along with an average of 57 inches of snowfall annually, are conducive to many wintertime activities such as cross-country skiing, snowmobiling, and ice fishing.

During the summer, the average temperature of 66°F makes for a pleasant and comfortable environment for fishing, golfing, hiking, and many other outdoor summer activities. The average annual rainfall for the Township is 36 inches.

TOPOGRAPHY, GEOLOGY & SOILS

The slopes and drainage of the area have been determined by where and how much glacial debris was deposited in particular areas.

Soils in the region developed from unconsolidated glacial till weathered by the action of the climate, animals and vegetation. Most of the Township is rolling with scenic views throughout the area. Soil topography is a characteristic of soil that generally illustrates the slope or lay of the land. As the glaciers melted and receded to the north, they deposited debris (e.g., soils sediment and rocks) in the form of till and moraines. Till was typically deposited in a uniform manner as the glacier receded, while moraines were created when the glacier essentially dumped its debris in one particular location. The slopes and drainage of the area have, therefore, been determined by where and how much glacial debris was deposited in particular areas.

Topography can create limitations for development if the slopes are too extreme. The topography in the Township rarely exceeds 20-percent slope and does not create severe development limitations. Potential development limitations may exist in the flood plains of the community as these soils can experience constant or seasonal wetness and steeper slopes. The Thornapple River, being the largest drainage of Rutland Township, generates some of these topographical attributes.

² Midwestern Regional Climate Center Website, 2003.

Soils

According to the U.S. Department of Agriculture Soil Conservation Service, Soil Survey of Barry County³, the soils in the Rutland Charter Township fall into six distinct soil groups: Coloma-Boyer, Marlette-Oshtemo, Houghton-Sloan, Oshtemo-Coloma-Marlette, Coloma-Boyer-Spinks, and Oshtemo-Coloma-Marlette (see Map 1). Map 2, Soil Development Suitability, illustrates the general coverage of these soil groups. The following discussion describes the characteristics of each.

Soil Classifications

Coloma-Boyer Association. This soil type, located in the northeast and northwest portion of the Township, is a low slope soil (0 to 6 percent) that is mostly well drained to excessively well-drained sandy soils. The Coloma-Boyer Association is generally well suited for crops, pasture, building site development and septic tank absorption fields.

Marlette-Oshtemo Association. This moderately sloping to steep soil type consists primarily of well drained loamy soils. Located in the southeast portion of the Township, these soils are generally not well suited to major crops such as corn and soybeans, but serve well for hay and woodlands. Site development and septic suitability can be generally poor to well suited to this soil classification depending on the specific location.

Houghton-Sloan Association. This soil type is located in the lower landscapes of the Township primarily surrounding the Thornapple River, Glass Creek, and Podunk Lake. Characterized by poorly drained and mucky soils, this soil type is not well suited for building development or septic tank absorption fields.

Coloma-Boyer-Spinks Association. This generally sandy soil is located primarily in the southwest portion of the Township and consists of slopes ranging between 6 and 40 percent. A large portion of this association is located in the Barry State Game Area and is undeveloped.

³ Soil Survey of Barry County, Michigan, U.S. Department of Agriculture Soil Conservation Service, October 1990.

Oshtemo-Coloma-Marlette Association. This association is located primarily in the central region of the Township and in the northeast portion edge of the Township. It is the largest classification within the jurisdiction. The slopes range from 6 to 40 percent, which provides Rutland Township with the characteristic rolling terrain. This soil type varies greatly throughout region and, depending primarily upon the steepness, can be fairly well suited to poorly suited for building foundations and septic system drain fields. Similarly, this soil is fairly suitable for cropland and pasture, but specific areas, depending on make up and slope, are susceptible to erosion.

Septic Limitations

Private on site individual septic disposal systems (ISDS) are utilized throughout the county as the primary method of solid and liquid waste disposal from homes not connected to public sewer. The composition of soils is a key component to proper function and life span of an ISDS and the Eaton-Barry County Health Department is responsible for inspecting and permitting all systems in Barry County. Map 2 is a generalized map that illustrates the septic suitability of the soils in the Township. Clearly, a majority of the soils are delineated as “severe,” meaning that these soils are not suitable for an ISDS. However, this map was created from generalized soils map and determining an appropriate location for an ISDS can only be identified with an on site soil inspection. In other words, Map 2 may demonstrate that most of the soils in Township would not be suitable for on site systems, however most areas prove to have at least one specific area suitable for an ISDS.

An ISDS is designed to disperse liquid waste over a drain field and catch solid material in a septic tank. In order to ensure proper function of an ISDS, regular maintenance should be performed throughout the life of ISDS. Maintenance intervals will depend upon the age, design, and intensity of use. New developments utilizing on site systems are now often required to designate reserve drain field locations for future use when or if the soils fail to adequately filter liquid waste.

[Map 1 Generalized Soils](#)

2 Septic Tank Limitations

LAKES, WATERSHEDS, DRAINAGE, AND WETLANDS

When discussing lakes, watersheds, drainage, and wetlands, it is important to realize the interconnectivity of each of these natural attributes. If one of these features is changed or impacted through natural or human activities, it is likely that the other attributes will be affected. The protection of water quality in Rutland Charter Township depends on more than the actions or policies that one jurisdiction may make. Unpredictable natural occurrences and individual actions can also create changes in water quality. The Rutland Charter Township Master Plan focuses primarily on the current and future land use aspects that can help the Township keep or improve the water quality of the local area and region.

Lakes

The larger lakes in Rutland Charter Township include Algonquin, Podunk, Otis, Tanner, and Purdy. There are many smaller lakes and ponds throughout the Township including Barry #8 (North and South) and Twin North (see map 3).

The increased use of aging individual septic systems in these dense residential areas may add to the nitrate levels in the ground and surface water in the area.

Algonquin Lake, being the largest lake in the Township, has been a draw for both seasonal and year-round residents. Practically all of the land around this lake has been divided and platted for single-family homes. The trend around Algonquin Lake, like most inland lakes in Michigan, is for property owners to improve a smaller seasonal cottage into a fully-functional year-round home. One of the potential impacts of this trend may be the degradation of the water quality in and around the lake. The increased use of aging individual septic systems in these dense residential areas may add to the nitrate levels in the ground and surface water in the area. Public sewer does not serve the properties surrounding the lake nor are there plans to extend sewer to this area at the time of this writing.

Podunk Lake is the other lake in the Township that has fairly significant residential development. Development on the northeastern shore of the lake has likely been limited, as the soils in this area are typically wet.

Otis Lake is located within the Barry State Game Area in the southwest region of the Township and its shores are not developed. There is a public access facility located on the eastern shore that allows the visitors to launch boats into the lake.

Watersheds

Water quality within a watershed is directly related to the land management practices within that watershed.

A watershed is a region of land that is drained by a particular river or river system. Watershed systems include many smaller tributaries such as creeks and streams that feed into a larger river and are influenced by elevation or the lay of the land. The Thornapple River, Glass Creek, and Fall Creek are the primary watersheds in Rutland Township (see Map 3).

The Thornapple River Watershed incorporates the northeastern portion of Rutland Township, which includes several dense residential developments, Algonquin Lake and most of the City of Hastings. The Glass Creek Watershed is located in the southwest and central areas of the Township, while the Fall Creek Watershed is in the very southeast portion of the Township. Watersheds are a reminder that natural

processes do not follow political boundaries, and planning for healthy environments can transcend the abilities of individual jurisdictions.

The Thornapple River Watershed Council is an organization dedicated to protecting the water quality in the Thornapple River Watershed. They have organized river clean up activities with other local organizations, such as the Barry County Water Quality Action Committee. Overall, these groups work to educate the population about the importance of protecting the Thornapple Watershed.



Thornapple River provides excellent opportunities, such as fishing and boating.

Glass Creek Watershed originates in Hope and Orangeville Townships and then extends north through Rutland Township to the Thornapple River. Fall Creek Watershed, encompassing the least area of the three watersheds, stretches from Hope Township to the City of Hastings. Fall Creek is also a tributary to the Thornapple River.

Water quality within a watershed is directly related to the land management practices within that watershed. For example, if a new development creates a large amount of impervious surface (e.g., asphalt) and storm water is not properly managed, it is possible that the rate and volume of flow into the creek, stream, or river will increase to a point that stream bank erosion occurs. Stream bank erosion will increase silt material on the streambed, thereby changing the chemistry of the water with phosphates, nitrogen, and other chemicals, and altering the

turbidity of the water. All of these changes may have an effect on the wildlife that is dependent on the stream or river for survival.

Drainage

**The entire
Thornapple River
Watershed includes
227 lakes, 741 total
river miles, and a
total area of 876
square miles.**

A defining element of the Township is the Thornapple River. Today, the riverfront offers excellent recreational destinations, residential locations, and wildlife habitat. However, development can impact water quality due to fertilizer application and other human-related activities.

The Thornapple River originates in eastern Eaton County, meanders west into Barry and Kent Counties, and eventually gives its water to the Grand River in Ada Township, just east of the City of Grand Rapids. The Grand River flows west and eventually to Lake Michigan. The entire Thornapple River Watershed includes 227 lakes, 741 total river miles, and a total area of 876 square miles⁴. There are over 48 different kinds of fish species in the Thornapple River, illustrating a healthy and clean river. Species include large and small mouth bass, bluegill, trout, catfish, walleye, and perch.

In 1995, the Natural Resources Conservation Service (NRCS), a division of the United States Department of Agriculture (USDA), proposed a flood plain study for the Thornapple River. As of January 2001, the project, officially called the *Thornapple River Flood Plain Management Study*, was approved and work began in the summer of 2001. The project will include detailed hydraulic and hydrologic studies with the management study scheduled for completion in 2004. The study area will include a 38-mile stretch of the Thornapple from McKewan Road, southeast of Hastings in Barry County, to the headwaters in Eaton County. The goal will be to identify the 10, 50, 100, and 500-year flood plains. With these flood plains identified, wise land use decisions can be made that will promote public health and safety.

Map 4 illustrates the relief, or lay of the land, in the Township through contour lines. Part of what causes relief is glacial recession activity at the end the ice age and the watercourses that formed that slowly erode the terrain. For example, the Thornapple River basin, being the primary drainage course in the Township, generally has the lowest elevation, which explains why it is fed by many smaller and higher elevation tributaries.

[Map 3 Watersheds](#)

⁴ Website, www.thornapppleriver.com 2003

Map 4 Contours

Wetlands

Wetlands play a critical role in regulating the movement of water within watersheds. Wetlands are characterized by water saturation in the root zone, or above the soil surface, for a substantial amount of time during the year. The fluctuation of the water table above and below the soil surface is unique to each wetland type.



Wetlands store precipitation and surface water and then slowly release the water in associated water resources, ground water, and the atmosphere.

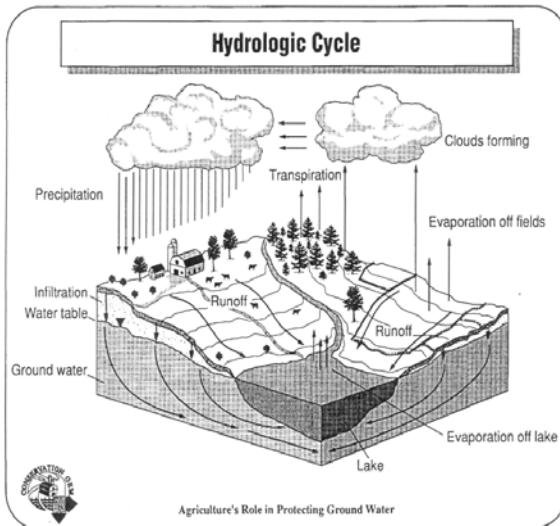
Wetlands store precipitation and surface water and then slowly release the water in associated water resources, ground water, and the atmosphere. They help maintain the level of the water table and may serve as filters for sediments and organic matter. They may also serve as a sink to catch water, or transform nutrients, organic compounds, metals, and components of organic matter. Wetlands have the ability to impact levels of nitrogen, phosphorous, carbon, sulfur, and various metals. Without them, water quality decreases, areas are prone to flash flooding and habitat for specialized plants and animals is reduced.

Map 5 illustrates the location of the wetlands within the Township identified and mapped by the National Wetlands Inventory (NWI). While the NWI illustrates the general location of wetlands in the Township, an on-site analysis should be conducted by a professional to verify the specific boundaries of wetlands. Wetlands that are adjacent to or associated with surface water and larger than five acres in size are subject to regulation by the Natural Resources and Environmental Protection Act (Part 303 - Wetlands Protection, Act 451 of 1994), which requires permission from the Michigan Department of Environmental Quality to fill or alter the wetland site.

[Map 5 Wetlands](#)

The few pockets of wetlands in the Township are typically associated with the drainage courses of the local creeks and around the Thornapple River.

Groundwater and Surface Water



David P. Lusch, Center for Remote Sensing, Michigan State University

Rutland Charter Township relies on individual wells for water supply and doesn't use a public water system. Though abundant, the groundwater supplies in the Township can be affected as more area becomes impervious and greater demand is placed on groundwater supplies.

There are many different ways groundwater can be polluted. Two major contributors are application of fertilizer on crops and residential lawns and septic tank drain field effluent. Proper fertilizer application management and septic tank maintenance may help to significantly reduce nitrate levels. Abandoned wells may also be a threat to groundwater quality if they have not been properly closed. Open wells may expose groundwater supplies to surface contaminants.

Wildlife

The existing brush, woodlands, wetlands, native grasslands, and drainage ways of Rutland Township provide good habitat for wildlife. Wildlife species include white-tailed deer, cottontail rabbits, raccoons, squirrels, red and gray fox, muskrat, mink, opossum, skunk, various songbirds and waterfowl, ruffed grouse, and woodcocks. The survival and/or enhancement of wildlife in the Township is dependent on the habitat that is available in Rutland Township. New development that divides or destroys critical habitat areas may deplete wildlife populations.

Prime Farmland

The resource value of soils lies mainly in agriculture. Map 6 illustrates general locations of locally important prime farmland as indicated by the Michigan Department of Natural Resource, Michigan Resource Information System (MIRIS) 1978 data. Prime farmland, as defined by the U.S. Department of Agriculture, is the land that is best suited to food, feed, forage, fiber, and oilseed crops. The soil qualities, growing

season, and moisture supply are those needed for a well-managed soil to produce a sustained high yield of crops in an economic manner. Prime farmland produces the highest yields with minimal expenditure of energy and economic resources.

[Map 6 Prime Farmland](#)

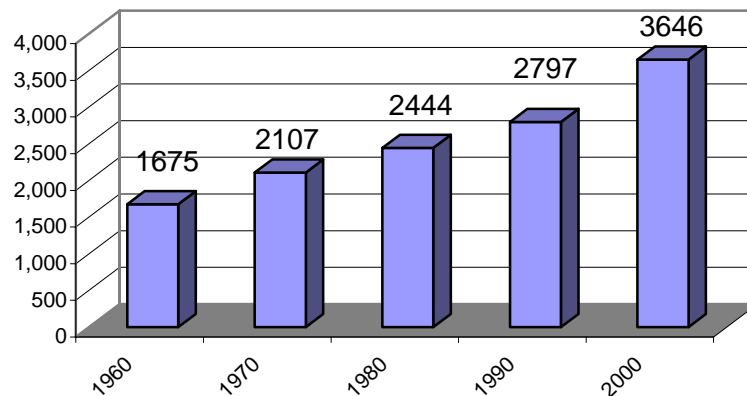
CHAPTER 2. POPULATION

Population is among the most important measures to express growth and its likely impact on land uses in a community. Therefore, it is vitally important to achieve an understanding of the Township's population and its growth trends in order to prepare a meaningful and realistic Master Plan. This section of the Master Plan is intended to achieve an initial understanding of the characteristics of the Township's population and demographic trends.

To begin, it is appropriate to determine the overall growth the Township has experienced in the recent past. The community has experienced significant growth over the second half of the 20th century, without decline, with a reported total population of 3,646 in 2000.⁵

The Township's population has steadily increased over the last 40 years.

Figure 1. Rutland Charter Township Historic Population Growth



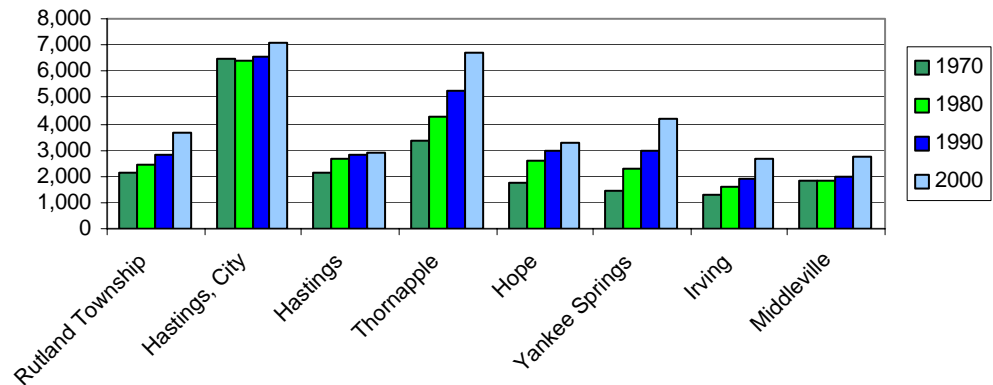
It is also helpful to put the Township's population shifts into the context of the region and compare population growth with neighboring communities. Figure 2 compares the 30-year population growth history in Rutland Township with that of other communities in the County. Almost all communities in the comparison have consistently illustrated a strong population growth over the last 30-year period. Only the City of Hastings and Village of Middleville lost population between 1970 and 1980.

A noticeable trend is occurring in the northwest portion of the County, especially in Irving and Thornapple Townships and the Village of

⁵ US Census Bureau

Middleville. It appears that the burgeoning Grand Rapids metro area is beginning to spill over into Barry County as more residents look for new homes in a rural setting. For instance, between 1990 and 2000, the Village of Middleville had a population increase of 38.4%, while Irving Township had an increase of 40.8%, and Thornapple Township had an increase of 27.9%. Most of the Townships in the eastern and southern portions of the County saw only single-digit growth in the same period.

Figure 2. Comparative Rates of Population Growth



Projections

For the purposes of this Community Profile, statistical averaging techniques were used to project the Township's population growth to the year 2030. These approaches are adequate to give a general sense of growth trends, but have limitations, especially in areas of rapid growth or decline that may run counter to statistical trends. Future trends are based on past trends documented by the United States Bureau of Census.

These approaches help give a sense of scale to future land use requirements as well as the demand for various public services and capital improvements. The following summarizes the projection techniques.

The Constant Proportion (or ratio) Method of projecting population assumes that Rutland Charter Township will continue to represent the same percentage of Barry County's projected population in the years 2000, 2010, and 2020 that it represents today. Using the preliminary population projections for Barry County prepared by the U.S. Census, the following table illustrates the results of the constant proportion method for Rutland Charter Township:

CONSTANT PROPORTION METHOD

	<u>2000 Population</u>	<u>2010 Population Projection</u>	<u>2020 Population Projection</u>	<u>2030 Population Projection</u>
Barry County	56,755	67,935	81,318	98,914**
Rutland Township	3,646	4,361	5,220	6,350

* Based on the percent of the County's total 2000 estimated population residing in Rutland Township = 6.42%.

** The US Census did not project County population through 2030, this figure results from an extrapolation of the rates of growth projected from 2000 through 2020 for another ten years.

The Growth Rate (or geometric) **Method** projects future population growth or decline based on the rate of growth in the Township in the past. Using the growth rate method, the following assumes that growth in the future will occur at the same average rate as has occurred annually since 1960. Using this approach over a five-decade span helps to smooth out any variance, but it also results in a fairly aggressive annual rate of growth.

GROWTH RATE METHOD

	<u>Average Growth Rate/10 yrs 1960-2000</u>	<u>2000</u>	<u>2010</u>	<u>2020</u>	<u>2030</u>
Rutland Township	21.6%	3,646	4,434	5,391	6,556

The Arithmetic Method is similar to the growth rate method in that population projections are based on growth that occurred in preceding decades. This method, however, bases population growth on the overall average increase in the number of persons per year, rather than on growth rates. The following projections are based on the average net increase of 492 persons between 1960 and 2000 in Rutland Charter Township, which are based on U.S. Census figures

ARITHMETIC METHOD

	Average Increase Each Decade (Number of Persons)	2000 Population	2010	2020	2030
Rutland Township	492	3,646	4,138	4,630	5,122

Based on an average of 2.72 persons per household, from 2000 to 2002, the Township should have added about 81 persons per year to its population.

The Building Permit Method may be the most reliable projection method because it portrays the growth based on current building permit data. Rutland Charter Township has issued residential building permits for an annual average of 30 units over the last three years. Assuming that building activity will continue at this rate, this method uses the Township’s average household size of 2.72 persons⁶ to calculate the growth in population. In other words, this method says that Rutland Township will increase by about 81 persons per year. Of course, since average household size has declined steadily in the United States over the past several decades, this methodology may slightly understate the rate of increase.

BUILDING PERMIT METHOD

Average No Permits/Year	Persons per H/H	2000 Population	2010	2020	2030
30	2.72	3,646	4,456	5,266	6,076

It is reasonable to predict that the population will approach approximately 4,347 persons by the year 2010; 5,126 by the year 2020; and about 6,026 by the year 2030.

The anticipated population levels for the Township using each of the population techniques are summarized below. By averaging the results of these methods, it is reasonable to predict that the population will approach approximately 4,347 persons by the year 2010; 5,126 by the year 2020; and 6,026 by the year 2030.

Each of the projection techniques illustrated here assumes that the Township will continue past patterns of growth. However, growth in housing and population in Rutland Township will be impacted by many factors. These include the types and quality of housing permitted or encouraged within the Township, the image of Rutland Township as a desirable place to live, the public school systems, the quality and quantity of commercial and industrial development, and the overall economic health of Southwest Michigan.

⁶ U.S. Census, 2000.

SUMMARY POPULATION PROJECTION SUMMARY

	<u>2000</u>	<u>2010</u>	<u>2020</u>	<u>2030</u>
Constant Proportion	3,646	4,361	5,220	6,350
Growth Rate	3,646	4,434	5,391	6,556
Arithmetic	3,646	4,138	4,630	5,122
Building Permits	3,646	4,456	5,266	6,076
Average	3,646	4,347	5,126	6,026

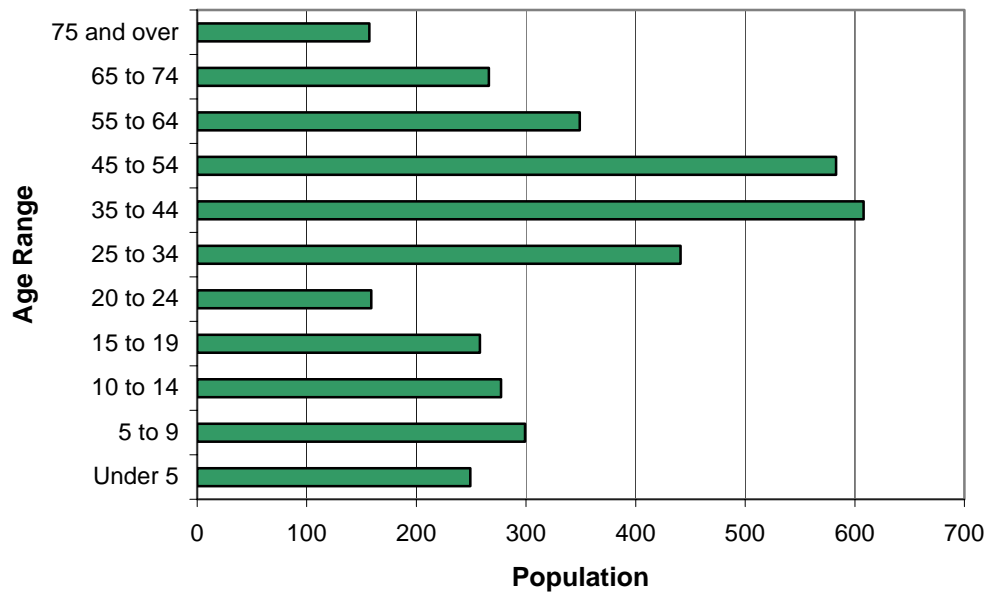
Clearly, if trends continue, especially with the fast rate of 30% growth between 1990 and 2000, Rutland Charter Township may experience significant growth pressure in the next 30 years. But, the above averaging approach mitigates the simple extrapolation of the 30% growth rate from '90-'00.

Age, Gender, and Racial Characteristics

Comparing the age distribution of a community over time provides another opportunity to measure change. Also, an age breakdown of a community's residents helps to determine the type of housing demands and recreational facilities that may be needed. In 2000, the median age of Rutland Township residents was 37.2 years, which was greater than Barry County (36.9 years) and greater than the State and the U.S. (35.5 and 35.3 years, respectively). The median age represents the mid-point in the range of all ages within the Township and County with one-half of the population younger and one-half of the population older than the median. Typically, the median age is viewed as an appropriate measure of the overall age of the population. Somewhat paralleling national trends, the population of Barry County and the Township is aging.

In general, it is possible to identify more uniformity in the age distribution as the population ages. The aging of the "baby boomer" generation (36 to 56 year-olds in 2000) is clearly evident. As the children of that generation continue to mature and have children, there is less variance in the numbers of individuals from one cohort to the next. This greater uniformity suggests a slowing in the rate of natural growth of the Township's population after the year 2020. Of course, growth through in-migration may continue and at least partially offset this trend.

Paralleling national trends, the population of Barry County and the population of the Township are aging.

Figure 3. Rutland Township Population Age⁷

The 20 to 64 years age group is important as it represents the prime wage-earning population and includes the sub-set for family formations. About 58.4% of the County's population falls in the 18 - 64 age group, while about 58.6% of the Township also falls into this category. Within this group are the prime family formation years (20 to 44 year olds = 33.1%) and the empty nesters (45 to 64 year olds = 25.5%). These combined age groups include the majority of the population. They represent the demand for single-family housing stock and recreational facilities; and, they signal future increases in the under 5 and 5 to 19 years age groups and increases in retail trade.

As a sub-set, the empty nesters group comprises nearly 20% of the Township's residents. Persons in this age group typically have reached their peak earning potential and have higher disposable incomes. The age group of 65 and older represented more than 11.6% of the Township's population in 2000, and it comprised about 11.8% of the population in the County.

The Township is approximately half male (50.7%) and half female (49.3%). Racially, Rutland Township is a predominantly white community. Only 1.5% of the population of Rutland Township is of a racial minority.

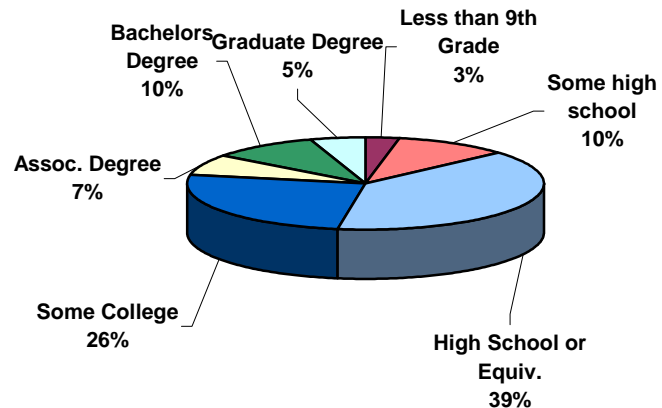
⁷ US Census Bureau, 2000, Table DP-1.

Education

The Hastings and Thornapple-Kellogg Public School Districts, the Barry Intermediate School District (Barry ISD), and the Kellogg Community College Fehsenfeld Center serve the residents of Rutland Township. There are no secondary or primary schools located within the Township due to the close proximity of the City of Hastings. The total student population in the Hastings Public Schools is 3,333 (K-12).

The 2000 Census indicates that within Rutland Charter Township approximately 38.2% of the population over 25 years of age have the equivalent of a high school education, with 14.2% having a bachelors degree or higher. In Barry County overall, approximately 39.9% of the population has at least a high school education with 9.8% reporting a bachelors degree or higher.

Figure 4. Educational Attainment in Rutland Township⁸



By way of comparison, the U.S. Census reports that 31.3% of the population in Michigan has a high school education or equivalent and 21.8% has a bachelor's degree, or higher.⁶ When compared with the State overall, a greater percentage of the population of Rutland Township has attained at least a high school education. However, a greater percentage of the State's population has attained advanced degrees at the college or graduate level.

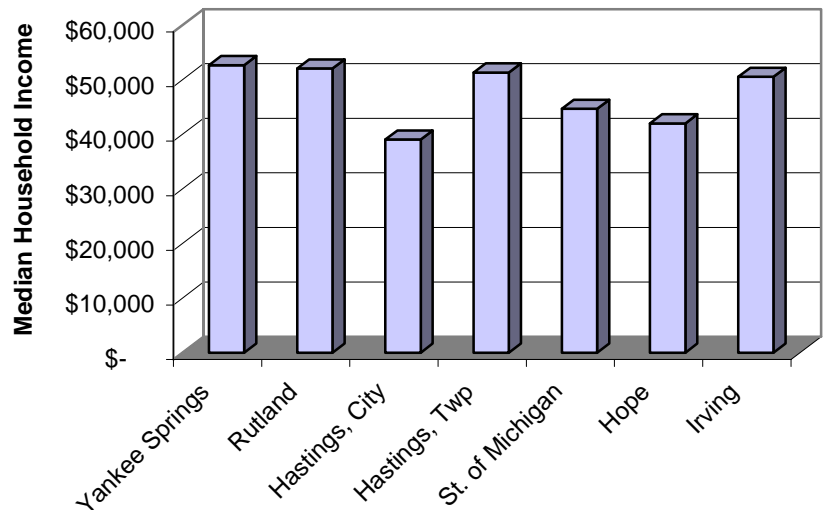
⁸ US Census Bureau, 2000.

Income

Median household income is commonly used as a measure of the comparative economic strength of an area. It is also a helpful indicator to identify differences among jurisdictions. Figure 5 below compares the median household income in the Township with its nearby neighbors, the County, and the State of Michigan. The 2000 median household income in the Township was \$52,065 compared with \$46,820 in the County and \$44,667 in Michigan. With the exception of the Yankee Springs Township, all of the communities that neighbor Rutland Township had a smaller median household income.

Income growth is frequently cited as a better indicator of economic health than static information on median incomes. It is, therefore, appropriate to determine whether the purchasing power of Rutland Township residents has improved relative to that of their neighbors.

Figure 5. Comparison of Household Incomes⁹

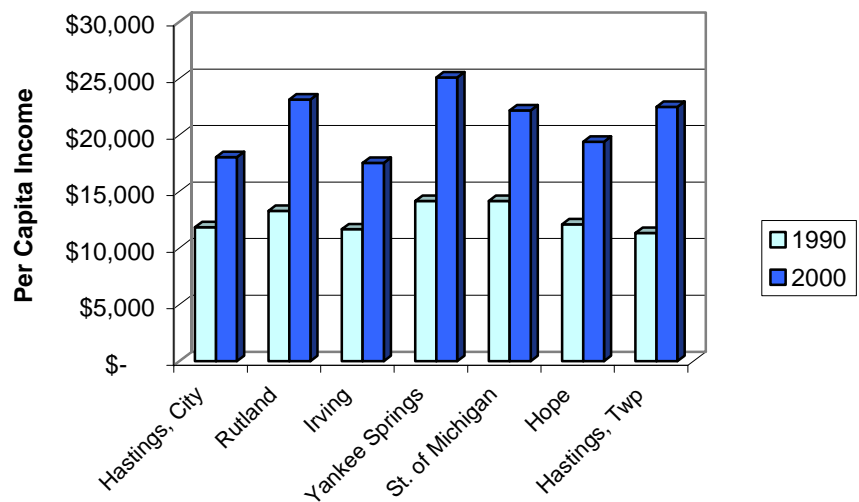


Total per capita income change is another important indicator of the economic viability of a community. This measurement simply divides total income in the community by its population. In 1990, the per capita income in Rutland Charter Township was \$13,294 and by 2000

⁹ US Census Bureau, 2000.

increased to \$23,141, an increase of 74% over ten years.¹⁰ During this period, per capita incomes in Barry County increased from \$12,417 to \$20,636; an increase of 66.2%, while per capita incomes in Yankee Springs Township increased by 77.1%. In fact, per capita incomes in the Township grew at a rate greater than most of the comparison communities, as illustrated in Figure 6.

Figure 6. Comparative Growth in Per Capita Incomes¹¹



The entire Rutland Township region saw fairly significant improvement in incomes during the 1990s, while Hope and Irving residents experienced the most modest increases.

The entire Rutland Township region saw fairly significant improvement in incomes during the 1990s, while Hope and Irving residents experienced the most modest increases. It is revealing that almost all per capita incomes increased at a greater rate than the County (66% between 1990 and 2000).

Neither median household income nor per capita income is a perfect measure of economic health, because each has limitations. Per capita incomes can seem to understate the economic viability of a community as compared to its neighbors if a greater percentage of the population is not employed (i.e. children or retirees). On the other hand, median household income reflects the midpoint in the range of all household incomes. Medians are a useful measure, but can be skewed by outlying values that distort the range.

¹⁰ The U.S. Census Bureau reports per capita income in current year dollars and to develop an accurate evaluation of true income growth it is necessary to adjust earnings to a common dollar value.

¹¹ U.S. Census Bureau, 1990 and 2000.

CHAPTER 3. HOUSING AND ECONOMIC DEVELOPMENT

This chapter reviews the current indicators of growth in the Township relating to housing and economic development.

Housing

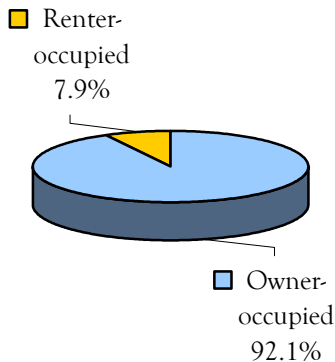
In 2000, there were 1,434 housing units in the Township. Of those, 93 (6.5%) were vacant during the 2000 Census count. Generally, when housing vacancy rates exceed 5%, there can be some concern for neighborhood stability. In Rutland Township's case, the vacancy rate is likely due to seasonal homes that are associated with the lakes or with the Barry State Game Area.

Another good test of the health of a community is the ratio of renter-occupied housing to owner-occupied housing. Generally communities strive to achieve a 2:1 or even 3:1 ratio of owner-occupied to rental housing within the market. Almost 90% of the homes in the Township are made up of detached single-family dwellings, illustrating a low occurrence of typical rental units, including apartments and duplexes. This point is further illustrated through the 2000 U.S. Census housing tenure for Rutland Township where over 92% of the housing in the Township is owner occupied.

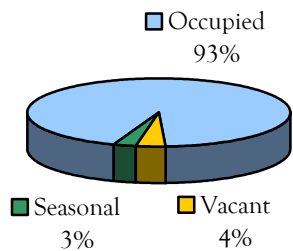
New Development

New residential growth has increased dramatically over the last 10 years. Between 1990 and 2000, the housing units in Rutland Township increase from 1,045 to 1,408, representing a 34.7% increase in overall housing units. As the Township parcel map illustrates (see Map 8), there are only a few subdivisions in the Township; therefore, it is likely that a majority of these homes were built on land divided through simple land divisions. If, for example, the average lot size for each one of these new homes is 2.3 acres, (2.3 acres is the minimum lot size in the RE - Rural Estate District - in the Rutland Township Zoning Ordinance, for which a large area of the Township is zoned) the total land area consumed for residential development between 1990 and 2000 would be 834 acres.

2000 Housing Tenure



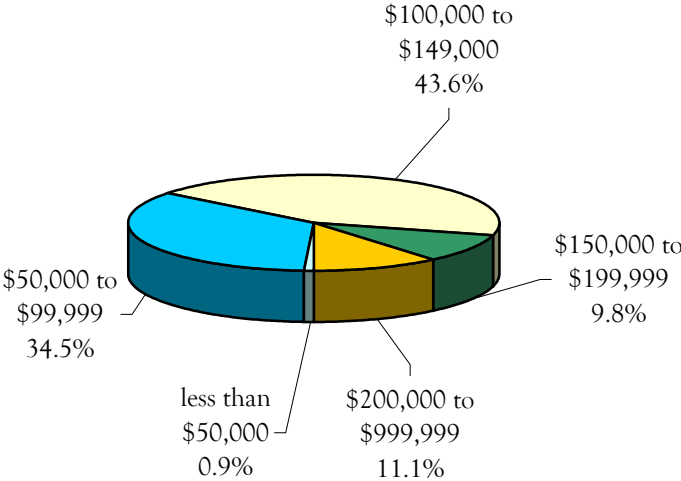
2000 Housing Occupancy



The 2000 Census reported that 42.9% of owner-occupied homes in Rutland Charter Township are valued between \$100,000 and \$149,999 and 34.5% of homes are valued between \$50,000 and \$99,000. This illustrates that the housing stock in the Township can be fairly affordable and obtainable to most residents in the community.

Figure 9

2000 Housing Value of Owner Occupied Units



Source: U.S. Census 2000

ECONOMIC DEVELOPMENT

Table 1 illustrates occupation categories for Rutland Township, Barry County, and the State of Michigan, as broken down by the US Census.

Table 1
Categorized Occupations for 2000

Occupation Categories	Rutland Charter Township		Barry County		State of Michigan	
	Employment	% of Total	Employment	% of Total	Employment	% of Total
Admin., Prof. & Mgmt. Services	551	29.9%	7,552	27.4%	1,459,767	31.5%
Sales & Office	110	6.0%	3,078	11.2%	687,336	14.8%
Construction	553	30.0%	6,523	23.7%	1,187,015	25.6%
Production	192	10.4%	3,114	11.3%	425,291	9.2%
Farming	430	23.3%	7,038	25.6%	856,932	18.5%
	8	0.4%	233	0.8%	21,120	0.5%
TOTALS	1,844	100.0%	27,538	100.0%	4,637,461	100.0%

Source: US Census Bureau, 2000

Relative to the County and State, employment in the Township tends to generally mirror employment category percentages. Almost two-thirds of employed residents in the Township found work in the “sales and office” and “administrative, professional and management” occupations. Moderate to high wage rates can characterize these occupations, which is consistent with the income information reported in Chapter 2.

The major businesses that impact Rutland Charter Township, their products, and the number of current employees are illustrated in Table 2 below.

Table 2
Major Employers in the Rutland Township/Barry County Area

	N ^o . of Employees	Product
Bradford White Corp	700	Water Heaters
Pennock Hospital	600	Health Care
Hastings Manufacturing	400	Motor Vehicle Parts
Hastings Area Schools	315	Education
Hastings Mutual Insurance	260	Insurance

Table 2, cont'd
Major Employers in the Rutland Township Area

	No. of Employees	Product
Flexfab	250	Silicone Hoses
Bliss Clearing Niagra	250	Machining/Metal work
Felpausch Food Center	250	Food sales and distribution
Viking Corp.	200	Sprinklers
Metal Dyne	165	Motor Vehicle Parts
JR Graphics	100	Engineering
Hastings Fiberglass	80	Plastics

The downsizing is reportedly the result of the downturn in the national economy and the consequential decrease in workload.

The majority of the area businesses are generally holding steady in production output and revenue. There have been reports of downsizing and streamlining in several of the manufacturing companies listed. The downsizing is reportedly the result of the downturn in the national economy and the consequential decrease in workload. The resulting increase of unemployment is not strictly localized to Rutland Charter Township. Surrounding townships have also been affected by the current economic slowdown. Companies being affected by the slowdown in production are hoping to recover within the next few years, but its current impact can be seen in Table 3.

Table 3
Average Unemployment Rates 1996- 2001

COMMUNITY	YEAR						% CHANGE 01-02
	1997	1998	1999	2000	2001	2002	
Rutland Township	3.7	3.3	3.2	3.3	4.6	5.1	10.8%
Barry County	3.5	3.1	3	3.1	4.3	4.7	9.3%
Barry Township	5.3	4.7	4.6	4.7	6.5	7.1	9.2%
Hastings, City	3.9	3.4	3.4	3.5	4.8	5.3	10.4%
Hastings Township	3.3	2.9	2.9	2.9	4.1	4.5	9.7%
Hope Township	5.2	4.6	4.5	4.6	6.4	7	9.3%
Irving Township	3.3	2.9	2.8	2.9	4	4.4	10.0%
Prarieville Township	4.5	3.9	3.9	3.9	5.4	6	11.1%
Thornapple Township	1.8	1.5	1.5	1.6	2.2	2.4	9.1%
Yankee Springs Township	1.8	1.6	1.6	1.6	2.3	2.5	8.70%

CHAPTER 4. LAND USE AND DEVELOPMENT PATTERNS

The total land area of Rutland Charter Township is just shy of 36 square miles, or approximately 23,000 acres. Rutland Township has generally been developed as a rural area with agricultural uses and open lands as predominate land uses. The Township borders the City of Hastings to the east and has accomodated for a limited amount of commercial and industrial development in this area. The southwestern portion of the Township is primarily open land associated with the Barry State Game Area. The remaining areas of the Township consist of mostly moderate to low density residential homes and various agricultural lands.

LAND USE

Land cover in Rutland Charter Township spans the entire range from sensitive environmental features to intense urban development.

The land use in Rutland Township is reflected in Map 7. The land use map is based on computerized mapping prepared by the Barry County Land Information Services. This map was created by analyzing the existing Township Zoning Map and the 1994 Michigan Resources Information System (MIRIS) map provided by the State of Michigan Geographic Library.

MIRIS is an effort to create a "statewide computerized database of information pertinent to land utilization, management, and resource protection activities."¹² MIRIS maps are prepared from aerial photography and reflect composite groupings of land categories. The original mapping for Barry County was done in 1978 and updated in 1994. Thus, the MIRIS mapping system is useful for general impressions of land uses but can include some misinterpreted features. Similarly, the purpose of any land use map is to gain the general impression, or bird's eye view of the community.

The land uses in the Township have been consolidated into eight categories with the acreage for each category estimated as follows on the next page.

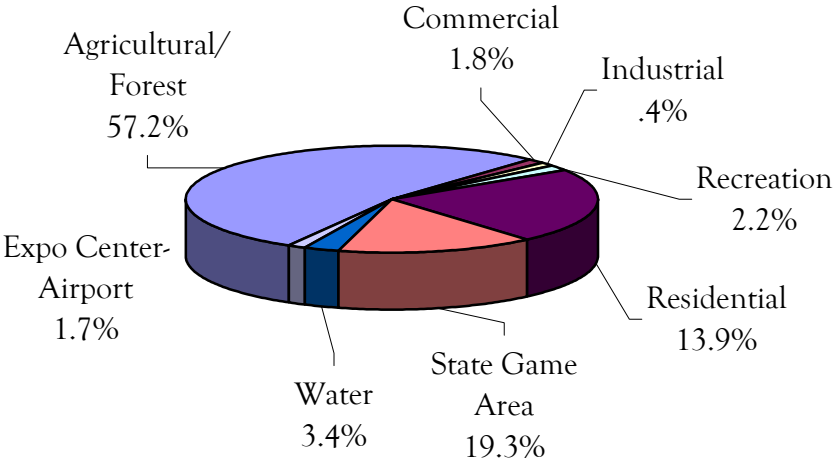
¹² Michigan Department of Natural Resources, Michigan Resource Inventory Program established under the Michigan Resource Inventory Act, 1979 PA 204.

Table 4

Land Use Breakdown

Land Classification	ACRES	%
Agriculture/Forest/Vacant	13,280	57.2%
Commercial	426	1.8%
Industrial	94	0.4%
Recreational	506	2.2%
Residential	3,231	13.9%
State Game Area	4,493	19.3%
Water	787	3.4%
Expo Center-Airport	403	1.7%
Total Acres	23,220	100.0%

Land Use Pie Chart



Residential

Similar to many other communities in Michigan, many of the homes on lake lots are being upgraded to year-round homes.

The largest concentration of existing dense residential development in the Township is located around Algonquin Lake, Podunk Lake, and along the M-37 corridor. A majority of the residential lots that surround Algonquin Lake are small cottage lots and were generally intended for seasonal use. Similar to many other communities in Michigan, many of the homes on lake lots are being upgraded to year-round homes. As land use intensifies, which includes rebuilding and enlarging of homes and increased effluent caused by aging septic systems, the integrity of the ground and surface water will be at risk.

There are two mobile home areas located in the Township; one is located at the intersection of M-37 and Whitmore and the other near the Woodruff and Solomon Road intersection. Both of these developments are in the northern portion of the Township.

Commercial and Industrial

Commercial and industrial development in the Township represents less than two percent of the land area in Rutland Township. Most of this type of development is typically strip development located along M-37 in the northeast portion of the Township, extending approximately 1.5 miles west of the City of Hastings boundary. The current Township zoning map also reveals that most property zoned commercial and industrial is within this area.

Studies, such as the M-120 Corridor Study completed in 2000 by the West Michigan Shoreline Development Commission, have been conducted that illustrate that strip commercial development can reduce the integrity and efficiency of major thoroughways. For example, every new development located along M-37 will require an access curb cut for vehicle entry. As the number of curb cuts increase, more vehicles will be entering and exiting the roadway, likely slowing the pace of traffic and decreasing safety.

Agricultural, Forested, and Vacant

Agricultural, forested, and vacant land uses are scattered throughout the Township and represents approximately 57% of land use in the Township. As Map 7 illustrates, there are some large contiguous areas of farmland in the Township that serve as productive cropland, hay fields, and pasture.

This land use category represents the largest land area (57.4%) of the Township. A majority of this land category is associated with the Barry State Game Area in the western portion of the Township. There are other large areas of forested and vacant areas throughout the Township that have been logged regularly through history. The soils associated with these land areas are likely not suitable to productive agricultural practices.

Recreation

This land category includes two golf courses, the gun club, and a bird sanctuary in the southwest portion of the Township and this category represents only 1.8% of the land area in the Township. There are no public community parks or schools located in the Township, making it necessary to travel to surrounding community facilities for developed outdoor recreation, including: basketball/tennis courts, soccer/softball fields, and traditional playgrounds.

[Map 7 Land Use](#)

CHAPTER 5. COMMUNITY FACILITIES AND SERVICES

Community facilities, such as schools, parks, and public buildings, play an important role in maintaining and improving quality of life. This chapter discusses these facilities and the comprehensive development needs of the Township. Map 8, on page 38, illustrates the location of the community facilities discussed in this chapter.

Public Schools

Community facilities, such as schools, parks, and public buildings play an important role in maintaining and improving quality of life.

The Hastings Area School System, Thornapple-Kellogg Public Schools, of the Barry Intermediate School District serve the Rutland Township area. Private and parochial schools provide alternatives to public education. Map 9 illustrates the current boundaries of the two school systems in Rutland Charter Township.

The Hastings Area School System includes one high school, one middle school, and five elementary schools. A majority of the schools, including the Hastings High School, Hastings Middle School, and Central, Northeastern, and Southeastern Elementary Schools, are located within the City of Hastings. Pleasantview Elementary School is located in Johnstown Township and Star Elementary is in Hastings Township. There were 3,333 students enrolled in the district for the 2002-2003 season. With a total of 212 teachers employed by the school system, there is approximately one teacher per 16 students.

The Thornapple-Kellogg School district, based in the Village of Middleville, encompasses the northwestern portion of the Township. The school district has a current enrollment of 2,840 students with an anticipated 2% growth per year, and the district has an exceptional graduation rate of 98%. With 169 teachers, there are about 17 students per teacher. The five schools associated with the district are all located within the Village of Middleville and the schools are broken into the following grade levels and schools:

- Kindergarden-1st grade – McFall Elementary
- 2nd – 3rd grade – Lee Elementary
- 4th and 5th grade – Page Elementary
- 6th, 7th, and 8th grade – T-K Middle School
- High school (grade 9, 10, 11, and 12) – T-K High School

The Barry Intermediate School District (Barry ISD), with offices located in the City of Hastings, provides a variety of services for the entire County. One function of the Barry ISD is special education, which

includes diagnosis of children with learning disabilities and treatment recommendation. Therapists and teachers from the Barry ISD perform their work in the local schools, on site, throughout the County. Some of the other services offered by Barry ISD include career preparation, professional staff development, attendance services, and educational consulting.

[Map 8 Community facilities](#)

[Map 9 School districts](#)

Kellogg Community College (KCC)

Nestled on 95 acres two miles west of Hastings on M-179, the KCC Fehsenfeld Center opened its doors in the fall of 1996 to residents of the Barry County community. The facility offers updated science and computer labs, general-purpose classrooms, and a interactive video classroom linking the center to Battle Creek, Coldwater, and beyond.

There are several other colleges within an hour's driving distance. In Kalamazoo, these schools include Hope College, Kalamazoo College, Kalamazoo Valley Community College, and Western Michigan University. Schools in Grand Rapids, include Grand Valley State University, Aquinas College, Calvin College, Kendall College, and Davenport University.

Barry Expo Center

The Barry Expo Center, located at 1350 N. M-37 Highway in Rutland Charter Township has been home to the annual Barry County Fair since 1990 and offers a variety of events throughout the year. The facility sits on 160 acres and has six (6) barns, three (3) outdoor arenas, a half (1/2) mile oval dirt track with a 2,500 seating capacity grand stand, a 260-site campground with electric and water hookups, and parking for up to 4,000 cars. The Expo Center also has two (2) banquet halls that have a capacity of 450 people each with a fully-licensed kitchen. The facility is available for events ranging from horse shows, to wedding receptions, to antique shows.

Public Safety Services & Facilities

Rutland Charter Township is served by the BIRCH (Baltimore, Irving, Rutland, Carlton, and Hastings Township) Fire Department based in the City of Hastings. The BIRCH Fire Department and City of Hastings Fire Department are located within the same facility and use the same firemen, although the each department owns separate equipment.

The BIRCH and City of Hastings Fire Departments employ four (4) full time firemen and the remaining twenty-one (21) firemen work on a volunteer basis. The BIRCH Fire Department owns two (2) pumper, one (1) rescue vehicle, two grass vehicles (fights grass fires), one (1) tanker, and a portion of the 100-foot aerial truck. While ownership is separate, equipment is shared in emergency circumstances.

Public safety services are provided through the Barry County Sheriff Department and the Michigan State Police, both based in the City of Hastings. Rutland Charter Township has contracted with the Barry County Sheriffs Department to provide guaranteed patrol of the Township throughout the week during specific times. The patrol officer also attends Township Board meetings to report on his activities and to answer any questions from the Township Board and/or residents. The Michigan State Police responds to emergency calls when this contract officer is not available.

CHAPTER 6. TRANSPORTATION AND PUBLIC UTILITIES

Roadways

Transportation linkages between Rutland Township, West Michigan, and the larger Midwest region are quite good. Three State highways (M-37, M-43, and M-179) converge on the community, which provides easy access to Hastings, Battle Creek, Kalamazoo, and Grand Rapids.

Three State highways (M-37, M-43, and M-79) converge on the community, which provides easy access to Hastings, Battle Creek, Kalamazoo, and Grand Rapids.

To the northwest, M-37 provides connections to the Village of Middleville, and further, to the Grand Rapids metro area, approximately 30 miles away. This is a heavily traveled commuter route that is experiencing increased traffic annually. This has led to the recently approved M-37 Corridor Study sponsored in part by the Michigan Department of Transportation. This corridor study should focus on M-37, adjacent roadways, and land uses in its proximity. It should also seek to find solutions to existing traffic problems and attempt to solve future ones. Corridor studies look at the area from a regional perspective and are not designed to focus on one particular jurisdiction. In summary, traffic, land use, and aesthetics are generally the primary focus of a corridor study. The M-37 Corridor Study is scheduled to begin in the summer of 2003.

Traveling westward approximately 15 miles on M-179, also known as Chief Noonday Trail, there is access to the limited access U.S. 131. This allows for easy access to other major federal highways including I-96 to the north and I-94 to the south. The primary route to Lansing and Kalamazoo is M-43. Both of these destinations can be reached within approximately an hour.

The Heritage Route Program and M-179 (Chief Noonday Trail)

Created by the Michigan Legislature in 1993, the Heritage Route program, sponsored by the Michigan Department of Transportation, emphasizes cooperation among local residents, their government officials, landowners, and interested groups to preserve unique scenic, historic, or recreational highways. The Heritage Route Program is a grass-roots program, requiring involvement by local residents to ensure highways and roadsides remain in their natural and unspoiled conditions. Residents have an opportunity as individuals, groups, or entire communities to become involved to preserve roadsides with scenic, historic, and/or recreational qualities¹³.

¹³ Michigan Department of Transportation Website, 2003

There are three categories of heritage routes: scenic - a state highway having outstanding natural beauty; historic - a state highway having outstanding historic buildings and resources along its length; and recreational - maintained not only to serve the recreational driver, but also to capture that recreational setting of the facility or area itself, and set the mood for the recreational experience¹⁴.

Chief Noonday Trail (M-179) is designated by the State of Michigan as a Recreational Heritage Route as it is lined with many recreational and historic sites. This area was once the hunting ground for native woodland Indians. It continues to be heavily wooded and inhabited by a variety of wildlife. A large portion of the road is bordered by state-owned land. This is the gateway to the Yankee Springs Recreational area and the Barry State Game Area. The combination of state and local facilities provide the visitor a range of recreational and historic opportunities. Activities available include camping, hiking, swimming, boating, fishing, hunting, biking, horseback riding, water and cross country skiing, berry and mushroom picking, photography, and visits to historical sites and museums.

The Benefits of Heritage Routes

According to MDOT, the following outlines illustrate the benefits to designating a Heritage Route.

Preservation Benefits

- Identify, preserve, and enhance Michigan's scenic, historic, and recreational resources.
- Provide an opportunity for growth management within a corridor by encouraging appropriate development.
- Provide an opportunity to manage the traveler/tourist impact on resources.

Economic Benefits

- Attract visitors, who bring additional revenues, enhancing economic activity in the region.
- Attract new businesses.
- Enhance existing jobs and create new jobs.
- May help a community obtain additional funding for improvement projects.

¹⁴ Michigan Department of Transportation Website, 2003.

Community Benefits

- Provide a future vision for the area.
- Enhance the local, regional, and state image on a national level.
- Identify, promote, and preserve community uniqueness thereby enhancing community appeal. Enhance the quality of life in the community.

Education Benefits

- Provide an education for future generations by example.
- Opportunity to share ideas, information, and research.
- Provide an effective hands-on teaching tool.
- Establish an education network.

All-Season Roads

According to MDOT, all of the State roads in Rutland Township function within their design standards, based on average daily traffic volumes.

All-season roads are roads that have a year-round carrying capacity for heavy trucks such as semis, tractors/trailers, and other large vehicles. It is important that commercial and industrial activities be located on these all-season roads, otherwise severe road damage may occur. In Rutland Charter Township, Airport Road from West State Road to M-37 and West State Road are currently the two all-season county roads. According to the Barry County Road Commission, efforts are being made to obtain federal funding to rehabilitate Green Street from the Hastings city limit to M-37 that would make this an additional all-season road. It is anticipated that this project would begin in the next three to five years. Other all-season roads include the M-37, M-43, and M-179.

Other planned road improvements in the Township include improving approximately .5 mile of Irving Road just south of Upton Road. Remaining County roads in the Township will continue to be regularly maintained.

Traffic volumes are an important indicator of growth and development. According to information provided by the Michigan Department of Transportation (MDOT), all of the State roads in Rutland Township function within their design standards, based on average daily traffic (ADT) volumes. The Barry County Road Commission monitors traffic volumes on County roads in the Township.

ADT is determined by placing electronic counting devices at certain locations on a road and then averaging the traffic count for a 24-hour period. According to MDOT, these traffic-counting devices are typically left in a location for many days in order to provide an adequate average number representation and the average number represents both lanes (directions) of traffic. When this average number is determined, it may be adjusted to reflect seasonal traffic fluctuations.

The list below illustrates some of the areas with the highest traffic volumes in Rutland Township.

Location	Actual Count/Year	Estimated 2003 ADT
West State Road, east of Hammond Rd	6200/2001	6349
Green Street, west of Cook Rd	5232/1997	5891
Chef Noonday Road, west of Basset Lk Rd	3467/1987	4948
Chef Noonday Road, west M-43	3444/1987	4915
Heath Rd, east of Tanner Lake Rd	5004/2001	4141
Chief Noonday, west of Irving Rd	2694/1987	3845

Traffic count figures measure the amount of traffic for a particular location and assist the County with road maintenance decisions. Its also important to realize the road limitations when considering different type of developments. Map 10 illustrates State Highways and County paved and gravel roads.

The Five-Year Road and Bridge Program published by the Michigan Department of Transportation reflects statewide road improvements for regional areas in the State. The Southwest Region¹⁵ report indicates that there is only one road improvement scheduled in Barry County, which is between Assyria Road and Francis Street on M-66 in the eastern portion of the County. No State Highway improvements are scheduled in Rutland Township at this time.

Increased volumes of traffic along arterials may be anticipated with further expansion of the housing stock both in the Township and in the surrounding areas of the County. A typical single-family residence generates about 9.55 trips per day.¹⁶ As indicated in the population data in Chapter 2, the population of the Township could increase by over

¹⁵ The MDOT Southwest Region include Rutland Township, Barry, Van Buren, Kalamazoo, Calhoun, Berrien, Cass, St. Joseph and Branch Counties.

¹⁶ Institute of Traffic Engineers, *Trip Generation*, 5th Edition, 1991.

An additional 8,547 car trips per day may be expected on local roads in the next 30 years.

2,436 by the year 2030. Based on an average household size of 2.72 persons, this results in almost 895 additional households in the Township and the immediate vicinity. At 9.55 trips per household per day, it could result in an additional generation of 8,547 car trips per day on local roads. Of course, these estimates do not take into account additional trips emanating from outside the immediate area and either passing through to destinations elsewhere or destined for local facilities.

According to the Rutland Township Community Opinion Survey that was distributed in May 2002 to all property owners in the Township, only 15% of the respondents worked in Rutland Township. Many respondents stated that they worked in Hastings, Kent County, and Kalamazoo County, illustrating that new homes in the Township would impact all local roads and state highways if these commuter trends continue.

PUBLIC TRANSIT

Public transit services are available to Rutland Township residents through Barry County Transit (BCT). According to the Michigan Department of Transportation, Barry County Transit was started in 1982 and offers a door-to-door service countywide and demand-response “quickie bus” service in the City of Hastings and the Village of Middleville. BCT currently has 14 vehicles, 11 of which are lift equipped. Services are available between 5:30 A.M. and 5:30 P.M. and there are approximately 15 employees.

AIR TRANSPORTATION

Hastings City/Barry County Airport, located in northeast Rutland Charter Township, offers general aviation services, primarily serving corporate and recreational aviation needs. The airport has one asphalt runway (3,900' x 75') and two turf runways (2,567' x 200' and 2,400' x 190'), which can accommodate twin-engine aircraft and small business jets. Special operations at the airport include parachuting and ultra light aircraft activity. The airport employs one airport manager under the authority of the airport Commission. Land use at the airport includes airplane hangers along with some commercial and light industrial activity. Adjacent land use to the airport is primarily residential.

[Map 10 Transportation](#)

Commercial passenger air service is available through the Kent County International Airport and the Kalamazoo-Battle Creek International Airport. Both facilities provide daily jet and turboprop service to regional hubs in Detroit, Chicago, Pittsburgh, Cincinnati, Indianapolis, Minneapolis, and Cleveland.

NON-MOTORIZED TRANSPORTATION

The North Country Trail

Rutland Charter Township is blessed with large amounts of open space associated with the Barry State Game Area. This area has provided for a portion of the North Country Trail (NCT), which is located just west of the Township near Peets and Bowens Mill Road. The NCT is planned to stretch through eight states, including New York, Pennsylvania, Ohio, Michigan, Wisconsin, Minnesota, and North Dakota. When completed, the trail will be over 4,000 miles long and will represent the longest trail in the country. At this time, there are no certified segments of the NCT in Rutland Township, although some certified sections exist close by (see Map 8). The North Country Trail Association, with its headquarters in Lowell, Michigan, continues to work hard to develop, maintain, and preserve and promote the Trail through a national network of volunteers, chapters, and government agencies. The Chief Noontday Chapter maintains the section of the trail from just south of Grand Rapids to Battle Creek.

The Paul Henry – Thornapple Trail



Just north of the Township at the intersection of Irving Road and the old railroad corridor is the Paul Henry – Thornapple Trail, which runs north to the Village of Middleville. From the northern border of the Township the trail is unpaved for approximately 1.5 miles and then a section approximately 3.5 miles long becomes paved and eventually ends in the Village of Middleville.

The Paul Henry – Thornapple Trail Association envisions the trail, when

completed, to be approximately 42 miles, running from Grand Rapids through Dutton, Caledonia, Middleville, Irving, Hastings, and Nashville, and terminating in the Village of Vermontville in Eaton County. Other completed sections are located in the City of Kentwood, north and south of the Village of Caledonia in Caledonia Township, and in the Village of Nashville. Other sections of the trail are in development and some are in the proposal or conceptual stage. At the time of this writing, none of the trail through Rutland Charter Township is complete.

UTILITIES

Groundwater/Wastewater

The Township primarily uses on-site individual septic systems to treat household wastewater. Proper treatment of wastewater through individual septic systems depends on the design of the on-site system and the soils in which the system is imbedded.

The Algonquin Lake area is an area of specific concern as there is a high density of homes that are all on individual septic systems. Many of the old cottages on the lake have been remodeled to allow for year-round living, which increases the amount of effluent being introduced to the soil. This has the potential of impacting the groundwater and surface water of Algonquin Lake.

Rutland Charter Township is also served with limited sewer service in the eastern portion of the Township adjacent to the City of Hastings. The limited sewer service extends from the intersection of Green Street and Cook Road and runs westward down Green Street to the M-37/M-43 intersection. This sewer extension is part of the City of Hastings sewer facility and is treated at the City of Hastings sewer plant. The primary purpose for the original sewer extension was to serve Flexfab Inc., located at Green Street and M-43/M-37. The existing agreement allows existing and new development to connect to the sewer if it is within the negotiated service area.

In 2000, the north side of Heath Road and M-43/M-37 was developed with a Wal-Mart department store. The original site was developed with an on-site individual septic system. Due to design flaws and difficult soil conditions, this system failed and was being served via pump and haul system. In order to appropriately remedy this situation, a new sewer has been extended from the City of Hastings along the railroad corridor just north of M-37 or State Road. This extension required the approval of Rutland Charter Township, the City of Hastings, and Wal-Mart Corporation. Construction commenced in the summer of 2003.

CHAPTER 7-GOALS AND OBJECTIVES.

The Rutland Charter Township Planning Commission used the Community Profile and the results of the community opinion survey and futuring workshop to develop a series of 10 broad goal statements, with each goal supported by more specific objectives. The goals are intended to describe a desirable end state or the condition of the Township about 25 years into the future. They are intentionally general, but all are felt to be attainable through concerted effort. The objective statements tend to be more specific and may be regarded as milestones in the journey to achieve the larger goal.

A. NATURAL FEATURES

THE CITIZENS OF RUTLAND CHARTER TOWNSHIP WILL CONTINUE TO ENJOY THE RURAL CHARACTER OF THE COMMUNITY AS MANIFESTED IN THE ROLLING HILLS, INLAND LAKES, AND WOODS. THE RURAL CHARACTER WILL BE DEFINED BY CLEAN LAKES, STREAMS, AND RIVERS; CLEAR AIR; NATIVE WILDLIFE; AND QUIET AND STAR-FILLED NIGHTS.

OBJECTIVES:

1. Create an inventory of the significant natural features of the Township, identifying the characteristics to be preserved, the likely threats that may impact them, and the relative priority among the various natural assets. This will include a description of important wetlands, sensitive areas, and contiguous lands for wildlife habitat.
2. Create standards in the residential and commercial zoning districts that minimize point and non-point sources of pollution into the local watershed.
3. Develop standards and policies to protect the natural environment adjacent to rivers and streams and provide optimum conditions for aquatic wildlife and stable riverbanks.
4. Coordinate a water quality study that focuses on the current conditions of the groundwater supply, identifies the potential threats to the water supply, and recommends land use decisions that will protect the aquifer for future generations.

B. HOUSING AND NEIGHBORHOODS

RUTLAND CHARTER TOWNSHIP WILL PRESERVE ITS DIVERSE RESIDENTIAL CHARACTER BY MANAGING GROWTH TO ENSURE THAT RESIDENTIAL DEVELOPMENT STRENGTHENS EXISTING NEIGHBORHOODS AND THAT NEW DEVELOPMENTS ARE ADEQUATELY CONFIGURED TO BE IN HARMONY WITH EXISTING NATURAL FEATURES AND TRANSPORTATION NETWORKS.

OBJECTIVES:

1. Identify lands targeted for housing development.
2. Amend the Zoning Ordinance to encourage high-density residential development to be located in areas where adequate infrastructure is likely to be provided in the future.
3. Retain integrity of planned density levels within the Township.
4. Adopt a water and sewer extension ordinance to permit and guide the extension of any new water and sewer service that may become available to the Township.
5. Amend the Zoning Ordinance to ensure that all new residential development is designed with safe, efficient, and attractive, motorized and non-motorized transportation networks.

C. ECONOMIC DEVELOPMENT

THE ECONOMIC HEALTH OF RUTLAND CHARTER TOWNSHIP WILL BE SECURED THROUGH GROWTH THAT IS COMPATIBLE WITH THE AREA'S NATURAL FEATURES; IS ESTHETICALLY ATTRACTIVE; IS SERVED WITH APPROPRIATE WATER, SEWER, AND TRANSPORTATION INFRASTRUCTURE; AND IS BALANCED WITH THE COMMERCIAL NEEDS OF THE REGION.

OBJECTIVES:

1. Inventory existing industrial areas and the areas that would be suitable for future industrial development.
2. Identify obstacles to appropriate and desired economic development.
3. The Township will work closely with the Hastings City/Barry County Airport Authority and will determine appropriate land uses that are compatible with the existing surrounding development. The

Township Zoning Ordinance will be amended to reflect the results of this coordinated effort.

4. Amend the Zoning Ordinance to ensure that commercial and industrial land uses will be inventoried to ensure that they are balanced with the needs of the region and will be designed to complement the existing commercial land uses in the immediate area.

D. MANAGED GROWTH AND OPPORTUNITIES

GROWTH WITHIN RUTLAND CHARTER TOWNSHIP WILL BE GUIDED IN A RATIONAL AND SEQUENTIAL MANNER AVOIDING PATTERNS OF SPRAWL AND USING INNOVATIVE AND FLEXIBLE APPROACHES TO INTEGRATE DEVELOPMENT WITH THE TOWNSHIP'S NATURAL FEATURES.

OBJECTIVES:

1. Establish incentives for development that supports the Township's goals, and establish disincentives for development that encourages sprawl.
2. Develop an inventory of in-fill development opportunities and promote their uses.
3. Implement a program of community education to inform residents of the advantages of managed growth.
4. Inventory the land uses in the surrounding jurisdictions, including residential, commercial, and industrial land uses, to promote wise land use decisions on a regional basis.

E. COMMUNITY FACILITIES AND UTILITIES

RUTLAND CHARTER TOWNSHIP WILL PROVIDE THE OPPORTUNITY FOR PUBLIC WATER AND SEWER UTILITY SERVICES TO EXISTING AND PLANNED FUTURE DEVELOPMENT IN ORDER TO GUIDE GROWTH AND DEVELOPMENT AND TO PROTECT NATURAL RESOURCES SUCH AS GROUND AND SURFACE WATER.

OBJECTIVES:

1. Extend, or create opportunities for, water and wastewater services to areas targeted for development.
2. Establish a committee to develop and research options for water and/or sewer services in the Township emphasizing the Algonquin Lake area.
3. Establish limited approaches to wastewater collection and treatment for isolated areas of development that will not exacerbate sprawl.

F. REGIONAL COOPERATION AND GOVERNANCE

RUTLAND CHARTER TOWNSHIP WILL CONTINUE TO PROVIDE LEADERSHIP IN COOPERATION WITH NEIGHBORING COMMUNITIES TO MANAGE GROWTH, SEEKING TO ESTABLISH CONSISTENT AND COMPATIBLE LAND USE POLICIES AND TO EFFECTIVELY COMMUNICATE THOSE POLICIES TO OTHER UNITS OF GOVERNMENT AND TO THE PUBLIC.

OBJECTIVES:

1. Establish and strengthen structures for regional decision-making.
2. Identify fiscal, political, and administrative obstacles to regional decision-making and implement programs to overcome them.
3. Create an informed and educated community concerning the advantages of regional cooperation.
4. Work closely with the Hastings City/Barry County Airport Authority to develop a positive and productive approach to determining the future airport facility and the land uses surrounding the airport.

G. RECREATION

THE RESIDENTS OF RUTLAND CHARTER TOWNSHIP WILL HAVE ACCESS TO A VARIETY OF RECREATIONAL OPPORTUNITIES THAT EMPHASIZE THE NATURAL FEATURES OF THE LANDSCAPE.

OBJECTIVES:

1. Create an inventory of the significant recreational assets of the Township and determine the appropriate and sustainable level of public use for each.
2. Establish and extend networks of non-motorized trails and parks to connect population centers with natural features and recreation amenities within new developments. Park and trail facilities will be located in areas less suitable for development, such as floodplain and wetland areas.
3. Establish a recreation committee to determine the recreational needs of the community, emphasizing a regional perspective.
4. Establish a system of coordination and communication between Rutland Township, surrounding jurisdictions, and Barry County to enhance the Barry County Recreation Plan.
5. Research the availability of public funding and grants for recreational purposes and the most effective way of applying for this funding.
6. Township policies will support the Thornapple River as a primary recreational amenity for the Township.

H. OPEN SPACE AND FARMLAND PRESERVATION

RUTLAND CHARTER TOWNSHIP WILL BE A COMMUNITY WITH LARGE TRACTS OF UNDEVELOPED AND UNFRAGMENTED LANDS. THESE LANDS WILL BE CHARACTERIZED BY UNIQUE NATURAL FEATURES AND ACTIVE OR FALLOW FARMLAND, WHICH WILL PRESERVE THE RURAL CHARACTER OF THE TOWNSHIP.

OBJECTIVES

1. Create an inventory of viable tracts of farmlands.

2. Establish and maintain effective communication with owners of significant tracts.
3. Foster and strengthen markets for agricultural products.
4. Establish incentives for continued agricultural operations and disincentives for development that fragments significant agricultural lands and forest habitat.
5. Explore the possibility of enacting or participating in a TDR or PDR program.

I. TRANSPORTATION

THE ROADWAY NETWORK, MASS TRANSIT SERVICES, AND AIR TRANSIT SERVICES IN RUTLAND CHARTER TOWNSHIP WILL REMAIN EFFICIENT AND SAFE, AND WILL EFFECTIVELY SERVE THE TOWNSHIP AND THE SURROUNDING REGION. ROAD NETWORKS WILL BE IMPROVED AND EXPANDED IN ACCORDANCE WITH THE TOWNSHIP'S LAND USE OBJECTIVES.

OBJECTIVES:

1. Increase Township presence and participation in roadway planning and decision-making.
2. Provide corridors for local and regional transit including roadways, non-motorized transportation, and forms of mass transit.
3. Create a forum with the other jurisdictions within Barry County and MDOT to ensure that the M-37, M-43, and M-179 corridors remain safe and efficient.
3. Develop an access management ordinance to protect the public investment in the existing transportation network through access management standards.
4. Develop a system of coordination with the Hastings City/Barry County Airport Authority on land use decisions on airport property and the surrounding region.

CHAPTER 8 - FUTURE LAND USE

The Future Land Use Plan is a compilation of descriptions, recommendations, and justification for the future use of land in Rutland Charter Township. It serves as an overall framework for the management and regulation of future development and also serves as the basis for evaluating rezoning requests.

...this Plan should provide an advisory guide for the physical conservation of certain areas and for the development of other areas into the best possible living environment...

The Township Planning Act 168 of 1959, as amended, specifically gives a Township Planning Commission the authority to prepare and officially adopt a Plan. When prepared, adopted, and maintained, this Plan should provide an advisory guide for the physical conservation of certain areas and for the development of other areas into the best possible living environment for present and future Township residents.

Due to the constant change in our socioeconomic structures and activities, the Plan must be maintained through periodic review and revision so that it reflects contemporary trends while maintaining long-range goals.

The Master Land Use Plan is general in scope. It is not, in most cases, intended to establish precise boundaries of land use or exact locations of future uses. The timing of a particular land use is dependent on a number of factors, such as availability of public utilities, provisions for adequate roadways, effect on public services, and the demand for a particular land use based on market forces. Additional factors must be considered when reviewing a request for rezoning a parcel of land.

THE RELATIONSHIP OF PLANNING TO ZONING

The relationship between land use planning and zoning is an important one. Planning is guiding land uses from a policy standpoint, while zoning is the act of regulating the use of these lands by law or ordinance. The laws of the State of Michigan require that a community engage in land use planning activities, including the preparation of a Comprehensive Plan or Master Plan, prior to the initiation of a zoning ordinance in a community.

The following narrative provides a better understanding of the terms planning and zoning.

Land Use Planning

Land use planning is the process of guiding the future growth and development of a community. Generally, the Master Plan addresses the various factors relating to the growth of a community. Through the processes of land use planning, it is intended that a community can preserve, promote, protect, and improve public health, safety and general welfare. Additional considerations include comfort, good order, appearance, convenience, law enforcement, fire protection, preventing overcrowding of land, facilitating the adequate and efficient provision of transportation, water, utilities, conservation, and utilization and protection of natural resources within the community.

Zoning

Zoning is one of the instruments, along with capital improvements programming, utility policies and the administration of local subdivision regulations, which implements the goals and policies of a Master Plan. The enactment and administration of the Zoning Ordinance are legislative and administrative processes conducted by local units of government relating to the implementation of the goals and policies of the Master Plan. Zoning Ordinances accomplish the separation of land use by creating different zoning districts within a community. Each zone district has a listing of standards that usually include setbacks, lot coverage standards, permitted and special uses, lot size requirements, and structural standards. A Zoning Ordinance also includes general requirements pertaining to parking, site plans, special processes, general land use rules, and landscaping.

PLAN ASSUMPTIONS

The goals and policies previously outlined, and an analysis of the Township's physical, social, and economic makeup, allowed the formulation of seven broad assumptions that were used in the development of a long-range development plan. These include:

1. The population of Rutland Township is expected to increase dramatically over the next two decades as the projections indicate an increase of at least 2,000 persons within this time period. This new population will create the demand for a variety of new housing options.

2. Residents indicate that preserving natural areas and open space is a priority in the Township. This includes the preference of living on a farm or rural undeveloped setting.
3. New residential and commercial development along the M-37/M-43 corridor, if not appropriately managed, will threaten the integrity of these state highways. Preserving the safety and efficiency of these major thoroughfares will be challenging as development proposals are presented.
4. The new M-6 highway, located in southern Kent County, will create new traffic patterns that allow more convenient access to Rutland Charter Township and other surrounding communities. This will attract new populations wishing to live in a rural setting while working in the Grand Rapids metro region.
5. Development options within the Township hinge on the availability of water and sewer services. At the time of this writing, sewer serves a small portion of the Township adjacent to the City of Hastings and there is no official plan to develop or extend water and sewer services in the Township. Some of the Future Land Use Designations found in this chapter have been structured, in part, to contemplate the possibility and likelihood of these services becoming available. In the event that water and/or sewer services become available in the Township, it is recommended that the Township conduct a review of the Master Plan due to the significance of such services.
6. Commercial growth needs to be confined to central locations, which provide a service center for Township residents.
7. Due to nutrient loadings, it may be necessary to develop wastewater collection and treatment facilities around Algonquin Lake in the next 20 years.

LAND USE DESIGNATIONS

The Future Land Use Plan recommends a number of different land use classifications. The following descriptions of these future land use designations explain the intended uses and location characteristics for

each classification. The location of these classifications is provided on the Future Land Use Map.

AGRICULTURAL/OPEN SPACE PRESERVATION

Description

The Township has a limited amount of high quality agricultural lands remaining in production. Agricultural lands include primarily field crops (corn, wheat, alfalfa, etc.) and animal rangeland. These areas help to give the community its rural character and the farming activity remains an important element of the local economy. The overall purpose of the Agricultural/Open Space Preservation Land Use designation is to promote the continued use of quality farmlands for agricultural purposes, minimize the potential for conflict with more intense land uses, and preserve significant open space areas.

One of the challenges to preserving farmland is reducing the potential conflict between new rural residential home sites and active agricultural practices. Depending on the intensity of the farming operation, noise, fumes, odors, and chemical applications may be part of the operation that a new resident in the area may not be accustomed to. Therefore, it is important to recognize this potential conflict and carefully consider new land applications surrounding the Agricultural/Open Space Preservation designation.

Locations

The Agricultural/Open Space Preservation Designation exists in various locations throughout the Township with the largest contiguous area being west of Algonquin Lake in the northeast area of the Township. Other areas have been designated in the northwest and south-central area of the Township.

Desired Uses and Density

The primary use in this area should be farming, including large acreage farms, smaller hobby farms, and related activities. In addition, residential development associated with farming operations should be anticipated. Other single-family housing may be permitted either in very low densities or conservation cluster design that preserves farmland and open space areas and/or natural features. The Township will work to develop mechanisms to encourage the continuation of agriculture within the community, reduce potential adjacent land use conflicts, and

recognize the legitimate interest of property owners to make economical use of their lands.

The goal of this designation is to preserve nine acres of farmland for every one acre of new non-farm residential land area created.

The density in the Agricultural Preservation designation will be one unit per ten (10) acres. The intent of this density is not necessarily to create a 10-acre minimum lot size for this area, but to encourage residential land divisions that result in the preservation of large contiguous plots of land for farming. In other words, the goal of this designation is to preserve nine acres of farmland for every one acre of new non-farm residential land area created. This may include using land areas that are not suitable for farming due to soil conditions, slope, or irregular size. In some cases, density may be increased in areas suitable for development, but may require the use of techniques such as conservation cluster designs and planned unit developments (PUD). In addition, the Township will work to develop incentives to encourage preservation of agricultural lands and natural features that may include Transferable Development Rights (TDRs) and Purchase of Development Rights (PDRs). TDRs provide additional development rights to an area if transferred from a Farmland Preservation area to a high-density area. PDRs purchase the development rights from the landowner and the land simply remains undeveloped.

Where conservation cluster developments are proposed or required, the Township will use flexible zoning techniques to implement a development that is consistent with this Plan. The overall objective will be to preserve a minimum of 50% of the agricultural lands in the proposed development. The first step would be to conduct a site analysis to identify those portions of the site that are unsuited to agricultural use by virtue of soil types, terrain, adjoining land uses, or other factors. A set of performance measures will be developed to measure possible impacts of potential development on those portions of the site with strong agricultural potential. These may include buffer distances to isolate agricultural effects from residences, road connections to minimize conflicts with farm vehicles, minimum parcel size standards for agricultural purposes, and other appropriate techniques. To the extent development can be accommodated within a portion of the site without impact on the agricultural areas, some additional density may be permitted.

New developments in this designation area should offer neighborhood amenities such as hiking paths and horse trails that interconnect with other surrounding trails or public lands.

COUNTRY RESIDENTIAL

Description

Rutland Charter Township is blessed with large tracts of land offering important wetlands, wildlife habitat, forestlands, and river valleys mixed with small farming practices. These lands are a vital part of the community's identity, and, with careful planning, they may be preserved and protected so that future generations may continue to enjoy an unspoiled natural environment. The overall purpose of the Country Residential designation is to foster the protection of these natural features with as little disturbance as possible. This designation may see low intensity development incorporating careful measures to limit the impact on natural features. Techniques such as conservation easements are encouraged. Extension of public infrastructure, such as sewer and roads, should be carefully planned to further the overall goals of this plan.

The dense forests, open pasture, and rich wetlands in the Barry State Game Area, located in the western portion of the Township provide residents and visitors excellent recreational opportunities while also providing wildlife habitat. The Country Residential designation provides a transition area between these public lands and more developed suburban areas.

Locations

This designation is located primarily in the southeast portion of the Township and dispersed throughout the privately owned lands around the Barry State Game Area in the western half of the Township.

Desired Uses and Density

Uses in the Country Residential area should be limited to forestry and farming operations mixed with single-family housing limited to very low density that preserves natural areas at a ratio of one unit per two acres. The intent of this density is not to necessarily create a minimum lot size of two acres, but to preserve two acres of contiguous natural area for every one acre developed. This density may only be reached if optimum development conditions are present, including soil conditions, transportation, and utilities. Minimum lot size requirements will depend on the type of land division proposed and the effort made to preserve natural features. Furthermore, overlay-zoning districts will be developed to identify unique resource areas that will require special protection. These may include, but are not limited to, sensitive stream

corridors, wildlife corridors, view sheds, wetlands, and recharge areas. Conservation cluster designs will also be encouraged or required to protect the identified natural assets of the Township.

Where conservation cluster developments are proposed, the Township may use its PUD mechanism to implement a development that is consistent with this Plan. The process for reviewing a conservation cluster development will be the same as in the Agricultural Preservation designation. Conservation easements should be strongly encouraged as a part of such a development to ensure that the undeveloped portions of the site remain in a natural state. The Township may encourage limited community wastewater facilities to promote more compact development and protect natural resources.

In effort to conserve the country atmosphere and open spaces within the community, certain limited commercial land uses will be allowed. These commercial uses may include equestrian-related facilities, such as stables and riding arenas, seasonal farm markets for local produce, and other open space activities that are compatible with the surrounding residential development. The desired result of allowing these uses will be the retention of large acreage parcels by allowing a landowner or proprietor to gain profit from a large acreage parcel.

New residential developments in this designation area should incorporate amenities such as trails, interconnecting trail easements, parks, open spaces, or other amenities. Developers should be encouraged to define a building envelope where residents may build, landscape, mow or improve, but allow the remainder of their lot to remain in a natural state.

MEDIUM DENSITY RESIDENTIAL

Description

The Medium Density designation anticipates high quality and aesthetic forms of development that increase density while creating a very attractive living environment for residents.

Locations

The Medium Density Residential Land Use designation is in the northeast portion of the Township north of Algonquin Lake, along the

Thornapple River, and south of Kellogg Community College where water and/or sewer services may be likely in the next 10 to 20 years.

Desired Uses and Density

The primary land use within this area will be detached single-family homes. Conservation design techniques will be encouraged, where appropriate, to establish small pockets of natural lands not suitable for development within this relatively intense development form, which may include neighborhood parks and gathering spaces. Overall residential densities of .5 to 1 unit per acre will be achieved if development conditions, such as soil makeup, topography, transportation, and availability of sewer services, are optimal. On a limited basis, higher densities may be considered where the effects of that density on natural features, infrastructure, and surrounding properties can be mitigated through the use of the planned unit development option.

Residential developments should be designed as neighborhoods and provide sidewalks, trails, parks, and other amenities that create charm and character for the neighborhood.

HIGH DENSITY RESIDENTIAL

Description

The High Density Residential designation plays an important role in achieving the Township's goals to preserve sensitive environmental areas while providing a core residential development. The primary purpose of this designation is to establish human scale, walkable neighborhoods, in close proximity to commercial and recreational services with good amenities and design that is compatible with the area's natural features. This designation also recognizes the existing high density developments located in the Township. Most of these platted lots are already developed with single-family homes.

Locations

A majority of this designation is located around Algonquin Lake, Podunk Lake, and adjacent to commercial and industrial designations along M-37/M-43 corridor. Other small pockets of this designation exist in Section 5 and 6 of the Township.

Desired Uses and Density

The primary land use in this designation will be high density single-family residential that is consistent and compatible with the existing high-density areas. The key to this designation being successful will be the availability of water and sewer services. If these services are not available, development with similar densities to the Algonquin Lake area are not recommended. It will be difficult to realize high-density development in this area if land applications for lower density development occur prior to sewer installation. Public sewer services may not become available to this area during the life of this plan, although future land use decisions should take into account that this is the area that is planned to accommodate much of the new housing demand associated with the projected population increases. Approaches to encourage high-density development in this area may include providing incentives to developers to provide public sewer and other zoning techniques that limit growth unless sewer is provided.

Conservation design techniques will be encouraged, where appropriate, to establish small pockets of natural lands within this relatively intense development form. Overall residential densities of 3 to 5 dwelling units per acre can be achieved, if public sewer service becomes available.

MANUFACTURED HOME COMMUNITY

Description

The Manufactured Home Community designation will provide for the placement of a medium to high-density mobile home park. Availability of public utilities will be required and located near other areas at higher population concentration areas. Natural vegetative buffers around the mobile home park will protect less intense land uses and will be designed to retain the significant natural features, including rolling topography and tributaries. Greater road frontage setbacks will be encouraged to keep country roads scenic.

Location

The location for this designation west of M-43 and south of M-179 in Section 14 of the Township, immediately south of the Kellogg Community College.

Desired Uses and Density

The desired use in this designation will be quality affordable housing that will offer approximately four to six units per acre depending upon the environmental conditions.

MIXED USE AREA

Description

The Mixed Use Area land use designation is designed to diversify land uses in various locations to serve a variety of residential, commercial, and industrial demands. These uses may include quality high density single-family attached and detached homes, duplexes, condominiums, and apartment complexes mixed with a variety of compatible neighborhood commercial and light industrial uses. This designation also contemplates the possibility of senior housing. Development in this designation, although possibly dense in some areas, will add to and preserve the rural character of the Township through careful preservation of significant natural features and site location. Transportation in this area will remain safe and efficient by limiting access points on to existing roads and careful design of any new roads.

In an effort to preserve the health of existing commercial and industrial areas in the Township and surrounding areas, new commercial and industrial land uses should complement uses already in existence, rather than detract from healthy urban centers. New commercial development should be scaled and located to serve the immediate residential areas of the Township. Part of this logic realizes that infill development is beneficial where infrastructure including, but not limited to, roads, water, and sewer services, exist or can be efficiently expanded. Development should occur in a rational and sequential manner, avoiding “leap frog” development that creates new infill areas.

This logic also realizes that the existing sewer agreement between Rutland Charter Township and the City of Hastings will play a key role in identifying an initial target area for dense residential, commercial, and industrial growth. Growth and development outside this target area should be limited to activities that are generally light and small scale in nature, which are not catalyst for more intense development. Other considerations for limitations of development outside the target area will include total floor area, parking requirements, impervious surface, and significant changes to the character of the immediate area.

Location

This designation is located in the northeast portion of the Township in the area of Green Street and along the M-37/M-43 Corridor from the east boundary of the Township to the eastern border of Kellogg Community College (KCC).

Desired Uses and Density

Land uses within this designation will be designed to compliment existing commercial and residential land uses and will add defining character to the intense land uses that are located along the M-37/M-43 corridor and Green Street. The area located east of Kellogg Community College (KCC) should allow a mix of residential options, with limited compatible commercial development. It is the intention that this area near KCC will eventually be developed to serve the housing needs for a limited amount of college students.

The area north and south of Green Street is intended to be a diverse and walkable area that offers excellent access to commercial and light industrial establishments. Limited mixed uses will be considered based upon compatibility of the entire development.

As with all of the proposed high density development, many of these development options will only be possible with the availability of public sewer service. If sewer service does not become available for this area, other future land uses should be considered that do not require water and/or sewer facilities and do not threaten the natural resources or rural character of the community.

Preservation of a safe and efficient M-37/43 corridor has been listed as a main objective of the Township. Ensuring safety and efficiency along this roadway should be considered for any new development, and, if possible, fixing existing problems and preparing for the future. Design standards that encourage innovative and creative development should be used to create a safe and unique environment.

Development within this designation will be designed to protect significant natural features, which include incorporating these features to retain the general character of the community while protecting natural resources for future generations. Minimizing impervious surfaces will be a priority for this area to reduce degradation of ground and surface water quality. Night sky conditions will be protected through quality design and limitation of outdoor lighting fixtures.

One of the most important features of this type of land use is the need for adequate neighborhood access. Zoning regulations should acknowledge this by providing innovative standards for parking, driveways, and pedestrian safety. Local retail land uses can be thought of as a source of identity, and are often considered landmarks in a community. Unique design features such as outdoor seating, awnings, and heightened landscape standards should be encouraged in local retail areas.

Also, since this land use area is so closely related to the residential areas they are intended to serve, some degree of conflict with adjacent residential properties is likely to occur. These conflicts can be minimized by:

- ◆ Requiring screening, green belting, and berming for properties that abut sensitive residential properties.
- ◆ Allowing limited transitional activities in the adjacent residential area where such properties directly abut the High Density Residential area. Such uses may include parking or storage activities with extensive screening and landscaping.
- ◆ Optional developments including liner buildings, reduced parking standards, and second-story residential.

LIGHT INDUSTRIAL

Description

This land use designation is intended for light industrial applications that are not likely to require public utilities and will be designed to be compatible with surrounding land uses. Facilities will be developed with appropriate utility and transportation connections and in harmony with the area's natural features.

Location

This area is located on M-37 near the Upton Road intersection in Section 9 of the Township.

Desired Uses

Industrial uses to be promoted will be those with minimal impact on the environment or on surrounding community and may include warehousing and mini-storage as well as contractor offices and yards. Specifically, the industrial land use designation has the following purposes:

- ◆ To protect residences by separating them from the effects of industrial and manufacturing activities and by preventing the use of industrial areas for new residential development; and
- ◆ To protect manufacturing and related developments against congestion by limiting the bulk of buildings in relation to the land around them and to the adjacent buildings.

Plans for industrial areas will also include provision for transportation, utilities and the use of land. Furthermore, plans will ensure adequate control of this area and buildings and the continuing management of the development through zoning regulations and private restrictions incorporated as legal requirements in deeds of sale or lease. The purpose of such provisions will be to protect the investments of developers in the district and the industries occupying improved sites.

LAKE COMMERCIAL

Description

The Lake Commercial designation is intended to serve as a limited commercial area near existing commercial development at the west end of Algonquin Lake. Development in this area will be sensitive to surrounding existing residential development and blend in with the nautical atmosphere. The land area for this designation is small and it is contemplated that this area will not expand to create excessive commercial development in a primarily residential area.

Location

The Lake Commercial District will be located at the west end of Algonquin Lake on W. State Road.

Desired Uses

The desired uses for this designation include convenience commercial developments intended to serve the local neighborhood with emphasis on serving lake residents and users. The general uses in this designation

will include bait shops, general/convenience stores, small-scale watercraft storage and sales, ice cream shops, and small unique restaurants. Watercraft sales, rentals, and uses that will result in additional watercraft traffic on Algonquin Lake are not intended for this area. Landscaping and lighting requirements will be extensive and detailed, while impervious surfaces will be kept to a minimum to protect the adjacent open water. Structures in this designation will be quaint with maximum square footages to ensure compatibility. Architectural standards, which will include specific sign requirements, will be imposed on all development within this area to ensure high quality structures and signage that adds character to the community..

AIRPORT COMMERCIAL/LIGHT INDUSTRIAL

Description

The Airport Commercial/Light Industrial future land use designation is intended to provide a mix of commercial and light industrial land uses that are primarily related to the operations at the Hastings City/Barry County Airport. These uses will be designed to be compatible with surrounding land uses, which include the airport and other residential developments in the immediate area.

Development in this area should occur in a rational and sequential manner, which should include consideration of infill areas in other locations in the Township that may be more appropriate for proposed uses. New developments should be served by water and sewer services and development should occur in a manner that considers future development of adjacent parcels and access.

Location

The Airport Commercial/Light Industrial future land use designation is located south of State Road on the east of the existing Hastings City/County Airport.

Desired Uses

Uses in this designation should be primarily focused to support operations at the airport. However, some light commercial and clean industrial uses that are not appropriate in the mixed-use area may be located in this area. The commercial and light industrial land uses should be developed in harmony with the natural features of the area,

including protecting existing forested areas, wetlands, and shorelines to preserve the rural character of the Township. Night sky conditions will be protected through the design and limitation of outdoor lighting fixtures, and any new traffic patterns will be designed to limit impacts in existing and proposed residential developments of the surrounding area. Development in this area should be encouraged to use the Planned Unit Development option so that creative and attractive developments are proposed. Development patterns should occur in a rational and sequential pattern in this area to keep the creation of infill areas to a minimum.

INSTITUTIONAL/PUBLIC

Description

This designation identifies the areas in the Township that are public lands intended for various public use; these areas include schools, public facilities, and airports.

Locations

The areas included under this designation includes the Barry County Expo Center in Section 5, the Hastings City/Barry County Airport in Section 11, Kellogg Community College (Fehsenfeld Center) in Section 14, and the Rutland Charter Township Hall in Section 14.

Desired Uses

The Hastings City/Barry County Airport

The Hastings City/Barry County Airport consists of approximately 250 acres, which includes runways, clear zones, airplane hangers, and other buildings associated with airport operations. Uses on the airport property should continue to be consistent with traditional airport uses while recognizing and limiting potential conflict with the surrounding residential uses. Future uses on airport property should be determined through cooperation of the Airport Authority and Rutland Charter Township officials. This area may also require a special zoning district that may consider specific land uses.

The Hastings City/Barry County Airport has developed a layout and approach plan that discusses appropriate land uses on and around the airport. State law mandates that this plan be incorporated in this Master Plan and it is attached to this plan as Appendix D. This plan will assist

the Township determine appropriate land uses and recognize any potential structural limitations when determining new zone districts, amendments to the Zoning Ordinance, and any variances from the Ordinance.

Kellogg Community College - Fehsenfeld Center

The Fehsenfeld Center is located on approximately 90 acres and is improved with an educational facility. Future land uses on this property should remain education oriented with the possibility of student housing in the future. Using the Planned Unit Development option may allow creative campus development.

Other uses in this designation should continue with quality management, and special attention should be given to each public use to promote the integration of each individual use.

PARKS/RECREATION/CAMPS

Description

This designation identifies areas such as public and private golf courses, organized camps, and lands under local public ownership that may serve for recreational purposes in the future.

Location

These areas are located in Sections 2, 12, 16, and 21 of the Township.

Desired Uses

The uses of this area should be reserved for recreational and open space activities. Development around these areas should be designed in harmony with the outdoor amenities and should blend well with the natural landscape.

WATERWAY PROTECTION

This designation is established in recognition of natural assets within the various watersheds in the Township. The purpose of this area is to protect the delicate ecosystems and water quality in the Township by providing a 100-foot shoreline buffer on each side of the designated streams and rivers, while permitting careful and low intensity

development, where feasible. The Waterway Protection area recognizes that the area will grow and that growth may be accommodated within the watershed, providing measures are taken to protect sensitive features.

This designation is established in recognition of natural assets within the Thornapple River Watershed. The purpose of this district is to protect the delicate ecosystems and water quality in the Thornapple River system while permitting careful and low intensity development where feasible. The Waterway Protection District recognizes that the area will grow and that growth may be accommodated within the watershed, providing measures are taken to protect sensitive features. Several general strategies are incorporated:

- ◆ Development should be encouraged in areas that least affect the integrity of the watershed's water quality;
- ◆ Development should be structured to reduce degradation of the watershed;
- ◆ Development and integration of different land use groups, as defined within this plan, should be encouraged to minimize unnecessary vehicular movements within the watershed and region;
- ◆ Development should be concentrated within defined areas to create an identity for these areas; and
- ◆ Intensive development should be confined to a prescribed area that maximizes existing investment in the infrastructure and defines appropriate growth areas.

In addition to stream protection, another objective of this land use designation is the protection of wildlife corridors. Due to the extent and quality of wetlands and streams in the Thornapple River watershed, this area hosts a diverse population of wildlife that adds to the character of the Township. The protection of wildlife corridors will support the natural feature protection goals of this Plan. The purpose of wildlife corridor protection is habitat connectivity to prevent the growth of isolated habitat populations, ultimately weakening or threatening a species in the area and negatively impacting urbanized areas.

Land uses in this area may include a combination of low intensity development intended to work in harmony with the sensitive natural features of the watershed. These uses primarily include single-family residential development.

SCENIC ROAD AREA

The Scenic Road Area is a designation that has been placed on M-179, also known as Chief Noonday Road, and the southeast portion of Cook Road in Rutland Charter Township. The purpose for this area is to protect the natural vegetation and rural character of these roads, as they have been identified as assets to the community. Chief Noonday Road is also designated as a Heritage Route by the Michigan Department of Transportation, which recognizes this route on a statewide level. Development along these roadways will be designed to protect the natural character and view sheds and enhance the rural features of the Township.

Map 11 Future Land Use

CHAPTER 9 - IMPLEMENTATION STRATEGIES

THIS MASTER PLAN RECOMMENDS THE FOLLOWING ACTIVITIES AND STRATEGIES TO ACHIEVE THE GOALS AND CARRY OUT THE OBJECTIVES OF THE PLANNING COMMISSION AND THE CITIZENS OF RUTLAND TOWNSHIP.

1. REVISE THE ZONING ORDINANCE AND MAP.

Description. The Township Zoning Ordinance is the primary regulatory mechanism for carrying out the objectives of this Plan. To bring the Ordinance into conformance with this update of the Master Plan, a significant number of changes in that Ordinance and its accompanying map are required.

The following paragraphs describe many of the changes that will be needed in the Zoning Ordinance and Map.

- a. Establish conservation overlay districts, where needed, to preserve rolling hills, inland lakes, streams, scenic road corridors, wetlands, large stands of woodlands, and native wildlife. This task may also include creating a buffer area around the Barry State Game Area. A natural features inventory (Task 2) will be an important source of information.
- b. Develop standards in the Residential, Commercial, and Industrial Zoning Districts that seek to minimize point and non-point sources of pollution into the local watershed. These standards may include the creation of a separate storm water runoff ordinance developed in cooperation with the Barry County Drain Commission.
- c. Create language and standards within the zoning ordinance that encourages high-density residential, commercial and industrial development to be located in areas where adequate public infrastructure is already available. This task should involve using the current sewer service agreement made with the City of Hastings (refer to the *Mixed Use Future Land Use Designation* for further description of this logic).
- d. Modify or create new zoning districts that reflect the goals and Future Land Use Designations in the Master Plan.
- e. Develop buffer zones adjacent to active agricultural properties to reduce the potential for conflicts between agricultural practices and residential land uses.

- f. Develop regulations for Residential Districts geared toward the creation of pedestrian friendly transportation networks.
- g. Allow commercial and industrial uses that are balanced with the economics of the region and are designed to complement the existing land uses in the immediate area.
- h. Form a committee to cooperate with the Hastings City/Barry County Airport Authority and determine land uses for the Airport that will be compatible with surrounding development. This task may include the development of an Airport Master Plan that contemplates the future land uses over the next 20 years.
- i. Develop architectural standards for multi-family housing, commercial structures, and industrial structures to ensure that these types of development are aesthetically pleasing and enhance the character of the Township.
- j. Improve the current landscaping standards to provide a more specific guide regarding the amount, placement, and type landscaping within new developments.
- k. Develop a creative list of permitted and special uses within the agricultural and rural residential zoning districts that allow limited commercial uses that may assist and promote in the preservation of large contiguous tracts of land.
- l. Review, and, if necessary, modify the Planned Unit Development option to better reflect the goals and land use designation language.
- m. Identify and rezone properties that are clearly incompatible with the future land use plan.
- n. Review the site plan requirements and make any changes necessary to better reflect the goals and objectives of the Master Plan.
- o. Create new land division procedures within each zone district to reflect the density recommendations in the Future Land Use Map and Text.
- p. Establish density bonuses for cluster developments both in residential and agricultural zones. These bonuses may enable greater than normal density in areas where significant amounts of natural area and/or farmland can be preserved through clustering. It is recognized that in such

situations, it may be necessary to combine on-site wastewater systems and possibly wells.

- q. Establish revised lot size and frontage requirements to reduce the fragmentation of farmlands. The Zoning Ordinance will need to be adjusted to permit or even require smaller single family lots if they are located within agricultural areas. The objective will be to promote clustering and minimize fragmentation of productive farmlands. Allowing cluster developments as a use by right and standard subdivision/site condominium land divisions as a special use is also an appropriate tool to reducing land and habitat fragmentation.
- r. Development proposals within the Township will be required to address specific performance standards intended to maintain and enhance the natural characteristics of the region and to maintain buffering properties. Those performance standards will include:
 1. Corridors of at least 200 feet in width for the protection of streams, rivers, and wildlife corridors.
 2. Accurate and field verified wetlands delineation and protection.
 3. Dedicated scenic easement of 100 feet from all county roads consisting of natural vegetation and non-motorized trail connections.
 4. Encourage the retention of existing natural and native vegetation, including trees and greases, which minimize the need of formal landscaping and excessive fertilization.
 5. Prohibition of high traffic generating land uses in rural areas.
 6. Strongest possible implementation assurances (e.g., performance bonds, deed restrictions, etc.)
 7. In an effort to reduce the amount of storm water runoff and maintain overall watershed health, the Township should develop standards that regulate impervious surfaces that clearly define and control lot coverage for all zone districts. The Township should also review, and, if necessary, restructure the parking lot requirements to reduce

unnecessary impervious surface. This may include regulating the maximum and minimum amount of required parking spaces.

Responsibilities. This activity should primarily be the responsibility of the Planning Commission with support from Township staff and planning consultants.

Related Goals and Objectives. The strategy supports the following goals and objectives: Goal A, Objectives 2- 4; Goal B, Objectives 2, 5; and Goal C, Objectives 3, 4.

2. INVENTORY KEY NATURAL FEATURES/PARKS/OPEN SPACE AREAS.

Description. A key aspect of the Township’s Master Plan is the preservation of the natural beauty and important features of the community. The purpose of this strategy is to prepare an inventory of important natural features and to identify the likely trends or conditions that may threaten them. This may include surface features as well as groundwater and possible surface impacts on groundwater. Using automated or manual mapping, the Township may develop a set of mapped exhibits that would serve as a guide to future land use decisions. The Michigan Natural Features Inventory will serve as a good point of beginning with field verification and evaluation to be conducted on a sequential basis as the inventory develops. In some areas, it may be appropriate to develop overlay zoning or other preservation mechanisms.

In addition, as private property owners submit site plans for consideration, independent and professionally prepared natural features determinations may be collected for incorporation into this inventory.

Also important to the residents of Rutland Township is the creation of recreational opportunities that exhibit the natural beauty and open space of the community, such as the Thornapple River. A trails network linking natural features with new and existing population centers is anticipated as a result of this strategy.

Standards for the preservation of such features will need to be developed that are effective, yet, permit reasonable use of private lands. These would be structured to permit proposed buildings to be shifted on a site to preserve identified features.

Responsibilities. This activity should primarily be the responsibility of the Planning Commission with support from Township staff and planning consultants.

Related Goals and Objectives. The strategy supports the following goals and objectives: Goal A, Objectives 1- 4 and Goal G, Objectives 1-7.

3. EXPLORE PURCHASE OR TRANSFER OF DEVELOPMENT RIGHTS.

Description. Consider the establishment of a program to purchase or transfer development rights from those farmers that would prefer to continue to farm their lands, but who can reasonably be expected to realize substantially higher returns by developing their lands. Such a program will likely require public funding, and the first step for implementation will be an effort to build public support, both for the concept and possibly supporting a share of the cost of the program. Coordination with Barry County Planning may provide additional support for this type of program as these types of programs may benefit with regional effort and perspective.

Responsibilities. This activity should primarily be the responsibility of the Planning Commission with support from the Township Board and Township planning staff and consultants.

Related Goals and Objectives. The strategy supports the following goal and objectives: Goal H, Objectives 1- 5.

4. REVIEW THE SUBDIVISION & SITE CONDO ORDINANCE.

Description. Review the Township Subdivision and Site Condominium Ordinance that specifically regulates platted subdivisions and site condominium applications. This ordinance will include requirements for open space areas, including language that may incorporate non-motorized trails requirements. Utility extension requirements may also be addressed within the subdivision control ordinance to encourage desired densities.

Responsibilities. Township staff may assume lead responsibility for this policy with assistance from the Planning Commission and adoption by the Township Board.

Related Goals and Objectives. This strategy supports the following goals and objectives: Goal B, Objectives 1- 5 and Goal D, Objective 1.

5. **IMPROVE PUBLIC UNDERSTANDING OF GROWTH MANAGEMENT.**

Description. Prepare a program of public service announcements, speaker's bureau, and school curriculum on the importance of the careful management of the Township's open lands, natural areas and farmlands, and the need to achieve a balance of land uses to support desired services. The theme may be directed at explaining that it is possible and desirable to have both development and rural character, but effective management is needed. The speaker's bureau would periodically target service clubs, neighborhood and community organizations, and other interest groups.

Part of this program may also involve a coordinated effort with other public agencies within the Township, County, and State. This may include the Barry County Drain Commission, Barry County Road Commission, Barry-Eaton Health Department, Michigan Department of Transportation, and other local agencies or organizations that may be willing to share information and create an educated citizenry.

Responsibilities. The Planning Commission and the Township Board may provide some leadership in carrying out this strategy. In addition, it may be possible to use the resources of Michigan State University Extension to conduct training workshops and similar activities.

Related Goals and Objectives. This strategy supports the following goal and objective: Goal D, Objective 3.

6. **DEVELOP A UTILITY ORDINANCE**

Policies that direct the location of public water and sanitary sewer services are an important growth control mechanism. By encouraging new development located in proximity to existing or proposed sewer and water lines, the Township will be in the strongest position to guide and direct growth in accord with the Plan.

In order for this technique to be effective, the Township must develop feasible mechanisms to manage the placement of utilities in the community. This strategy contemplates a more comprehensive approach to utility services, including a capital plan for utility extensions, a local rate structure, the phasing of utility improvements, and the policies that may be necessary to address phasing and service to outlying areas.

Responsibilities. The Township Board, being the legislative body for the community, must undertake this strategy.

Related Goals and Objectives. This strategy supports the following goal and objectives: Goal E, Objectives 1- 3.

7. **COOPERATE WITH NEIGHBORING GOVERNMENTS.**

With the county seat, the City of Hastings, nearby, it's obvious that inter-jurisdictional cooperation on certain land use issues should be manifested. In an effort to manage growth properly, the Township seeks to establish consistent goals and regulations so that the greater area develops in a compatibly efficient manner.

The Township Planning Commission is well positioned to use the Master Plan as a guide to foster intergovernmental cooperation with the City of Hastings, Barry County, and neighboring townships on a number of issues to the benefit of all communities. Of course, the implementation of any resulting programs will require support and endorsement from all parties involved. This activity should begin on completion of the Master Plan process and should, of course, be viewed as an on-going strategy.

Responsibilities. The Planning Commission will be responsible for the effort of communicating with other commissions serving adjacent communities.

Related Goals and Objectives. This strategy supports the following goal and objectives: Goal F, Objectives 1- 4.

8. **DEVELOP A NEW ACCESS MANAGEMENT OVERLAY ORDINANCE**

Traffic on M-37, M-43, and M-179 needs to be monitored more closely by the Township. The community wishes to have a larger presence in the roadway planning and decision making process. This strategy would establish a new overlay district to regulate

access to these roadways in all new developments. Its purpose will be to ensure efficient and safe movement of traffic by regulating access points and building setbacks and encouraging shared access.

At the time of this writing, the Michigan Department of Transportation (MDOT) is in the process of completing a new M-37 Corridor Study in Barry County that will outline a series of recommendations for retaining and improving safety and efficiency along this route. Parts of these recommendations include intersection modification and draft overlay district language that may be used by the County and Townships. Rutland Charter Township should consider adopting this corridor study as an appendix to the Master Plan for future reference and to recognize the importance of such a study, and use the recommendation to help formulate an overlay district.

MDOT has also produced a document entitled “*The Access Management Guidebook*,” which outlines a variety of access management examples and illustrations that can improve the safety and quality of new development on any road. This document should be used while creating any new access management overlay or new site plan standards. For example, the guidebook makes recommendations for parking lots to be interconnected to reduce unnecessary curb cuts, with the option of moving the parking lot to the rear of building.

This task should follow the completion of the Zoning Ordinance update (Strategy 1, above). The Planning Commission should work with the Barry County Road Commission and MDOT to outline appropriate alternatives to access management along these three roadways. The resulting standards may be adopted as an overlay district that would complement the underlying zoning.

Alternative forms of transportation are encouraged along these thoroughfares, including bicycling and walking opportunities. Any opportunities for trails development along these corridors should also be included.

Responsibilities. The Planning Commission will be responsible, in partnership with the Michigan Department of Transportation and the Barry County Road Commission, in conducting and/or organizing studies and preparing access management plans for these corridors. Township staff, engineers and planning consultants will also be helpful.

Related Goals and Objectives. This strategy supports the following goal and objectives: Goal I, Objectives 1- 4.

9. CONDUCT A VIEW SHED ANALYSIS

The goal of this task will be to identify, map, and develop appropriate regulatory language that encourages the protection of important view sheds in the Township. Important view sheds will include scenic vistas that are visible from public places such as county roads, state highways, trails, and other public lands. Protection of these view sheds will retain and enhance the rural character of the Township.

Responsibilities. The Planning Commission will be primarily responsible in conducting and/or organizing the view shed analysis. Township staff and planning consultants may also be used, if necessary.

Related Goals and Objectives. This strategy supports the following goal and objectives: Goal A and H.

10. CONDUCT A STUDY THAT EXPLORES SEWER FACILITY ALTERNATIVES FOR ALGONQUIN LAKE AREA.

In effort to protect the surface water quality of Algonquin Lake and the surrounding ground water resources, the Township will conduct a sewer study that explores wastewater treatment options. This study will contemplate the various methods of wastewater treatment, the location of such service, and the approximate development costs associated with each method. This study will provide the Township with a framework for evaluating all alternatives and basis for action, or no action.

Responsibilities. The Planning Commission and Township Board will be responsible for initiating the study. The study itself will need to be produced by a professional engineer(s) who is familiar with this type of analysis.

Related Goals and Objectives. This strategy supports the following goals and objectives: Goal A, B, and E, Objectives 1 through 3.

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The following sources were consulted in the preparation of this Master Plan. Where conclusions or specific data were drawn from a source, it is noted in parentheses or in footnotes within the text. In all instances, the reader is encouraged to consult the sources noted below.

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APPENDIX A – COMMUNITY OPINION SURVEY

Appendix A represents all of the information obtained through the community opinion survey process, including overall percentages, memos to the Planning Commission, and a complete listing of all of the write-in answers.

Appendix B is the Rutland Charter Township Futuring Report

Appendix C is a copy of the Barry County M-37 Corridor Study that was developed independent of the Rutland Charter Township Master Plan.

Appendix D is the Hastings City/Barry County Airport Layout and Approach Plan.