Otto Township Master Plan

March 2010
The WMSRDC is a regional council of governments representing 127 local governments in the West Michigan counties of Lake, Mason, Muskegon, Newaygo, Oceana, and northern Ottawa.

The mission of WMSRDC is to promote and foster regional development in West Michigan… through cooperation amongst local governments.

James Rynberg, Chairperson
Robert Genson, Vice-Chairperson
James Maike, Secretary

Sandeep Dey, Executive Director

Project Staff:

Erin Kuhn, Program Manager
Stephen Carlson, Associate Planner
## Table of Contents

1. **INTRODUCTION** ......................................................................................................................... 1
   - Purpose of the Plan .................................................................................................................. 1
   - Legal Basis ............................................................................................................................. 1
   - The Planning Process ............................................................................................................... 1
   - How to Use This Plan .............................................................................................................. 2
   - The Master Plan’s Relationship with Zoning .......................................................................... 2

2. **LOCATION AND HISTORY** ...................................................................................................... 3
   - Regional Location ..................................................................................................................... 3
   - Community History ................................................................................................................ 4

3. **COMMUNITY FACILITIES AND SERVICES** ........................................................................ 5
   - Local Government .................................................................................................................. 5
   - Transportation ....................................................................................................................... 6
   - Parks and Recreation ............................................................................................................. 8
   - Education ............................................................................................................................... 10
   - Fire and Police ....................................................................................................................... 11
   - Public Utilities and Infrastructure .......................................................................................... 11

4. **COMMUNITY PROFILE** ......................................................................................................... 12
   - Population Trends .................................................................................................................. 12
   - Age and Gender ...................................................................................................................... 12
   - Housing .................................................................................................................................. 13
   - Racial Composition ................................................................................................................ 14
   - Income and Poverty ................................................................................................................ 15
   - Educational Attainment ........................................................................................................ 15
   - Labor Force Composition ...................................................................................................... 15
   - Unemployment ....................................................................................................................... 16
   - Economic Outlook .................................................................................................................. 17

5. **NATURAL RESOURCES** .......................................................................................................... 18
   - Topography ............................................................................................................................ 18
   - Water Resources .................................................................................................................... 19
   - Soils ....................................................................................................................................... 23
   - Climate ................................................................................................................................... 26
   - Prime Forest Lands .................................................................................................................. 27

6. **EXISTING LAND USES AND COVER** .................................................................................... 29

7. **DEVELOPMENT STRATEGY** .................................................................................................. 31
   - Township Visions .................................................................................................................... 31
   - Goals and Objectives ............................................................................................................. 31

8. **IMPLEMENTATION** ................................................................................................................ 34
   - Future Land Use ..................................................................................................................... 34
   - Future Land Use Category Descriptions ............................................................................... 35
   - Future Land Use Map ............................................................................................................. 37
   - Planning Implementation Tools & Techniques ....................................................................... 38

9. **RECOMMENDATIONS** ............................................................................................................ 43

10. **CONCLUSION** ....................................................................................................................... 44
Chapter I: Introduction

Purpose of the Plan

The goal of any future land use plan is to combine the needs and desires of the citizenry with the land’s suitability and capability for sustaining those uses, according to the ability and desire of a unit of government to provide public services throughout its jurisdiction. Such planning will minimize the potential for land use conflicts and inappropriate uses of land, for the betterment of all residents.

Legal Basis

Although this plan is enabled by Michigan law, it does not have the force of statutory law or ordinance. Its development is guided by the Michigan Zoning Enabling Act (P.A. 33 of 2008) which states, in part, that:

A plan comprehensive enough to meet the requirements of Sec. 7(2) must begin with an analysis of the area’s existing conditions, facilities, natural resources, population characteristics, economy, environmental features, and land uses. Where appropriate, historical trends should be analyzed to assist in making predictions of future needs. It is also vital to encourage participation of a community throughout the development of a plan in order to ensure an accurate picture of the citizenry. In addition, the community should also engage the involvement of local, state, and federal organizations/agencies during the development of the plan, which will foster coordination, collaboration and potential partnerships, which will assist in the implementation of the completed master plan.

Sec. 7 (2) The general purpose of a master plan is to guide and accomplish, in the planning jurisdiction and its environs, development that satisfied all of the following criteria:
(a) Is coordinated, adjusted, harmonious, efficient, and economical.
(b) Considers the character of the planning jurisdiction and its suitability for particular uses, judged in terms of such factors as trends in land and population development.
(c) Will, in accordance with present and future needs, best promote public health, safety, morals, order, convenience, prosperity, and general welfare.
(d) Includes, among other things, promotion of or adequate provision for 1 or more of the following:
   (i) A system of transportation to lessen congestion on streets.
   (ii) Safety from fire and other dangers.
   (iii) Light and air.
   (iv) Healthful and convenient distribution of population.
   (v) Good civic design and arrangement and wise and efficient expenditure of public funds.

The Planning Process

Every effort has been made to present information that is both current and accurate. Otto Township and the West Michigan Shoreline Regional Development Commission (WMSRDC) shall not be held liable for any errors and/or omissions that are related to this plan. This plan is a general document; therefore, a thorough investigation with original research materials should be undertaken before proceeding with any specific implementation decisions. These materials might include site plans, legal reviews, etc. and would vary by situation.

Citizen input is vital in identifying and discerning the issues facing local residents, as well as identifying a plan for a community’s future. Therefore, Otto Township citizens were
invited to take part in the planning process at a public hearing held at the beginning of
the planning process. The results of this meeting are discussed under “Township
Visions” in Chapter 7 – Development Strategy. Input from this gathering strongly
influenced the Goals and Objectives, which can also be found in Chapter 7.

This master plan, especially the Goals and Objectives, should be reviewed by the
township on a regular basis. When appropriate, it should be modified to reflect changes
of a physical nature or those of general public sentiment. A master plan should always
be consistent in maintaining the community’s goals. The planning process strives to
combine the needs and desires of the citizenry with the land’s suitability and capability
for sustaining those uses. It also balances the township’s ability and desire to provide
public services throughout its jurisdiction.

How to Use This Plan

The Otto Township Master Plan is intended to function as a guide for directing and
managing development within the township boundaries. This plan is not a zoning
ordinance, which is a legally enforceable document. This plan is a policy-planning
document that provides a legal rationale for zoning. It presents a written analysis of the
township’s physical, social, and historical characteristics, as well as visions and goals for
the future of the community. In addition, implementation strategies are identified and are
intended to guide policy makers towards accomplishing the established visions and
goals of the Otto Township Master Plan. Future zoning and/or development decisions
for the township should be based on the data and information presented in this plan and
should also be consistent with the goals and objectives established during the planning
process.

The Master Plan’s Relationship with Zoning

While most understand that there is a relationship between a master (i.e. land use) plan
(with its future land use map) and a zoning ordinance (with its zoning map), it is often
misinterpreted and used inappropriately. The relationship is a very important one
because you cannot appropriately utilize one without the other. Formally defined, a
master plan is a policy document in which the zoning ordinance is a regulatory tool that
is used to implement the goals and objectives of the master plan. In other words, the master plan and
future land use map are designed to provide a glimpse of future conditions within a community, while a zoning
ordinance and map provide the means to arrive there.

The ability to change a zoning ordinance or zoning map is a municipality’s primary tool
for land use regulation and change. The master plan and future land use map are used
to guide and support that process of regulation and change. In other words, the master
plan will be utilized to help determine and support what and where zoning changes will
occur. An acceptable rezoning request should be consistent with the master plan, as it
represents the community’s desires for their future.
Chapter 2: Location and History

Regional Location

The township of Otto is located in southern Oceana County. The county is situated along the eastern shore of Lake Michigan approximately halfway between Traverse City, Michigan and the Michigan/Indiana border. The total area of the township is 35.9 square miles, of which 35.82 square miles are land and 0.08 is water.

Otto is surrounded by the following communities: Greenwood Township to the east, Newfield Township to the northeast, Ferry Township to the north; Shelby Township to the northwest; Grant Township to the west; Montague Township to the southwest (Muskegon County); Blue Lake Township to the south (Muskegon County); and Holton Township (Muskegon County) to the southeast. Table 1 identifies approximate driving distances from the Otto Township Hall to regionally significant locations.

Table 1

<table>
<thead>
<tr>
<th>City</th>
<th>Driving Distance from Otto Township</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muskegon</td>
<td>35 mi</td>
</tr>
<tr>
<td>Grand Rapids</td>
<td>65 mi</td>
</tr>
<tr>
<td>Traverse City</td>
<td>115 mi</td>
</tr>
<tr>
<td>Lansing</td>
<td>135 mi</td>
</tr>
<tr>
<td>Chicago</td>
<td>215 mi</td>
</tr>
<tr>
<td>Detroit</td>
<td>230 mi</td>
</tr>
</tbody>
</table>

*Distances approximated with Google Maps

Map 1

OCEANA COUNTY, MI

March 2009
Source: Michigan Center for Geographic Information
Community History

Much like its surrounding communities, the history and development of Otto Township is closely related to Michigan’s lumbering era. In 1860, Otto Township was organized and held its first official election. In 1868, the north half of the township was organized to form Reed Township, which later became the present-day Ferry Township. The loss of this territory left Otto relatively weak, as the remaining township land was valuable primarily for its timber. A large portion of Otto Township was initially owned by non-residents. As the twentieth century approached, the land was stripped of quality lumber, and a number of farmers moved in only to find light soils poorly suited for agriculture. Despite the conditions, some farms survived and a small number still function to this day.

Lumbering in the area left a great deal of unwanted land in its wake. The stripped land had little value outside of marginal agricultural conditions. As a result much of the land was abandoned and eventually wound up in the hands of the state and federal governments. Today, most of Otto Township lands are publicly owned, and over the last 100 years have reverted back to forests.

Today, a majority of the township is once again covered with forests. It is popular for outdoor recreation such as fishing, hunting, horseback riding, and snowmobiling. Some agriculture contributes to the local economy as well.

Otto Township Cemetery on Garfield Road
Local Government

Townships are a product of Michigan’s early history. Michigan is one of 20 states that currently have some form of township government. “General law” and “charter” are the two types of townships in Michigan. State laws authorize townships to perform a wide variety of functions and are required to perform assessment administration, tax collection, and elections administration. Townships may choose to perform numerous governmental functions, including enacting and enforcing ordinances, planning and zoning, fire and police protection, cemeteries, parks and recreation facilities and programs, and many more.

Otto Township is a general law township operating under the direction of the Otto Township Board of Trustees. The board consists of a supervisor, clerk, treasurer, and two trustees. The board members serve four-year terms as elected representatives of the citizenry. The board meets on the 2nd Thursday of each month at the township hall located at 5458 South 128th Avenue, Rothbury, Michigan 49452.

The Otto Township Board administers the annual township budget. The primary source of revenue for Michigan townships, such as Otto, is the local government’s share of the state sales tax, which has been drastically cut in recent years. Other revenue may be garnered from addition of a millage rate to local property tax fees, fees for building permits, and planning commission review fees. The 2006 Oceana County Equalization Report provides the information for Table 2 regarding the Otto Township tax base.

<table>
<thead>
<tr>
<th>Real and Personal Equalized Valuation - 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
</tr>
<tr>
<td>Commercial</td>
</tr>
<tr>
<td>Industrial</td>
</tr>
<tr>
<td>Residential</td>
</tr>
<tr>
<td>Personal</td>
</tr>
<tr>
<td><strong>Total (real &amp; personal)</strong></td>
</tr>
</tbody>
</table>

Source: 2006 Oceana County Taxable Value Report

Planning and zoning activities in Otto Township are the responsibility of a seven-member planning commission. Members of the planning commission are appointed by the Township Supervisor and approved by the Township Board. Meetings are held the first Tuesday of the month.

Although Otto Township does not prepare a written plan for capital improvements, it occasionally takes on projects, such as road improvements, when the budget allows. The township employs a part-time zoning administrator/enforcer as well as a property assessor. The township does not employ a professional township manager, and it relies on Oceana County for building, electrical, plumbing, and mechanical inspection services.
Transportation

Due to the rural nature and location of Otto Township, transportation options are limited. The primary mode of transportation is automotive. The township contains a mix of paved roads, graded gravel roads, two-tracks, and trails. Map 2 shows the township's network of roads and trails, while various other modes of transportation are discussed below.

Highways – There are no state highways located within the township. The nearest is highway M-20, located one mile north of the township's northern border. M-20 runs east/west connecting highway US-31 at its westernmost extent with the Village of Hesperia and other points eastward. The nearest US Highway is US-31, five miles to the west. The nearest US Interstate is I-96, 40 miles to the south in Muskegon.

Public Transportation – The Oceana County Council on Aging (OCCOA) provides transportation within Oceana County for all seniors through the bus transportation program. The program is available to all residents of the county; with seniors and the handicapped receiving first priority in order to receive support services, reduce isolation, and promote independent living. The OCCOA also provides volunteer driving transportation for seniors who need transportation to and from medical appointments outside of Oceana County.

Rail – There are no railroads located in Otto Township. The nearest active rails include a Michigan Shore Railroad line from Muskegon to Fremont, and a CSX Transportation line from Grand Rapids to Baldwin via Newaygo County. The Amtrak station in Grand Rapids, about 70 miles to the southeast of the township, is the nearest passenger rail service.

Air – Located about 40 miles to the south, the Muskegon County Airport is Otto’s nearest commercial airport. In addition, there are three other small airports within 25 miles of the township. The Oceana County Airport (General Utility Airport) is 8 miles to the northwest; Fremont Municipal Airport (General Utility Airport) is 19 miles to the southeast; and the White Cloud Airport (Basic Utility Airport) is 25 miles to the east.

Water – Muskegon and Ludington both have deepwater ports which are within an hour away from Otto. These harbors provide shipping and recreational boating access to Lake Michigan, the Great Lakes, and ultimately worldwide. Additionally, both ports offer car ferry services to Wisconsin. In Muskegon, the Lake Express operates from May into November. In Ludington, the Lake Michigan Carferry (also known as the SS Badger) operates daily from May through October. Other nearby harbors providing recreational access to Lake Michigan include White Lake (10 miles) and Pentwater Lake (25 miles).
Map 2

Otto Township
ROADS and TRAILS

Map created in July 2009 by:

WEST MICHIGAN SHORES
REGIONAL DEVELOPMENT COMMISSION

Data Sources:
Michigan Geographic Framework: Muskegon County (Version 8a),
Michigan Center for Geographic Information
Base Map Arc - Muskegon County, Michigan Department of Natural Resources

Note:
This map is a general representation of the roads and trails in Otto Township and is intended for general planning purposes only.
Parks and Recreation

Outdoor recreation opportunities abound in Otto Township thanks to its rural setting, natural features, and vast expanses of publicly-owned land. Approximately half of the township is comprised of forest-covered, land owned by the U.S. Forest Service (USFS), State of Michigan, or Otto Township. In addition, there are many miles of unmarked trails that crisscross these public lands. Many trails could be used for hiking, biking, snowmobiling, or horseback riding.

Map #3 Public Lands and Recreation reveals the general location of these lands, as well as water features in the township. Listed below are descriptions of many recreation opportunities in the township.

United States Forest Service (USFS) – Otto Township contains over 11,000 acres of the Manistee National Forest. This is an estimate based on information presented in the 2006 Oceana County Plat Book. Additionally the USFS operates Diamond Point, a primitive campground located on the White River featuring four campsites and carry-in watercraft access.

The Manistee National Forest was established in 1938 and covers about 540,187 acres in West Michigan. This land is not one continuous mass, but is broken by private property and towns. Much of the land had been abandoned by logging companies after being logged off in the late 19th and early 20th centuries.

State of Michigan – According to the 2006 Oceana County Plat Book, the State of Michigan holds approximately 100 acres of land within the township. This land is spread out across eight isolated parcels in the southern half of the township.

Otto Township – Otto Township does not own or operate any public parks or trails. It does, however, own an 80-acre parcel on Arthur Rd.
Education

Map 4 reveals that the school districts of Holton Public Schools, Montague Area Public Schools, and Shelby Public Schools are all situated within Otto Township. There are however, no school buildings located within Otto Township. Other nearby school districts include Hesperia Community Schools to the northeast and Whitehall District Schools to the south. Table 3 contains key statistics for the Holton, Montague, and Shelby school districts.

Table 3

<table>
<thead>
<tr>
<th>School Districts</th>
<th>Holton</th>
<th>Montague</th>
<th>Shelby</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Levels Offered</td>
<td>Pre K – 12</td>
<td>Pre K – 12</td>
<td>Pre K – 12</td>
</tr>
<tr>
<td># Students</td>
<td>1,128</td>
<td>1,572</td>
<td>1,806</td>
</tr>
<tr>
<td># Full-Time Teachers</td>
<td>74</td>
<td>88</td>
<td>110</td>
</tr>
<tr>
<td>Student/Teacher Ratio</td>
<td>15.3:1</td>
<td>17.9:1</td>
<td>16.4:1</td>
</tr>
</tbody>
</table>

Source: www.homes101.net
In addition to the K-12 school districts, there are five higher education institutions within approximately 60 miles from Otto Township. Table 4 lists these institutions, as well as the driving distances from the Otto Township Hall. The distances were calculated by Google Maps.

### Table 4

<table>
<thead>
<tr>
<th>Nearby Colleges &amp; Universities</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baker College</td>
<td>Muskegon</td>
</tr>
<tr>
<td>Muskegon Community College</td>
<td>Muskegon</td>
</tr>
<tr>
<td>West Shore Community College</td>
<td>Scottville</td>
</tr>
<tr>
<td>Ferris State University</td>
<td>Big Rapids</td>
</tr>
<tr>
<td>Grand Valley State University</td>
<td>Allendale</td>
</tr>
</tbody>
</table>

**Fire and Police**

Fire protection in Otto Township is provided by fire stations from surrounding communities Blue Lake Township, Ferry Township, and Grant Township. Otto Township pays “Stand By Fees” for fire protection, as well as any fees incurred for response/rescue runs within the township.

Law enforcement in Otto Township is provided by the Oceana County Sheriff’s Department in Hart, and Michigan State Police posts in the cities of Newaygo and Hart.

**Public Facilities and Infrastructure**

As a rural community with a low density of development, Otto Township contains little along the lines of public facilities and infrastructure. Roads are by far the most prevalent form of infrastructure in the township. Oceana County Road Commission is responsible for most of the roads in the township.

Otto Township owns and maintains the Otto Township Hall at 5458 South 128th Avenue, Rothbury, MI 49452. Otto Township also has a cemetery on Garfield Road.

A list of utilities providing services in Otto Township is given in Table 5.

### Table 5

<table>
<thead>
<tr>
<th>Private Utilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Energy</td>
</tr>
<tr>
<td>- Consumers Energy</td>
</tr>
<tr>
<td>- Great Lakes Energy</td>
</tr>
<tr>
<td>Natural Gas</td>
</tr>
<tr>
<td>- NONE</td>
</tr>
<tr>
<td>Telephone</td>
</tr>
<tr>
<td>- Verizon</td>
</tr>
<tr>
<td>Cable TV</td>
</tr>
<tr>
<td>- NONE</td>
</tr>
<tr>
<td>Internet Service</td>
</tr>
<tr>
<td>- Dial-up and satellite internet services are available</td>
</tr>
</tbody>
</table>
Chapter 4: Community Profile

Population characteristics; such as growth, age distribution, income, and educational level; and housing characteristics help community planners make predictions based on historic patterns. A picture of the future can be painted by analyzing these factors.

The following sections provide a community profile of Otto Township, utilizing figures from the 2000 U.S. Census of Population and Housing. It should be noted that many demographic statistics of Otto Township, the State of Michigan, and the United States of America have been significantly impacted by a worldwide economic recession since the 2000 Census was taken. The 2010 U.S. Census statistics will help reveal these impacts, and should be incorporated into this plan as they are released.

Population Trends

According to the 2000 Census, Otto Township contained 662 persons. This marked a 63.9% increase from the township’s population of 404 as of the 1990 Census. Comparatively, Oceana County’s population grew by 19.7% between the 1990 Census and 2000 Census.

Growth in Otto Township is expected to continue; however, the rate of growth can only be estimated. While Otto Township contains large areas of desirable, undeveloped, and natural land, it is difficult to predict future developmental pressures. Table 6 details the growth for the township since 1970 and projects growth in five-year increments from 2006 to 2030. Note that these projections are done on a county level (annual average growth for the previous ten years applied to current population) and then aggregated to the municipal level according to the municipality’s most recent share of county population. They do not take into account variations in development trends between individual municipalities.

Table 6

<table>
<thead>
<tr>
<th></th>
<th>Actual Census Figures</th>
<th>2006 Estimate</th>
<th>Forecasted Population*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Otto Township</td>
<td>196</td>
<td>426</td>
<td>404</td>
</tr>
<tr>
<td>Oceana County</td>
<td>17,984</td>
<td>22,002</td>
<td>22,454</td>
</tr>
</tbody>
</table>

Source: U.S Bureau of the Census

*Projections calculated by WMSRDC

Between 1990 and 2000, population of Otto Township increased by 63.9 percent.

Age and Gender

According to the 2000 Census, Otto Township hosts a slightly younger population than the entire population of Oceana County. Otto Township has a median age of 35.1, while the county’s median age is 36.9. Table 7 illustrates that the distributions of age within Otto Township greatly resemble those of Oceana County. The largest combined age groups in Otto Township include the ages 25-54 (45% of the population) and children and teenagers (31.8%). This demonstrates a healthy population distribution. The smallest age groups in Otto are ages 75 and up (2.5%), followed by the group of ages 20-24 (4.2%).
Table 8 shows that Otto Township’s population is comprised of more males (52.7%) than females (47.3%). The gender distribution of Oceana County is more level, with 50.4% of the population being male and 49.6% female.

Table 7

<table>
<thead>
<tr>
<th>Age</th>
<th>Otto Township</th>
<th>Oceana County</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>number of persons</td>
<td>percent of persons</td>
</tr>
<tr>
<td>0-4</td>
<td>44</td>
<td>6.6%</td>
</tr>
<tr>
<td>5-9</td>
<td>63</td>
<td>9.5%</td>
</tr>
<tr>
<td>10-14</td>
<td>49</td>
<td>7.4%</td>
</tr>
<tr>
<td>15-19</td>
<td>55</td>
<td>8.3%</td>
</tr>
<tr>
<td>20-24</td>
<td>28</td>
<td>4.2%</td>
</tr>
<tr>
<td>25-34</td>
<td>91</td>
<td>13.7%</td>
</tr>
<tr>
<td>35-44</td>
<td>110</td>
<td>16.6%</td>
</tr>
<tr>
<td>45-54</td>
<td>97</td>
<td>14.7%</td>
</tr>
<tr>
<td>55-59</td>
<td>50</td>
<td>7.6%</td>
</tr>
<tr>
<td>60-64</td>
<td>29</td>
<td>4.4%</td>
</tr>
<tr>
<td>65-74</td>
<td>30</td>
<td>4.5%</td>
</tr>
<tr>
<td>75-84</td>
<td>15</td>
<td>2.3%</td>
</tr>
<tr>
<td>85+</td>
<td>1</td>
<td>0.2%</td>
</tr>
<tr>
<td>Total</td>
<td>662</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: 2000 U.S Bureau of the Census

Table 8

<table>
<thead>
<tr>
<th>Gender Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Otto Township</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
</tbody>
</table>

Source: 2000 U.S Bureau of the Census

Housing

Housing and significant changes in an area’s housing stock have a direct impact on planning decisions. It is important to note that changing trends related to housing stock are often the first indications that important changes are taking place with the population base and land use. It is also important to note that a vital aspect of housing stock is the presence of a variety of house choices (i.e. traditional single-family homes, duplexes, and manufactured homes). Various housing types allow for affordable housing opportunities for all segments of the population.

The housing characteristics presented herein for Otto Township are based on the 2000 U.S. Census of Population and Housing summary data and, therefore, do not reflect changes that have occurred since 2000. According to demographic information, the total number of housing units in the township increased from 182 to 302 (65.9%) between 1990 and 2000. Of the housing units present in 2000, about 37 percent were mobile homes.

The decades from 1970-1979 and 1990-2000 saw the greatest increases in the number of housing units in the development of Otto Township. As of the 2000 Census, seven out
of ten housing units had been built between 1970 and 2000, and about 30% were built between 1990 and 2000. The coming decades promise a continued expansion of the housing stock as well. With the afore-mentioned increase in population expected, the township must remain proactive in addressing housing issues in order to preserve its rural character as well as to protect the environment. All-season emergency services access must also be taken into consideration in developing areas of the township.

According to Table 9, housing units in Otto Township have a much higher rate of occupancy (81.8%) than the entire county (65.1%) and, consequently, a lower number of vacancies. Additionally, about 13 percent of the housing units in the township are for seasonal, recreational or occasional use.

### Table 9

<table>
<thead>
<tr>
<th></th>
<th>Total Units</th>
<th>Occupied</th>
<th>Vacant</th>
<th>Vacant for seasonal, recreational or occasional use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Otto Township</td>
<td>302</td>
<td>247 (81.8%)</td>
<td>55 (18.2%)</td>
<td>39 (12.9%)</td>
</tr>
<tr>
<td>Oceana County</td>
<td>15,009</td>
<td>9,778 (65.1%)</td>
<td>5,226 (34.9%)</td>
<td>4,155 (27.7%)</td>
</tr>
</tbody>
</table>

Source: 2000 U.S. Bureau of the Census

### Racial Composition

Table 10 illustrates the racial distribution within Otto Township and Oceana County. As noted in the table, the majority (97.9%) of the township residents have a white ethnic background. This concentration is more than Oceana County, which shows 90.4%.

### Table 10

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Otto Township</th>
<th>Oceana County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>662</td>
<td>26,873</td>
</tr>
<tr>
<td>White</td>
<td>648 (98.7%)</td>
<td>24,284 (90.4%)</td>
</tr>
<tr>
<td>Black or African American</td>
<td>0 (0.0%)</td>
<td>86 (0.3%)</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>1 (0.2%)</td>
<td>279 (1.0%)</td>
</tr>
<tr>
<td>Asian</td>
<td>1 (0.2%)</td>
<td>67 (0.2%)</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>0 (0.0%)</td>
<td>8 (0.01%)</td>
</tr>
<tr>
<td>Other Race</td>
<td>10 (1.5%)</td>
<td>1,640 (6.1%)</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>2 (0.3%)</td>
<td>509 (1.9%)</td>
</tr>
<tr>
<td>Hispanic or Latino (of any race)*</td>
<td>33 (5.0%)</td>
<td>3,119 (11.6%)</td>
</tr>
</tbody>
</table>

*Hispanic origin is included in all races, therefore, totals will not equal the Total Population section

Source: 2000 U.S. Bureau of the Census
**Income and Poverty**

Table 11 identifies the gross annual income in Otto Township and Oceana County, while Table 12 shows their distribution. These figures show that the township and the county have very similar income distributions.

Table 13 identifies poverty statistics for Otto Township and Oceana County, according to the U.S. Census. Of the 662 residents in Otto, 41 persons were listed as being below the poverty level. This is equal to 5.8% of the population and is well below the county poverty rate of 14.7%.

**Educational Attainment**

Table 14 details levels of educational attainment for Otto Township and Oceana County residents 25 years of age and over. It should be noted that just under one-third (31.8%) of the township’s population has had some college or obtained higher education degrees, which is less than the county’s level of 40.3%.

**Labor Force Composition**

The population of residents 16 years of age and over in Otto Township totaled 535 persons in 2000. Of those individuals, 300 were employed. About 63 percent of laborers work in one of the three main industry sectors of Manufacturing (39.7%), Retail Trade (12.0%), and Education, Health and Social Services (11.3%). Tables 15 and 16 give additional employment distribution and labor force statistics for Otto Township and Oceana County.
Table 15

<table>
<thead>
<tr>
<th>Industry Employment:</th>
<th>Otto Township</th>
<th>Oceana County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ages 16 Years and Over</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Employed</td>
<td>535</td>
<td>11,367</td>
</tr>
<tr>
<td>Agriculture, forestry, fishing, hunting, and mining</td>
<td>7 (2.3%)</td>
<td>756 (6.7%)</td>
</tr>
<tr>
<td>Construction</td>
<td>27 (9.0%)</td>
<td>968 (8.5%)</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>119 (39.7%)</td>
<td>3,103 (27.3%)</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>11 (3.7%)</td>
<td>256 (2.3%)</td>
</tr>
<tr>
<td>Retail trade</td>
<td>36 (12.0%)</td>
<td>1,120 (18.3%)</td>
</tr>
<tr>
<td>Transportation and warehousing, and utilities</td>
<td>11 (3.7%)</td>
<td>374 (3.3%)</td>
</tr>
<tr>
<td>Information</td>
<td>0 (0.0%)</td>
<td>111 (1.0%)</td>
</tr>
<tr>
<td>Finance, insurance, real estate, rental and leasing</td>
<td>4 (1.3%)</td>
<td>327 (2.9%)</td>
</tr>
<tr>
<td>Professional, scientific, management, administrative, and waste management services</td>
<td>8 (2.7%)</td>
<td>428 (3.8%)</td>
</tr>
<tr>
<td>Education, health and social services</td>
<td>34 (11.3%)</td>
<td>2,077 (18.3%)</td>
</tr>
<tr>
<td>Arts, entertainment, recreation, accommodation and food services</td>
<td>15 (5.0%)</td>
<td>827 (7.3%)</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>13 (4.3%)</td>
<td>548 (4.8%)</td>
</tr>
<tr>
<td>Public administration</td>
<td>15 (5.0%)</td>
<td>472 (4.2%)</td>
</tr>
</tbody>
</table>

Source: 2000 U.S. Bureau of the Census

Table 16

<table>
<thead>
<tr>
<th>Labor Force Composition:</th>
<th>Otto Township</th>
<th>Oceana County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ages 16 and Over</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Employed</td>
<td>535</td>
<td>11,367</td>
</tr>
<tr>
<td>Private wage and salary workers</td>
<td>257 (85.7%)</td>
<td>8,856 (77.9%)</td>
</tr>
<tr>
<td>Government workers</td>
<td>31 (10.3%)</td>
<td>1,493 (13.1%)</td>
</tr>
<tr>
<td>Self-employed workers</td>
<td>12 (4.0%)</td>
<td>969 (8.5%)</td>
</tr>
<tr>
<td>Unpaid family workers</td>
<td>0 (0.0%)</td>
<td>49 (0.4%)</td>
</tr>
</tbody>
</table>

Source: 2000 U.S. Bureau of the Census

Unemployment

Table 17 identifies the total labor force and gives information on employment and unemployment for Otto Township, Oceana County, and the State of Michigan in 2000. The township’s unemployment rate (6.3% of the civilian labor force) was less than the county’s (7.9%), but was higher than the state’s (5.8%). It was also higher than the national unemployment rate for 2006 (4.6%). Between 2000 and 2008, unemployment rates increased to 10.8% in Oceana County (MI Dept. of Energy, Labor, and Economic Growth), 8.4% in Michigan (MI DELEG), and 5.8% across the United States (US Bureau of Labor Statistics). Unemployment figures for Otto Township in 2008 are not available.

Table 17

<table>
<thead>
<tr>
<th>Civilian Labor Force</th>
<th>Otto Township</th>
<th>Oceana County</th>
<th>Michigan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civilian Labor Force</td>
<td>320</td>
<td>12,348</td>
<td>4,922,453</td>
</tr>
<tr>
<td>Employed</td>
<td>300 (93.8%)</td>
<td>11,367 (92.1%)</td>
<td>4,637,461 (94.2%)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>20 (6.3%)</td>
<td>981 (7.9%)</td>
<td>284,992 (5.8%)</td>
</tr>
</tbody>
</table>

Source: 2000 U.S. Bureau of the Census
Economic Outlook

In 2000, 282 of Otto Township’s 300 employed citizens commuted to work with an average travel time of 30.1 minutes. The 1990 Census revealed 161 commuters with an average travel time of 28.8 minutes. Between 1990 and 2000, the number of commuters increased 75.2 percent and their average travel time increased 4.4 percent. These statistics not only suggest that a significant portion of the population travels outside the township to work, but also reflect Otto’s status as a growing, “bedroom community”.

In light of the information presented above, it may be useful to look at recent changes in the makeup of employment for the surrounding communities. This will allow a view into the economic course of the region around Otto Township. Table 18 contains employment estimates for the seven largest employment sectors of Oceana, Newaygo and Muskegon counties. It reveals that, although Oceana increased manufacturing jobs by over 50% between 2004 and 2006, the county still lost about 204 (2.2%) jobs overall. This trend is unique to Oceana, however, as Muskegon and Newaygo both experienced increases in total employment despite losing manufacturing jobs.

Table 18

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oceana</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>1,198</td>
</tr>
<tr>
<td>Construction</td>
<td>914</td>
</tr>
<tr>
<td>Government and government</td>
<td>1,638</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>553</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1,433</td>
</tr>
<tr>
<td>Other services, except public</td>
<td>618</td>
</tr>
<tr>
<td>Retail trade</td>
<td>1,115</td>
</tr>
<tr>
<td>Total Employment*</td>
<td>11,085</td>
</tr>
</tbody>
</table>

RED figures show employment loss; GREEN figures show employment gain.

* includes other sectors not presented above, some for which specific data is not available

Source: Regional Economic Information System
Chapter 5: Natural Resources

Otto Township contains an abundance of undeveloped, natural areas that define its rural character. The following sections describe those resources.

Topography

The varied topographic features found across Michigan, including Oceana County, owe their existence to the activity of glaciers. The formation, movement, and recession of glaciers shaped the landscape by moving soil, cutting rivers and depositing lakes.

The terrain of Otto Township varies from rolling to level. The highest elevation, about 820 feet above sea level, is located in northwest Otto. The lowest point, about 600 feet above sea level, is located at the White River where it exits the township at the township’s southern boundary. All watercourses in Otto Township flow towards the White River, which in turn flows towards White Lake and Lake Michigan. Map 5 shows Otto Township’s place within the White River watershed, as well as other communities in Muskegon, Newaygo, and Oceana counties that are situated within the White River watershed.
Water Resources

Groundwater, surface water, and wetlands located within Otto Township are valuable assets. Essential to the character of the township, they provide diverse natural habitats, recreation opportunities, and desirable places to live. These attributes must be protected in order to ensure future prosperity. Notable water features within the township include: the North Branch White River, South Branch White River, Bear Creek, Knutson Creek, Sand Creek, Blackmer Lake, Fogg Lake, and Gillan Lake. These features are labeled on Map 6 – Water and Wetland Features.

All water features must be properly managed and protected to prevent detriment to the environment. Eutrophication, erosion, and polluted runoff are just a few examples of how water systems can be degraded. Potential sources for polluted runoff in Otto Township include roads, homes (including lawn care measures, sewage, etc.), and erosion. Increased siltation and eutrophication are examples of adverse effects that could result from contaminated runoff or erosion.

At this point, it is important to acknowledge that natural features such as creeks, rivers, and forests do not abide by political boundaries. Otto Township is situated in the heart of the White River watershed, which drains 344,166 acres of land, contains 253 streams, and is present in 36 townships and villages in West Michigan. Decisions made by the township may have an affect on other communities within the watershed, and vice versa. Therefore, planning and protection of natural features may occasionally require a multi-jurisdictional approach.

Another important surface water resource is wetland. Commonly known as marshes or swamps, wetlands are lands that are wet for most of the year. Wetlands have the capacity to perform many functions such as, provide important and diverse habitats, protect from flooding, and filter water runoff. This filtering process includes removing many toxic elements from precipitation or surface water as it seeps into the ground and eventually into the groundwater supply. Wetlands in Otto...
Township are commonly found adjacent to surface water features. Other wetlands are located in level, forested areas in the center of the township near Blackmer and Gillan Lakes, as well as in the northeast portion of the township.

Floods are caused when the ground becomes saturated beyond its capacity to absorb any more water or when precipitation is so intense that the ground cannot absorb it quickly enough. The less permeable the soil and the higher the water table, the more susceptible an area is to flooding. Flooding often transmits contaminants from streets, parking lots, soils, etc., into surface water sources.

Although flooding is possible virtually anywhere, it is most likely to occur in low-lying areas and near bodies of water. In Otto Township, floodplains along the White River and its tributaries are subject to occasional flooding. This, however, does not pose a significant threat to Otto Township because lands along these areas are largely undeveloped. Map 7 – Flooding Soils shows areas of the township identified by the Soil Survey of Oceana County (1992) as having flooding characteristics.
Soils

Soil is a primary factor in determining where future development will occur. It is especially important in areas such as Otto Township where there are no public water and sewer services available. The suitability of soils for developments such as roads, foundations, wells, and septic systems is important to consider when determining their location and intensity.

Soil surveys are a primary source of soil information. Soils in Otto Township are described in the Soil Survey of Oceana County (USDA Soil Conservation Service, 1992). It provides information that may assist in determining soil characteristics such as the extent and location of flood-prone areas, access to aquifers, erosion and sedimentation potential, ability to accommodate site septic tanks and absorption fields, and the limitations for construction. Maps are an important component of the soil survey and are critical to the planning process because they can geographically depict areas that have development limitations based on the soil(s) present. Map 8 - Soil Limitations for Dwellings With and Without Basements provides an example of the detailed information available from the survey.

General Soils

Map 8 - General Soils shows soil associations in Otto Township. Each association is a unique landscape with a distinctive pattern of soils, relief, and drainage. The general soils map can be used to compare the suitability of large areas for general land uses such as building site development, farming, recreational development, and other uses. This may be helpful for broad land use planning, however is not suitable for selecting a site; such as the location of a farm, road, or other development; for a specific use because of its small scale.

Common soil associations in Otto Township that are typically wooded are the “Typic Udipsamments-Entic Haplargods, Sandy Association” and the “Medisopristes, euic-Typic Haplaquolls, sandy over loamy-Mollic Psammaquents Association.” Next, soils of the “Plainfield-Coloma-Grattan Association” and the “Grattan-Covert-Granby Association” can be found in the north and northwest sections of the township. These areas are mostly wooded. Finally, a small portion of the township consists of the less sloping soils in the Benona-Spinks-Grattan Association, which are suited to building site development and fairly well suited to cropland. Detailed descriptions of the soil associations illustrated on Map 7 have been included in the Appendix.
Septic Suitability
Soil is not considered to be suitable for residential septic tank absorption if it has excessively high or low permeability, if the slope is excessive, or if the water table is too close to the surface. The permeability and coarseness of soil has a direct impact on its ability to properly filter toxins (i.e. septic material) as they pass through the soil. Much of Otto Township is covered by highly permeable, sandy soils. This is cause for concern because of their excessive percolation and poor filtration capabilities subsequently lead to a potential for groundwater pollution.

Soils with a high flood frequency are also not generally considered to be adequate locations for septic systems. As the ground becomes saturated and floods, the toxins may be removed from septic tanks and flow into groundwater or surface water supplies. Quite often the waste deposited in septic systems is much more hazardous than human waste alone because materials such as household cleaners, bacteria, and other toxic nuisances may be present as well. Frequently flooded soils are widely scattered throughout the township and most commonly located near surface water features (See Map 7 – Flooding Soils).

In order to reduce the amount of pollution released from septic tanks, citizens should refrain from the disposal of medicines and household chemicals, such as ammonia, bleach or other hazardous substances, into the septic system. Septic tank maintenance should also be addressed on a regular schedule by adding necessary chemicals, cleaning, and using only to capacity. Additionally, a septic system should be emptied at a minimum of once every seven years but preferably every other year.

Soil Erosion
Soil information presented earlier in this section has indicated the presence of sandy soils, which tend to be susceptible to erosion. However, the prevalence of forests and other natural land cover in the township greatly reduces the erosion potential. Natural cover acts as a barrier to erosion in that trees, grasses, forest litter and stones hold the soil in place, even during torrential rainfall. Removal of this cover could expose the soil to its erosion potential. In addition, changes in development patterns often create substantial changes in the ratio of permeable surfaces in an area. Even in a heavily forested area, addition of asphalt, pavement, and roofs can make a substantial difference.

Population trends in Otto Township between 1990 and 2006 reveal significant increases in population (see Chapter 4: Community Profile for US Census statistics). If recent trends continue into the future, developments will need to be monitored to mitigate effects on the land with respect to erosion. Table 20 highlights important considerations for development with respect to erosion.

<table>
<thead>
<tr>
<th>Table 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Erosion Characteristics</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
</tbody>
</table>
Map 9

Otto Township
SOIL LIMITATIONS for DWELLINGS WITH and WITHOUT BASEMENTS

Slight - soil properties and site features are generally favorable and limitations are minor and easily overcome.

Moderate - soil properties or site features are not favorable and special planning, design, and maintenance is needed to overcome or minimize the limitations.

Severe - soil properties or site features are so unfavorable or so difficult to overcome that special design, significant increases in construction costs, and possibly increased maintenance are required.

Map created in July 2009 by:

DATA SOURCES:
Michigan Center for Geographic Information; Soil Survey of Oceana County (USGS)

Note:
This map is intended for general planning purposes only.
Climate

Otto Township is located in an area of the United States which experiences unique and diverse climatic conditions due to its proximity to Lake Michigan. Oceana County is classified as having “quasi-marine” (when westerly winds pass over Lake Michigan) and “continental” climates (when the winds become easterly or southeasterly and pass over a large expanse of land).

Because Otto Township is located in east-central Oceana County, inland from Lake Michigan, its climate is more “continental” than the western areas of the county. This translates into slightly warmer maximum summer temperatures and slightly cooler winter minimum temperatures. Table 21 shows notable climatic data from the period 1951-1980, including temperature and precipitation averages and records for the Village of Hesperia, which is the nearest NOAA weather station to Otto Township.

Table 20

<table>
<thead>
<tr>
<th>Month</th>
<th>Average Daily Temperatures (Fahrenheit)</th>
<th>Average Monthly Precipitation (Inches)</th>
<th>Snowfall maximum month amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>maximum</td>
<td>minimum</td>
<td>mean</td>
</tr>
<tr>
<td>January</td>
<td>28.6</td>
<td>12.7</td>
<td>20.6</td>
</tr>
<tr>
<td>February</td>
<td>31.6</td>
<td>12.5</td>
<td>22.0</td>
</tr>
<tr>
<td>March</td>
<td>41.2</td>
<td>21.3</td>
<td>31.2</td>
</tr>
<tr>
<td>April</td>
<td>56.4</td>
<td>32.9</td>
<td>44.6</td>
</tr>
<tr>
<td>May</td>
<td>69.0</td>
<td>42.5</td>
<td>55.7</td>
</tr>
<tr>
<td>June</td>
<td>78.2</td>
<td>51.8</td>
<td>65.0</td>
</tr>
<tr>
<td>July</td>
<td>82.1</td>
<td>56.1</td>
<td>69.1</td>
</tr>
<tr>
<td>August</td>
<td>80.1</td>
<td>54.7</td>
<td>67.4</td>
</tr>
<tr>
<td>September</td>
<td>72.2</td>
<td>47.6</td>
<td>59.9</td>
</tr>
<tr>
<td>October</td>
<td>60.7</td>
<td>38.3</td>
<td>49.5</td>
</tr>
<tr>
<td>November</td>
<td>45.7</td>
<td>29.0</td>
<td>37.3</td>
</tr>
<tr>
<td>December</td>
<td>33.4</td>
<td>18.6</td>
<td>26.0</td>
</tr>
<tr>
<td>Annual Averages</td>
<td>56.6</td>
<td>34.8</td>
<td>45.7</td>
</tr>
</tbody>
</table>


The proximity of Lake Michigan (about 10-15 miles to the west of Otto Township) causes a meteorological phenomenon called lake effect snow. During the winter months, the relatively warm waters of the lake provide moisture for weather fronts as they cross over from Wisconsin. When these fronts reach the cooler land of Michigan, the moisture condenses and falls as snow. Lake effect snows can be serious and hazardous weather events; however, their actual duration and severity can vary greatly. Winter weather, often in the form of lake effect snow, will annually affect Otto Township through treacherous driving conditions, cost of snow removal, and infrastructure failures. Rural and secondary roads often experience the worst driving conditions during the winter because they are the last to be cleared and salted.
In addition to severe winter weather, Otto Township may experience severe thunderstorms and high wind. According to FEMA’s “Wind Zones in the United States” map, Otto is located in the Zone IV, where winds of up to 250 miles per hour are possible. These winds may be produced by strong weather systems, tornadoes, or thunderstorms. The NOAA estimates that the township should experience around 30-40 thunderstorm days per year. Thunderstorms are most likely to occur during the warm months between spring and fall, but may occur any time of the year.

Prime Forest Lands

The vast majority of land in Otto Township is covered by natural vegetation. Forested areas are common across most of the township, while agricultural activities are more common in the northwestern corner. More than three-quarters of the township lies within the boundary of the Manistee-Huron National Forest. According to the 2006 Plat Book of Oceana County, published by Farm & Home Publishers, about 2,573 acres of land belong to the Manistee-Huron National Forest, 165 acres belong to the National Forest Service, and 67 acres are owned by the Michigan Department of Natural Resources.

The picture to the right is an example of the rows of pine trees that were planted in the years that followed lumbering activities in
the late 1800’s. As mentioned earlier in this document, the West Michigan’s Lumber Era took a significant toll on forests in the area, eliminating a great deal of primary, old-growth forests. Existing today are secondary forests which emerged over the past century. Some of the forests grew back naturally, while others were planted by the Civilian Conservation Corps (CCC) between 1933 and 1942. The CCC was a federal program instituted by President Franklin D. Roosevelt during the Great Depression. In Michigan, the CCC planted 484 million trees in addition to its other accomplishments such as fighting forest fires and construction of roads and bridges.

Given the vast amount of undeveloped and forested land, Otto Township faces an increased threat of wildfire. Most Michigan wildfires occur close to where people live and recreate, which puts people, property, and the environment at risk. Development in and around rural forested areas often increases the potential for loss of life and property from wildfires, since most are caused by human activities such as outdoor burning, and can also create fire-fighting challenges.

Residents should be encouraged to take actions to properly protect their property. For example, residents can create “defensible space” around their homes. This entails clearing a radius of about 30 feet of brush and any other fire fuel to prevent fire damage to structures and private property. Common development practices include setting structures back from slopes (slopes allow fires to spread faster than flat terrain) and assuring accessibility and adequate water supply for fire-fighters.
Chapter 6: Existing Land Uses and Cover

Despite the fact that the Otto Township population increased by about 85% between 1990 and 2006, the character of Otto Township has remained rural. There have been no major changes or disruptions to the township’s land uses or land cover. Otto Township’s rural nature is reflected by its land use and land cover, which is illustrated on Map 10 – Land Cover circa 1992. Although the land cover data presented in this section is rather dated, it remains useful for identifying land cover patterns in the township.

Otto Township does not contain any significant concentrations of development. With only a few exceptions, developments in the township are primarily residential. Map 10 reveals that the vast majority of Otto Township is either forested or covered with vegetation. Wetlands, the second most common land cover in the township, can be found scattered throughout the landscape, especially near surface water features. Agriculture (planted and/or cultivated areas) is somewhat common in the northern and northwestern areas of the township. Table 21 gives the percentage breakdown of land covers shown on Map 10.

Map 10 – Land Cover circa 1992, was derived from the National Land Cover Dataset (NLCD) published by the United States Geological Survey (USGS) in 1999. The data represents conditions in the early 1990’s and is displayed on the map by 30-meter pixel detail. The USGS states that this data is most accurate when viewed at the state or multi-state level (rather than the township level). Therefore, it is important to note that this map is very general and should not be consulted for site-specific land cover analysis. Definitions of the NLCD Land Cover Classifications are listed in Table 22.

<table>
<thead>
<tr>
<th>Land Cover Category</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development</td>
<td>0.19%</td>
</tr>
<tr>
<td>Planted/Cultivated</td>
<td>7.00%</td>
</tr>
<tr>
<td>Herbaceous Upland</td>
<td>8.61%</td>
</tr>
<tr>
<td>Shrubland</td>
<td>4.00%</td>
</tr>
<tr>
<td>Forest</td>
<td>69.07%</td>
</tr>
<tr>
<td>Wetland</td>
<td>10.88%</td>
</tr>
<tr>
<td>Water</td>
<td>0.25%</td>
</tr>
</tbody>
</table>

Table 22

<table>
<thead>
<tr>
<th>NLCD Land Cover Classification Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed</td>
</tr>
<tr>
<td>Areas characterized by high percentage (approximately 30% or greater) of constructed material (e.g. asphalt,</td>
</tr>
<tr>
<td>concrete, buildings, etc.).</td>
</tr>
<tr>
<td>Herbaceous Upland</td>
</tr>
<tr>
<td>Upland areas characterized by natural or semi-natural herbaceous vegetation; herbaceous vegetation accounts</td>
</tr>
<tr>
<td>for 75-100 percent of the cover.</td>
</tr>
<tr>
<td>Herbaceous Planted/Cultivated</td>
</tr>
<tr>
<td>Areas characterized by herbaceous vegetation that has been planted or is intensively managed for the</td>
</tr>
<tr>
<td>production of food, feed, or fiber; or is maintained in developed settings for specific purposes. Herbaceous</td>
</tr>
<tr>
<td>vegetation accounts for 75-100 percent of the cover.</td>
</tr>
<tr>
<td>Shrubland</td>
</tr>
<tr>
<td>Areas characterized by natural or semi-natural woody vegetation with aerial stems, generally less than 6</td>
</tr>
<tr>
<td>meters tall with individuals or clumps not touching to interlocking. Both evergreen and deciduous species of</td>
</tr>
<tr>
<td>true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions.</td>
</tr>
<tr>
<td>Vegetated/ Natural Forest Upland</td>
</tr>
<tr>
<td>Areas characterized by tree cover (natural or semi-natural woody vegetation, generally greater than 6 meters</td>
</tr>
<tr>
<td>tall); Tree canopy accounts for 25 to 100 percent of the cover.</td>
</tr>
<tr>
<td>Wetlands</td>
</tr>
<tr>
<td>Areas where the soil or substrate is periodically saturated with or covered with water.</td>
</tr>
</tbody>
</table>


Source: National Land Cover Dataset (USGS, 1992)
Map 11
Otto Township
LAND COVER circa 1992

Legend:
- Red: Developed
- Orange: Herbaceous Upland
- Yellow: Herbaceous Planted/Cultivated
- Pink: Shrubland
- Light Green: Forested Upland
- Green: Wetlands
- Blue: Open Water
- Light Gray: Township Sections

Data Source:
National Land Cover Dataset (USGS, 1992)

Note:
This map is intended for general planning purposes only.

Map created in July 2009 by:
West Michigan Regional Development Commission

Otto Township Master Plan
Chapter 7: Development Strategy

One must obtain a thorough understanding of a community in order to establish an appropriate development strategy for its future. The previous chapters of this document describe the township’s history, demographics, infrastructure, and physical geography. However, one critical component to the analysis of Otto Township has yet to be addressed: public opinion. It is described in the “Township Visions” section below. The information presented therein is then synthesized with the information from previous chapters of this document to form the final section of this chapter, “Goals and Objectives.”

Township Visions

In order to develop an effective master plan, the needs and desires of the citizens must be carefully considered. To help develop the visions and goals included in this chapter, the following efforts were made to seek public input from township residents.

A special public meeting was held at the township hall on Tuesday, March 10, 2009 at 7:00 PM in order to gather input from interested citizens regarding land use decisions in the Otto Township Master Plan and the future direction of the township. Township officials published a notice of this hearing in the March 5, 2009 edition of the Oceana Herald-Journal.

During the meeting, a Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis exercise was conducted by staff from WMSRDC. Attendees of the meeting were asked to discuss strengths, weaknesses, opportunities, and threats facing Otto Township. These responses were recorded and combined into the “Otto Township SWOT Analysis Report” which has been included in Appendix C of this plan.

The SWOT activity revealed a number of issues facing the township and produced many alternative solutions to address those issues. A recurring theme of the SWOT Analysis was the rural and undeveloped nature of Otto Township. Rapid, uncontrolled development was viewed as a threat to the township; while improving public access to state and federal lands was seen as an opportunity. Input such as this provided valuable Otto Township perspectives, and strongly influenced the Goals and Objectives found in the following section.

Goals and Objectives

The following goals and objectives are intended to describe a desirable end state or condition of the township within the next 20 to 25 years. They are intentionally general but are all attainable through a proactive and collaborative community effort. The objectives tend to be more specific and may be viewed as milestones used in the process to achieve the larger goal. Although the goals and objectives were not listed in a significant order, they have been organized under the following four subject areas: Infrastructure; Recreation; Township Character; and Land Use and Development.
Infrastructure

**GOAL:** Strive to provide adequate and sufficient infrastructure to township residents.

- Establish a working relationship with the Oceana County Road Commission in order to improve and maintain the road conditions in Otto Township.
- Become knowledgeable of potential road funding opportunities by working closely with the Oceana County Road Commission to secure adequate funding for the maintenance and improvement of township roads.
- Strive to improve the road conditions within the township including the posting of weight restrictions on local roads, as well as providing adequate emergency vehicle access.
- Work with local utility companies to provide improved cell phone, cable television and high speed internet service within the township.
- Explore the possibility of alternative energy (wind generation) opportunities within the township.

Recreation

**GOAL:** Encourage and promote the abundant recreational opportunities located within Otto Township while protecting and preserving the area’s precious natural resources.

- Strive to preserve as much of the plentiful open spaces in the township as possible.
- Continue to support and encourage hobby farming in the township.
- Promote and maintain current recreational opportunities within the township including hunting, fishing, snowmobiling, etc.
- Develop additional recreational opportunities in the township including the construction of a township park/community area.
- Encourage the development of either a publicly or privately owned recreational camp ground within the township.
- Investigate the possibility of creating a local farmers market.
- Explore the potential economic opportunity of developing recreational activities in the township.
- Work with the Michigan Department of Natural Resources and the United States Forest Service, whom own approximately 50 percent of the land within the township in order to preserve the valuable open space and its environmental benefits.
Township Character

GOAL: Maintain a strong sense of community and rural character in Otto Township.

- Continue to maintain the valued rural character of the township through future development decisions.
- Strive to develop a community area and garden in order to further promote and enhance the township’s strong sense of community.
- Take advantage of the township’s central location within West Michigan.
- Encourage residents to promote a sense of community pride through the cleanup and maintenance of their homes and property.
- Establish development standards that will maintain the area’s rural atmosphere.

Land Use and Development

GOAL: Promote land use and development decisions that positively manage future development while minimizing over-development.

- Utilize established zoning and land use techniques to positively manage future development in Otto Township.
- Strive to minimize the potential for over-development.
- Regularly review and update Otto Township’s ordinances and regulations in order to maintain their simplicity.
- Continue to host and support the township’s annual Dump Days.
- Maintain the Otto Township Newsletter in order to continually inform residents regarding township business and future events.
- Develop and enforce a reasonable junk ordinance for Otto Township.
- Encourage expanded dining opportunities in the township.
Chapter 8: Implementation

Future Land Use

A future land use map requires a synthesis of all the information included in a master plan and results in a map that generally depicts the various types of recommended land uses and their locations in the community. The map is accompanied by text explaining the “district” or “categories” used on the map. These “categories” describe the character of the land use as well as their relation, if any, to the zoning districts dictated by the Otto Township Zoning Ordinance.

A master plan and a zoning ordinance are separate, yet closely related, and often mistaken for one-another. Generally speaking, the master plan and future land use map are intended to reflect the future ambitions of the community, while a zoning ordinance provides the means to arrive at that point. The future land use map is intended to serve as a guide for land use decisions over a longer period of time, while the zoning map is a mechanism for shaping immediate development decisions.

A zoning ordinance is the legal arm of a master plan. It is the most frequently used and effective regulatory tool to implement a master plan, as it regulates land use. The primary land use regulation tool is a community’s ability to alter and adjust regulations spelled out in the zoning ordinance. The master plan and future land use map can be utilized to guide and encourage what and where zoning changes will occur. For example, rezoning requests are often required to be consistent with the master plan’s designations, which are consistent with the community’s desires for the future.

The word “district” is often used in both kinds of documents; however, the term must be used carefully. On one hand, using similar terms for the various land use designations is one way to demonstrate the relationship between the two documents, and it helps to avoid confusion and translation difficulties. On the other hand, it is imperative to acknowledge that future land use map and a zoning map districts are not necessarily equal. For example, the use of a term such as “cluster housing” in a future land use map does not necessarily translate into specific numbers in terms of lot sizes and other elements of zoning. Zoning districts should be specific and precise for legal reasons, while future land use districts should remain general to allow for future flexibility and interpretation.

With assistance from a special Otto Township Planning Commission, seven general future land use categories have been identified for the township. These districts were chosen as a result of the analysis of current land uses and ownership, physical and environmental suitability, and compatibility with goals and objectives identified in the plan. These land uses include:

- Civic & Institutional
- Cluster Housing
- Commercial
- Light Industrial
- Mobile Home
- Open Space Conservation
- Rural

Otto Township Master Plan
Future Land Use Category Descriptions

Civic & Institutional
The Civic & Institutional category includes public and private facilities dedicated to things such as health care, government, education, transportation, and emergency services (fire, ambulance, police, etc.). Also included in this district are township-owned properties, which may be available for recreational use by the public.

Civic and institutional land uses are permitted in the Rural District of the Otto Township Zoning Ordinance.

Cluster Housing
The Cluster Housing category is intended to provide a location within the township for the development of a residential subdivision. The purpose of cluster development is to protect open space by allowing any number of units allowed for a parcel independent of any minimum lot size. This allows flexibility in the arrangement of units within the development. Open spaces remaining outside the arrangement of units may be used for agricultural preservation, natural habitat preservation, or for exclusive use by residents.

This district is situated in Section 20 near the intersection of Forest Glen Road and Wilke Road. Included here is the Sand Creek Forest subdivision, which is the only platted land in Otto Township. “Cluster Housing” does not directly correspond with any districts in the Otto Township Zoning Ordinance.

Commercial
The Commercial category is intended to allow for retail, office, and service establishments to serve local and regional markets. Any developments shall be compatible and harmonious with adjacent surroundings. The preservation of environmentally sensitive areas, important open space, and natural corridors should be encouraged.

It is important to note that Otto Township has no intentions of promoting or encouraging commercial development within the township. However, township officials recognize that small commercial developments may happen in the future and wish to remain proactive in the placement of potential commercial development. Therefore, officials designated a general area that would be best suited to handle minimal commercial development, if it were to occur. This area is located in the southwest corner of the township along 116th Avenue, which is a primary county road. It includes the township’s only existing commercial business, and is in close proximity to a recreation/commercial business in the neighboring community to the south.

The Otto Township Zoning Ordinance lists “Commercial” as one of the township’s three zoning districts. The ordinance, however, lacks a description and definition for this district. Therefore, it is not possible to relate the Commercial land use district with its counterpart mentioned in the Zoning Ordinance.

Light Industrial
The Light Industrial category is intended to expand and improve employment opportunities within the township. Ideal industrial processes in this area would exist without causing nuisance to nearby properties or the general public, and have minimal
environmental impact. Research and development businesses should be favored, as traditional industry wanes and the knowledge economy increases. It is recommended that these areas have access to major transportation routes and municipal water and wastewater services.

This land use category is not addressed in the Otto Township Zoning Ordinance, and has been included on the Future Land Use Map as a precautionary measure. It is important to note that Otto Township has no intentions of promoting or encouraging industrial development within the township. However, township officials recognize that small industrial type developments may happen in the future and wish to remain proactive in the placement of potential industrial development. Therefore, officials designated a general area that would be best suited to handle minimal industrial development, if it were to occur. This area is located in the northeast corner of 116th Avenue and Skeels Road, which are both primary roads.

Mobile Home
In the interest of promoting the greatest possible diversity of housing types, the future land use map includes an area for mobile homes. Due to the potential for higher density within mobile home developments, they must be located on soils which have the greatest capacity to support habitation or have access to municipal water and wastewater services. In addition, mobile home developments must be located on higher capacity roadways, be near existing concentrations of population and services, and near major roadways.

This land use category is located on McKinley Road, just west of 116th Avenue. The placement of mobile homes and mobile home parks is permissible within the “Rural” district of the Otto Township Zoning Ordinance.

Open Space Conservation
The Open Space Conservation category includes areas designated for the protection of sensitive and valued natural features such as forests. Use of these areas should be reserved for outdoor recreation. Development should be limited to park facilities, development of a trail system, and other publicly-accessible sites. State and federally owned lands within the township are included in this category.

This land use category blankets more of the township than any other on the future land use map. It is most common across the southern and eastern portions of the township. The Otto Township Zoning Ordinance does not contain any specific land conservation districts. The “Rural” zoning district is most likely to correspond with the Open Space Conservation land use category.

Rural
The Rural category is intended to preserve the character of the community. The preservation of natural corridors, agriculture, and environmentally sensitive areas shall be encouraged. Permissible land uses shall consist of agricultural activities, single family housing on large lots, and undeveloped land. Housing sites should be restricted to locations with soils suitable to on-site septic systems.

This land use category generally corresponds with the “Rural” zoning district in the Otto Township Zoning Ordinance. It is the second most common land use on the future land use map.
Planning Implementation Tools & Techniques

The ultimate goal of planning, of course, is implementation. Implementing the ideas generated through the planning process is the culmination of the analysis, goal setting, and interaction activities, which took place during the creation of the Master Plan. This portion of the Plan is designed to guide the community in taking the actions necessary to achieve its goals and objectives.

The Plan is intended to be a working document that provides township decision makers with information on the goals desired and communicated by the community. The Plan should be consulted whenever policy issues arise, especially those relating to land use. Additionally, when the visions of the township change or advance, the Plan should be updated accordingly.

Successful implementation requires a dedicated effort on the part of the Otto Township Planning Commission, Township Board, and the community at large. It is essential that each member of the Planning Commission and Township Board understands the Plan, knows his/her own role as it relates to the Plan, and promotes implementation of the Plan.

The goals and objectives of the Otto Township Master Plan can be implemented through the use of the following described tools and techniques that are available to the township. The list of tools and techniques is certainly not exhaustive, and some items on it are more applicable to the township than others. Many of the tools and techniques can be used for multiple purposes by the township to achieve its goals and objectives, even though they are listed under specific headings.

Zoning Ordinance
A zoning ordinance is the primary regulatory tool used to implement master plans. Following the adoption of the Plan, the township should complete an internal inventory and review its priorities. It should then amend the Otto Township Zoning Ordinance as appropriate. This will ensure that the zoning ordinance will be consistent with the approved Master Plan, and will also help the township defend its land use-related decisions.

Land Division Act
Townships are authorized to regulate and control the subdivision of land within their jurisdictions pursuant to Public Act 591 of 1996, the Land Division Act (formerly known as P.A. 288 of 1967, the Subdivision Control Act). Amended in 1997, this act gave a township with a land division ordinance more control over how land could be divided and lessened state controls. The act governed the division of existing parcels, called “parent parcels,” as identified by the state.

A township can have an important voice in the design and layout of subdivisions and can set uniform standards for streets and roads, utilities, and other improvements with the utilization of a local land division control ordinance. The land division ordinance can reference all other township ordinances and require conformance with them. Conformance with the zoning ordinance and the insertion of land division design standards while updating the ordinance offers control over density.
Planned Unit Development (PUD)
The planned unit development concept is utilized by many communities to encourage innovative and imaginative project design. As a development type, it permits flexibility in site design and usage. It allows buildings to be clustered by mixing types, or by combining housing with ancillary uses such as neighborhood shopping. It allows for better design and arrangement of open space and the retention of such natural features as forests, slope, and floodplains. As a regulatory tool, it allows variation in many of the traditional controls related to density, setback, use and open space.

Cluster Development
Cluster development is a residential site design and zoning technique used to protect natural, cultural, or recreational features of the landscape while allowing new development. The basic idea is to cluster new development on one portion of a property, while leaving a large tract of environmentally sensitive or scenic land intact on the remainder of the parcel. If used carefully, this technique can significantly lower the impact on the natural landscape and minimize the costs of providing public services to new homes since they are located in proximity to each other.

While similar to PUD development, Cluster development should not be confused with planned unit development (PUD). Cluster development places a greater emphasis on protecting open space and typically applies only to residential units. PUDs, on the other hand, focus on infrastructure reduction and often allow compatible commercial development (e.g., convenience stores, office, etc.) to be included in the overall development.

Open Space Preservation
A variation on the PUD theme is an Open Space Preservation district. In this type of district, or in a residential district with this feature, developers are encouraged to set aside open space in perpetuity in exchange for flexibility on the part of the township with respect to zoning requirements. Open space conservation is important because open space needs to be planned and provided for prior to complete development occurring.

Key characteristics of an Open Space Preservation District/Overlay, when combined with elements of the PUD concept or Cluster concept, include:

- Flexibility in the design of a development.
- Lot size restrictions in traditional zoning are converted to density limitations where the unit of measurement is the entire project, not the individual lot.
- Allowance for slightly greater density than normal zoning, in most cases, as an incentive.
- Buffering/open space in the development is in exchange for flexibility on the part of the township, so the alternative (i.e. traditional zoning) must be fairly rigid, more restrictive, and strictly enforced.
- The developer saves money through lower up-front costs for infrastructure, and tends to make more profit through higher initial sales price and greater sales volume.
Open Space Zoning allows the developer to have some additional units to market, in exchange for the promise to set aside a portion of the development as open space in perpetuity.

Growth Management

“Growth management refers to the systematic attempt by a community to guide the type, rate, location, timing, public cost of, and often the quality and character of land re-development” (Michigan Department of Natural Resources, Michigan Coastal Management Program). Growth management must be, first and foremost, well integrated into the planning and zoning process. As an overview, there are several possible avenues to explore when considering a growth management strategy. Among them are:

**Purchase of Development Rights.** In this scenario, the township directly remunerates the land owner in return for exclusive rights to develop the property as the township sees fit or to preserve it. The rights may also be sold to yet another property owner who can (or will) develop the land as the township wishes. The land owner participates voluntarily, still owns the land, and can use or sell the land for specified purposes, such as farming or hunting.

Once a Purchase of Development Rights agreement is made, a permanent deed restriction is placed on the property which limits the type of development that may take place on the land. A legally binding guarantee is thus achieved to ensure that the parcel will remain as it is or be developed only as wished. The deed restriction can also be referred to as a conservation easement.

**Transfer of Development Rights.** Although not authorized by statute for use between jurisdictions in Michigan, this technique has been used successfully elsewhere. It is a variation on the above, except a trade is made between two or more parcels. It essentially is a method for protecting land by transferring the “right to develop” from one area (sending) and giving it to another area (receiving). A consensus must be reached on where the public wishes to preserve low density or open space and where it will allow for increases in development densities.

“Receiving” areas generally have streets, public water and sewer, and other improvements or the improvements are such that they can be extended a short distance without extensive cost. The costs of purchasing the easements are recovered from the developers who receive building “bonuses” according to the values agreed upon. As with Purchase of Development Rights, the owner of the preserved site participates voluntarily and retains existing use rights while receiving compensation for the development value of the land.

**Concurrency.** This is a situation in which the township ties development (i.e. density and type) to established bench marks regarding public service (i.e. water, sewer, roadway capacity, police, fire, educational and others) to control development. No development can occur in a given area until the benchmarks are met, either by the township or the developer. This method also requires a carefully laid out capital improvements plan to be fully effective.

**Development Agreements.** This would operate much like a contract/site plan review process combined. It would cover a fixed period in time, and would identify specific
elements of development covered. It would offer assurances for both sides that planning could take place and there would be no changing of the rules in the middle of the game.

**Regional Impact Coordination.** In a larger sense, this concept amounts to a specific agreement to involve other jurisdictions in any development which has a “regional impact”. One way to implement such coordination is through the establishment of a joint planning commission (JPC), as enabled by the State of Michigan’s Joint Municipal Planning Act PA 226 of 2003.

The State of Michigan has taken another step by making it mandatory that amendments to a community’s master plan be submitted, for review and comment, to all bordering jurisdictions, the acting regional planning commission, and ultimately the County. While presently these comments have no regulatory implications, this legislation is the first step in working towards a collaborative effort amongst bordering municipalities encouraging similar land uses on adjacent parcels.

**Capital Improvements Program**
A Capital Improvements Program (CIP) is a fiscal plan outlining the means for the township to finance selected projects requiring capital, either on a short-term or long-range basis. The CIP thus sets priorities for future development. Projects typically included are public facilities such as township halls and parks, land improvements, roads, bridges, acquisitions, utilities, planning projects, etc.

**Dedicated Millage**
A dedicated millage can be used to generate revenues for a specific purpose and, in so doing, can implement recommendations of the Master Plan. For example, a dedicated millage could be used to establish a land acquisition fund, a recreational path fund, or a conservation easement program. All of these would be useful tools for promoting open space preservation.

Although acquisition of land by a governmental unit provides the greatest level of land use control, it is also the most expensive. In addition to acquisition costs, purchase removes property from the tax rolls and decreases property tax revenues.

**Land Conservancy**
While property owners can voluntarily donate or sell land or easements in the interest of conserving natural resources or natural features, and perhaps qualify for income, estate and property tax benefits, private land trusts can facilitate a resource protection program by use of a variety of land acquisition and conservation techniques.

For instance, The Land Conservancy of West Michigan (LCWM) “protects lands that contribute to the distinctive character and quality of life in West Michigan; lands that are important for their values as habitat for native plants and animals, as centers for study and quiet recreation, and as elements of scenic beauty and rural character. LCWM offers positive, non-regulatory solutions to disappearing open space that benefit landowners and local communities.”

LCWM acquires natural land through donation or “bargain sale” purchase of high priority land for the purpose of creating nature preserves that are open to the public.
also assists with conservation easements and works with developers to construct easements for open space design. Finally, LCWM assists local governments with identifying important natural areas, preserving lands, creating community parks, and writing grant applications for project funding.

**Conservation Easements**

The Farmland and Open Space Preservation Act of 1974 provides for dedication of a conservation easement to a public entity while the Conservation and Historic Preservation Easement Act of 1980 gives a third party, such as a land trust, the right to receive and the resulting responsibility to enforce an easement. Conservation easements are voluntary legal agreements between landowners and a land conservancy or government agency and are distinct property rights that may be sold or donated separately from other rights.

Conservation easements are effective for preserving sensitive lands, providing public access along rivers or greenways, and allowing property owners to consider land stewardship while they continue to live on their land. They permanently limit development of the property in order to protect the conservation values of the land. The landowner continues to bear all costs and liabilities related to ownership and maintenance of the property.

The relationship between Purchase of Development Rights and conservation easements is close and the terms are often used interchangeably. However, conservation easements can be both sold or donated. When a land owner sells the development rights for less than their full value, it is called a “bargain sale.” Bargain sales and donations can reduce income, inheritance, and property taxes while providing cash for needed purposes when meeting the necessary requirements.
Chapter 9: Recommendations

Otto Township contains an abundance of natural resources in the form of watercourses, forests, and some agriculture. These attributes, along with the township’s easy access to major transportation routes and close proximity to regional services and employment, have combined to create a desirable environment to live and play. This is reflected in the township’s increasing population trends and forecasts for future growth.

Protection of the township’s valued resources will become paramount to the preservation of its rural and natural character. It will be increasingly important to reference this document when making recommendations regarding development and land use decisions. If utilized properly, this plan will provide a central vision from which township officials can make decisions. Additionally, the township should continually revisit the visions, goals, and objectives identified in this document, and prioritize those of greatest and most timely importance, to ensure the plan’s relevance and usefulness.

The township, by adopting the Otto Township Master Plan and Future Land Use Map, is preparing itself to manage its growth. Prior to the completion of this master plan, the township did not have such a document. It is therefore important for the township to review the Otto Township Zoning Ordinance, and make appropriate adjustments so that it reflects the goals and objectives contained within this document.

As previously stated, the goal of any plan is to combine the needs and desires of the citizenry with the suitability and capability of the land for sustaining those uses, according to the ability and desire of the municipality to provide public services throughout the jurisdiction. Careful consideration must be given to the preservation of the township’s unique resources as well.

Recognition of impending development pressures associated with future population increases helps to highlight the importance of proactive growth management, preserving natural resources, and maintaining the rural and recreational character of the township. Objectives for growth management include on-going education on growth management techniques, utilization of those techniques, and inclusion of environmental and infrastructure considerations in development decisions. Objectives for preserving natural resources include those that focus on building partnerships; while objectives for promoting existing resources for recreational purposes include the expansion of recreational uses and the adoption of a Community Recreation Plan.

The communities surrounding, and including Otto Township, share many of the same rural characteristics. Consequently, many of the communities’ goals and objectives may coincide as well. In some cases, it may be more feasible to achieve these goals and objectives through municipal collaboration, rather than by each community on its own. While only appropriate under certain circumstances, municipal collaboration is a viable option to improve standard of living through the provision of more and/or better quality services. One example already being implemented by Otto Township is the provision of fire service. Otto Township is able to utilize the capacity of surrounding municipal fire services rather than invest in its own fire department. The potential for future collaborations certainly exists, and could include recreational trail systems, park facilities, or nature preserves.
Chapter 10: Conclusion

The changes envisioned in this master plan will occur as a result of cumulative private and public decisions about such things as opening a business, locating a residential development, and installing a public park. The inner-workings of investments by private actors and individual entrepreneurs, as well as development decisions by public and quasi-public agencies, bring about physical changes to an area.

If properly used, this master plan can guide government about where public development should go and why. It can give potential investors a general sense of where the community would prefer residential and commercial development to be located. In short, the purpose of a comprehensive development plan is to offer guidance to any and all actors whose decisions affect land. In more particular terms, this plan offers several professional suggestions for achieving commonly held aspirations for the community’s future development.

The master plan provides a clear vision for Otto Township’s future growth and development. It describes, through the Future Land Use Map, where various types of future land uses (i.e. development) should be located. It also provides guidance as to the form, characteristics, and appearance that are desired for future development. However, the vision embodied by the master plan is but a step in making those visions a reality.

Beyond this plan awaits the need for a commitment by the township to dedicate the necessary resources for review of the master plan at a minimum of every five years. This will enable the Otto Township Planning Commission to track progress of implementation, while taking the pulse of the community to determine whether the goals are still appropriate and if additional goals should be added.

The Otto Township Master Plan should be consulted regularly as it is a guide for land use decisions, and should be updated accordingly as the local situation warrants. It is important to note that change is inevitable, and managing that change will be the key to Otto Township’s success in the management of development and the desired character of the township.
Appendix A
Public Notices and Plan Approval Process

This section chronologically documents the actions taken by Otto Township to invite the public, as well as neighboring communities, to participate in the processes of developing and approving the Otto Township Master Plan.

Notice of Intent to Plan - Below is an example of the letter that was mailed to the listed communities on February 9, 2009.

Oceana County Planning Commission
- Blue Lake Township
- Ferry Township
- Grant Township
- Greenwood Township
- Holton Township

Montague Township
- Newfield Township
- Shelby Township
- Otto Township

February 6, 2009

Ms. Jean Pease, Chairperson
Oceana County Planning Commission
3475 S. 154th Avenue
Hesperia, MI 49421

Dear Ms. Pease,

On behalf of the Otto Township Board of Trustees, I would like to advise you that Otto Township with assistance from the West Michigan Shoreline Regional Development Commission has started the process of developing a Township Master Plan. It is anticipated that this plan will act as the Township’s official Master Plan once completed and adopted. We are requesting your cooperation and comment during this process.

A public meeting has been scheduled for 7:00 PM on Tuesday, March 10 at the Otto Township Hall located at 5458 South 128th Avenue. The purpose of the meeting is to gather community input for the Master Plan.

A draft document is expected to be completed by November 2009. At that time, a copy of the draft document will be submitted to you for your review and comment. We look forward to receiving your input regarding the Otto Township Master Plan.

If you have any questions regarding the Otto Township Master Plan, please contact me at (231) 722-7878 extension 18 or at ekuhn@wmsrdc.org. Thank you for your time and cooperation.

Sincerely,

Erin Kuhn
Program Manager
Public Notice - Published in the March 5, 2009 edition of the Oceana Herald-Journal.

NOTICE OF TOWNSHIP MEETING REGARDING OTTO TOWNSHIP MASTER PLAN

Please be advised that Otto Township, with the assistance of the West Michigan Shoreline Regional Development Commission (WMSRDC), will hold a Town Meeting on Tuesday, March 10, 2009 to receive public input for the Otto Township Master Plan. The meeting will take place at 7:00 PM at the Otto Township Hall located at 5458 South 128th Avenue, Rothbury, MI 49452. The meeting is open to the public, and everyone with an interest in the future direction of Otto Township is encouraged to attend the meeting. Citizen participation in this process is essential.

Written comments may also be submitted by March 10, 2009 to the West Michigan Shoreline Regional Development Commission, P.O. Box 387, Muskegon, Michigan 49443 or via electronic mail at wmsrdc@wmsrdc.org. If there are any questions, please contact Ms. Erin Kuhn, Program Manager, at (231) 722-7878, extension 18 or at ekuhn@wmsrdc.org.

Border Review - Below is an example of the letter that was mailed to the bordering communities and the Oceana County Planning Commission on December 18, 2009.

December 18, 2009

Ms. Jean Pease, Chairperson
Oceana County Planning Commission
3475 S. 154th Avenue
Hesperia, MI 49421

Dear Ms. Pease,

On behalf of the Otto Township Planning Commission, I would like to advise you that Otto Township, with assistance from the West Michigan Shoreline Regional Development Commission, has completed a draft of the Otto Township Master Plan. It is anticipated that this plan will act as the Township’s official Master Plan once adopted.

At the December 10th, 2009 Otto Township Regular Board Meeting, the Township Board approved the draft Plan for the state mandated Bordering Township and County 63 day review period. Enclosed is a CD copy of the draft Otto Township Master Plan for your review and comment.

Please forward any and all written comments to the Otto Township Hall located at 5458 South 128th Avenue, Rothbury, MI 49452.

A public hearing to receive public comment is currently scheduled for March 9th, 2009 at 7:00 p.m. at the Otto Township Hall. Additional notices of the public hearing will be published in the local newspaper closer to the date of the public hearing.

If you have any questions regarding the draft Otto Township Master Plan, please contact me at (231) 722-7878 extension 18 or at ekuhn@wmsrdc.org. Thank you for your time and cooperation.

Sincerely,

Erin Kuhn
Program Manager

NOTICE OF PUBLIC VIEWING REGARDING THE OTTO TOWNSHIP MASTER PLAN

Please be advised that Otto Township, with the assistance of the West Michigan Shoreline Regional Development Commission (WMSRDC), will hold a public viewing period between Monday, February 15, 2010 and Monday, March 1, 2010 to review the draft Otto Township Master Plan. This viewing is open to the public and anyone with an interest in the Otto Township Master Plan is encouraged to review the document. The viewings will take place at the Van Patten's General Store located at 8416 South 116th Avenue, Rothbury, MI 49452 during regular business hours.

Following the viewing period, a Public Hearing will be held to receive comments on the Otto Township Master Plan. The Public Hearing is scheduled for Tuesday, March 2, 2010 at the Otto Township Hall at 7:00 PM.

Written comments may also be submitted by Monday, March 1, 2010 to the West Michigan Shoreline Regional Development Commission, 316 Morris Avenue, Suite 340, P.O. Box 387, Muskegon, Michigan 49443 or via electronic mail at ekuhn@wmsrdc.org. If there are any questions, please contact Erin Kuhn, Program Manager, WMSRDC, (231) 722-7878 (extension 18).
Final Otto Township Board Approval – The Otto Township Master Plan was adopted, by resolution, on March 27, 2010. Below are the minutes from that meeting as well as the resolution of adoption.

Budget Public Hearing and Annual Meeting of 3-27-2010
Meeting at 10:00AM

I. Call to order: Supervisor Jibson called meeting to order at 10:07.

II. Pledge of Allegiance: Recited by all.

III. Roll Call: All members present.

IV. Approval of Agenda: Implied Consent

V. Open General Appropriations: Changes were made and Supervisor will correct and resend to all members. No comments from audience.

VI. Closed Public Hearing.

VII. Approval of vouchers: 6510-6531 for $4656.43 + Blue Lk stand by fees $3300.00
Grand Total of $7956.43

VIII. Public Comment Time: George and Nancy Dwyer spoke and Rex Perysian

IX. Open Issues:

1) 2010-2011 General Appropriations Budget Adoption: Trustee Justian made motion to accept Budget as revised, seconded by Trustee Budde all in favor. Ayes 5 Nays 0.

2) Master Plan Adoption: Clerk read resolution, Trustee Justian made motion to accept, seconded by Trustee Budde with a roll call vote. Trustee Justian yes, Trustee Budde yes, Treasurer Martin yes, Clerk Keck yes, Supervisor Jibson yes. Passed Ayes 5 Nays 0.

3) Junk Day: Will be held May 1, 2010 from 10am until 3 pm. Tickets will be given out until 2:30 at the town Hall. Clerk will put ad in both the Herald and the Beacon.

4) BOR Members and Alternate: Discussion was in regards to missing time and not being available for BOR meetings. Supervisor decided members would stay the same.

Supervisor Jibson made motion to accept Bill Keck as an alternate, seconded by Clerk Keck with a roll call vote. Trustee Justian yes, Trustee Budde yes, Treasurer Martin yes, Clerk Keck yes, Supervisor Jibson yes. Passed Ayes 5 Nays 0.

X. New Business:

1) Fire Contract: Supervisor Jibson made motion to accept new Fire Contract, seconded by Clerk Keck with a roll call vote. Trustee Justian yes, Trustee Budde yes, Treasurer Martin yes, Clerk Keck yes, Supervisor Jibson yes. Passed Ayes 5 Nays 0.

XI. Adjournment: Motion to adjourn by Clerk Keck, seconded by Supervisor Jibson all in favor. Ayes 5 Nays 0.

Adjourned at 11:15
Submitted by Clerk Keck on 329-2010
Otto Township Master Plan
Dated March, 2010

RESOLUTION

WHEREAS: The Otto Township Planning Commission of Otto Township has undertaken development of a five-year Master Plan, per Michigan Public Act 33 of 2008, which describes the physical features, existing facilities, and actions to be taken to preserve, protect and maintain the natural beauty and social environment as expressed by residents and property owners of the Otto Township area during the period between March 2010 and March 2015.

WHEREAS: A public comment session was held on March 2, 2010 at the Otto Township Hall to provide an opportunity for citizens to express opinions, ask questions and discuss all aspects of the Master Plan, and,

WHEREAS: The Planning Commission of Otto Township has developed the Master Plan for the benefit of the entire community and adopted said plan as a document to assist in meeting the needs of the community, and,

WHEREAS: After the public hearing, the Planning Commission of Otto Township voted to recommend adoption of the Master Plan by the Township Board of Otto Township.

NOW, THEREFORE BE IT RESOLVED: The Otto Township Board hereby adopts the Otto Township Master Plan as a guideline for improving and maintaining our community for the residents of Otto Township.

Introduced by: [Signature]
Supported by: [Signature]

Vote; Yes 5  No 0

Dated 3-30-2010

Carol Keck
Otto Township Clerk
Appendix B
Soil Association Descriptions

**Typic Udipsamments-Entic Harplorthods, Sandy Association** – Nearly level to steep, moderately well to excessively drained, sandy soils on outwash plains, ground moraines, and end moraines

Typic Udipsamments are on broad plains, knolls, ridges, back slopes, and shoulder slopes. Entic Harplorthods are on broad plains, knolls, back slopes, shoulder slopes, and ridgetops.

This association is wooded. An equipment limitation and seedling mortality are the major management concerns. The erosion hazard also is a management concern in the hilly and steep areas.

**Plainfield-Coloma-Grattan Association** – Nearly level to very steep, excessively drained, sandy soils on outwash plains, lake plains, ground moraines, and end moraines

Plainfield soils are on broad plains, knolls, and foot slopes on outwash plains. Coloma soils are on broad plains, knolls, back slopes, and shoulder slopes on outwash plains and moraines. Grattan soils are on broad plains, knolls, back slopes, shoulder slopes, and ridgetops on outwash plains, lake plains, and moraines.

Most areas of this association are wooded. An equipment limitation and seedling mortality are the major management concerns. The erosion hazard also is a management concern in the hilly to very steep areas.

**Grattan-Covert-Granby Association** – Nearly level to rolling, excessively drained, moderately well drained, and poorly drained, sandy soils on lake plains and outwash plains

Grattan soils are on broad plains, Knolls, foot slopes, and back slopes. Covert soils are on broad plains and low knolls. Granby soils are in depressions.

Most area of this association are used a woodland. An equipment limitation, seedling mortality, and the hazard of windthrow are the main concerns in managing woodland. The soils are poorly suited to cropland because of soil blowing, seasonal droughtiness, and seasonal wetness.

**Benona-Spinks-Grattan Association** – Nearly level to very steep, excessively drained and well drained, sandy soils on ground moraines, end moraines, lake plains, and outwash plains

Benona soils are on broad plains, knolls, back slopes, shoulder slopes, and hillsides. Spinks soils are on broad plains, knolls, back slopes, and shoulder slopes. Grattan soils are on broad plains, back slopes, shoulder slopes, and ridgetops.
In most areas this association is fairly well suited to cropland. Soil blowing, seasonal
droughtiness, a low content of organic matter, and a limited available water capacity are
the major management concerns. Water erosion also is a management concern in the
gently rolling and rolling areas. If these soils are used as woodland, and equipment
limitation and seedling mortality are the major management concerns. The erosion
hazard also is a management concern in the rolling to very steep areas.

**Medisaprists, Euic-Typic Haplquolls, Sandy Over Loamy-Mollic Psammaquents**

**Association** - Nearly level, very poorly drained and poorly drained, mucky soils
underlain by sandy or loamy material; on outwash plains, lake plains, ground
moraines, and flood plains.

Medisaprists, euic, are in depressions on outwash plains, ground moraines, and flood
 plains. Typic Haplquolls, sandy over loamy, are in depressions on ground moraines,
lake plains, and flood plains. Mollic Psammaquents are in depressions on flood plains,
lake plains, and outwash plains.

This association is wooded. An equipment limitation, seedling mortality, and the hazard
of windthrow are the major management concerns.
Appendix C
SWOT Analysis Report

OTTO TOWNSHIP MASTER PLAN

Purpose of the SWOT Analysis:

A Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis is a highly effective way of identifying Strengths and Weaknesses (existing conditions) and also your Opportunities and Threats (possible future conditions). Carrying out this type of analysis will help an entity to focus on the areas where it is strong and where the greatest opportunities lie.

To identify various areas in each of these categories, often a series of questions ought to be answered. The following questions were examined:

**Strengths:**
- What are this project’s advantages?
- What are Otto’s best attributes?
- How do others’ view the Otto area and its existing condition?

**Weaknesses:**
- What are areas for improvement for the Otto area?
- What types of things/attitudes should be avoided?

**Opportunities:**
- In which areas are the good opportunities facing this project?
- What are the interesting trends that you are aware of?

**Threats:**
- What obstacles does this project face?
- Down the road, who or what will be a force for detriment?

When this analysis is done in a realistic and candid way, it can be very informative – both in terms of pointing out what needs to be done, and in putting various issues into proper perspective.

The Otto Township Master Plan SWOT Analysis:

Otto Township, Oceana County, Michigan held a public meeting on Tuesday, March 10, 2009 at 7:00 PM at the township hall in order to gather input from citizens and township leaders regarding the development of the Otto Township Master Plan and the future direction of the township. During the meeting a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis exercise was conducted by staff from the West Michigan Shoreline Regional Development Commission. Attendees of the meeting were asked to list Strengths, Weaknesses, Opportunities and Threats facing Otto Township. Listed below are responses from the SWOT Analysis.
**SWOT Results:**

**Strengths**
- rural atmosphere
- township damp days
- township newsletter
- open spaces/underdevelopment
- hobby farming
- central location/proximity to populated areas
- outdoor recreation (hunting, fishing, & snowmobiling)
- state and federally owned land (~50%)
- snowmobile trails

**Weaknesses**
- #1 = roads
- cell phone service
- no cable (TV/internet)
- foreclosures
- no township parks
- junk
- dining opportunities
- sense of community
- signage (weight restrictions, public access)

**Opportunities**
- campground (township owned or private)
- township park
- community area
- hobby farming
- farm market
- community garden
- wind generation
- capitalize on recreation opportunities (ex: tubing on white river)

**Threats**
- ordinances (not keeping regulations simple)
- too rapid development
- overdevelopment
- unregulated development
- loss of rural atmosphere
- unlicensed junkyard on Skeels Rd
- funding for road maintenance/improvements (especially secondary roads)