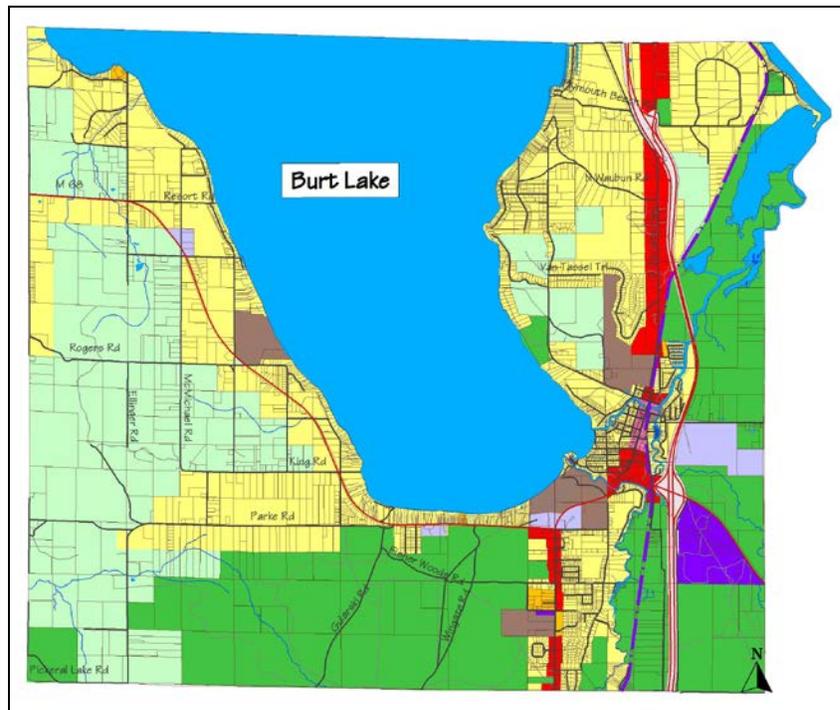


TUSCARORA TOWNSHIP

2012 MASTER PLAN UPDATE



Planning Commission Adopted: January 24, 2013
Township Board Adopted: February 5, 2013

With Planning Assistance provided by:

M. C. Planning & Design
504 Liberty Street
Petoskey, MI 49770
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Tuscarora Township

Cheboygan County, Michigan

2012 Master Plan Update

Prepared by:
Tuscarora Township Planning Commission

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Mike Vizina
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Adopted

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**TUSCARORA TOWNSHIP
2012 MASTER PLAN UPDATE**

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CHAPTER 1

Introduction

Purpose and Planning Process

The purpose of the Tuscarora Township Master Plan is to provide guidelines for future development, while protecting the natural resources and rural character of the Township. This plan presents extensive background information including socio-economic data on the Township; description and mapping of natural resources and existing land uses; and inventory of existing community facilities. The background information is analyzed to identify important characteristics, changes and trends occurring in the Tuscarora Township. Community concerns were identified based on past survey findings, previous planning efforts, and public meetings. Previously prepared goals and policies were reviewed and updated to better guide future development based on the background studies, key land use trends and community issues. These goals, along with an updated map of existing land use, provided the basis for the Future Land Use Map which specifies where the various types of future development ideally will be located in the Township. This plan also provides suggestions for implementation of the identified goals and policies. The guidance provided by this Master Plan will be utilized in reviewing the Cheboygan County Zoning Ordinance as it applies to Tuscarora Township.

Regional Setting and Historical Context

Tuscarora Township is located on the western border of Cheboygan County, which is situated in the north central part of Michigan's Lower Peninsula. While Tuscarora Township is greater than a standard geographic township in area, approximately 30 percent of the Township is water (Burt Lake).

Centrally located in the northern part of the Lower Peninsula, Tuscarora Township is approximately 20 miles from both Lake Huron and Lake Michigan. Tuscarora Township encompasses an area of 41.7 square miles. The township contains the southern half of Burt Lake, which occupies approximately 12 sq. miles of the township's area, see Figure 1-1.

As with all of the United States, Tuscarora Township was originally the homeland for Native Americans. In the early 1600's, the French explored the area and established a profitable fur business and missions. In the mid 1700's, both the British and French courted the friendship of the Native Americans. Control of the Michigan territory was in a state of flux between the nations for about 100 years.

In 1828, the area that is now Cheboygan County was part of Michilimackinac County. It was transferred to Mackinac County in 1840. In 1856, Cheboygan County was vastly enlarged to include most of Northeast Michigan. At one time, Cheboygan County was divided into the two counties of Cheboygan and Wyandot. From 1860 to the present, Cheboygan County's boundaries have remained essentially the same. The area was first surveyed from 1840 to 1843, by State surveyors Messrs. Burt and Mullett. Burt and Mullett Lakes are named in their honor.

Tuscarora Township is located at the heart of the "Inland Water Route". The "Inland Water Route" has been important in the early development of the Cheboygan area. The route consists of the Cheboygan River, Mullett Lake, Indian River, Burt Lake, Crooked River, Crooked Lake and Pickerel Lake. This connected waterway provides access between Lake Huron at

Cheboygan and Conway (a village nine miles north of Petoskey). The route has always been heavily used. At first the Native Americans paddled canoes through the water systems, then early crews used the route for commercial transportation of the great log booms of the late 1800's. It was later dredged and dammed to facilitate water travel. This water route is still heavily used to this day, mostly by small pleasure crafts.

With the settlement of northern Michigan by Europeans, the area's economic base went from fur trading to farming and timber. After a large amount of virgin timber was harvested in northern Michigan and agricultural practices began to become more modern, these two major industries saw a big decline in this region. Cheboygan County's economy was hit hard by the loss of jobs from these industries. Many of the area's residents left in order to find work in southern Michigan and elsewhere. At about the same time, however, the region began to become a popular recreation and resort area. Resorts were built in Cheboygan County on the "Little Great Lakes", as the lakes of the Inland Water Route were often called. This surge in the resort business helped the economy, but largely only during the summer months. As with all of the nation, Cheboygan County was devastated due to the Great Depression in the 1930's. A reawakening of the economy took place, however, in response to the need for goods and materials during World War II. With the advent of modern automobiles and the construction of I-75 through the Tuscarora Township area, the region has grown into the community it is today.

The Status of Planning and Zoning in Tuscarora Township

Cheboygan County formed their Zoning Commission and Board of Zoning Appeals in December of 1969, and adopted the County's first zoning ordinance that same month. The County's first Comprehensive Plan was adopted in August 1979. Tuscarora Township initially formed a Planning Commission in the late 1970s and adopted its first Master Plan in 1991. While Tuscarora Township has regularly reviewed and updated the Plan, since originally adopting a Master Plan, the Township has elected to remain under the Cheboygan County Zoning Ordinance. The Planning Commission was re-configured in accordance with both Michigan Planning Enabling Act and Michigan Zoning Enabling Act, in 2009.

In 2009, the Tuscarora Township Planning Commission reviewed the previous 1999 Master Plan and prepared an updated Plan in accordance with the Michigan Planning Enabling Act. Due to lapse of a decade since the last update, the 2010 update of the Master Plan was a comprehensive review and significant updates were made regarding the social and economic characteristics, the services, the existing land use/cover map. The goals, objectives and policies were found to generally still be applicable, but were supplemented to address current concerns. The future land use map was reviewed and updated based on public input.

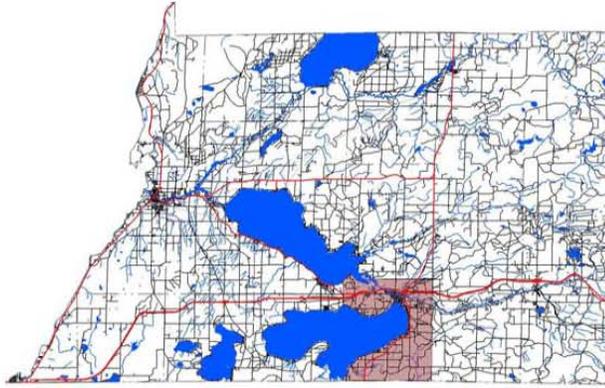
In 2012, the Planning Commission prepared a minor update primarily to include the 2010 Census and related data, update the sewer status, and include minor revisions to the Future Land Use Plan.

Zoning ordinances supported by up-to-date comprehensive land use plans are considered the main tool Michigan communities have at their command to control land use patterns and development pressures. To provide a strong legal foundation a zoning ordinance should correspond to an up-to-date adopted Master Plan. Since the County administers a Zoning Ordinance covering the Township, it is advisable that the Township re-review the Zoning Ordinance following any Master Plan updates to ensure the local zoning is supported by the plan to provide a stronger legal foundation for the County Zoning Ordinance within Tuscarora Township.

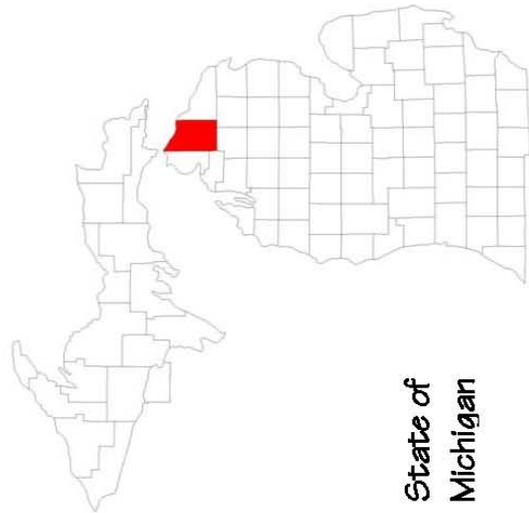
Figure 1-1
Location Map, Tuscarora Township



Tuscarora Township



Cheboygan County



**State of
Michigan**

CHAPTER 2

Township Social and Economic Characteristics

Population

According to the U.S. Census Bureau, the population for Tuscarora Township in 2010 was 3,038 persons (1,468 male – 1,570 female), averaging approximately 103 persons per square mile for the Township's 29.5 square miles of land area. This population density can be compared to approximately 36.5 persons per square mile for Cheboygan County and 174.0 persons per square mile for the State of Michigan.

In discussing the population for Tuscarora Township, however, it is important to note that the figure presented by the 2010 Census does not reflect the actual number of persons residing in the Township during the summer months. This situation can be seen throughout much of northern Michigan. The Census tally, taken on April 1st, does not count residents who winter elsewhere. Respondents are asked to declare a permanent residence different from their April location, if more than six months are spent at the alternate address. However, many fail to do so for reasons of misunderstanding or for tax purposes.

In reviewing the social and economic information derived from Census data, the figures presented for housing characteristics show 846 units or 35 percent of the total housing units as seasonal, recreational, or occasional use homes. Based on the average household size in Tuscarora Township of 2.23, the expected seasonal increase would be approximately 1,887 persons. In addition, many summer visitors stay at private lodging places or at the homes of family or friends.

Table 2-1 illustrates population statistics for permanent residents for Tuscarora Township and Cheboygan County from 1960 to 2010. As can be seen, the Township has experienced significant population growth during each of the decades between 1960 and 2000, with the most substantial percentage growth occurring between 1970 and 1980, when the township grew 45.7 percent. More recently, between 2000 and 2010, the Township and the County have each experienced a slight population decrease.

Table 2-1:
Population Changes 1960-2010
Tuscarora Township & Cheboygan County

	1960	Percent Change	1970	Percent Change	1980	Percent Change	1990	Percent Change	2000	Percent Change	2010
Cheboygan County	14,550	13.9	16,573	24.3	20,649	3.6	21,398	23.6	26,448	-1.1	26,152
Tuscarora Twp.	1,048	27.9	1,340	45.7	1,952	17.7	2,297	34.6	3,091	-1.7	3,038

Source: US Census Bureau 2010

Age Distribution and Racial Make-up

Information on age distribution within a population can assist the community in matching public services to community characteristics and in determining what, if any, special needs specific resident groups might have.

Age distribution for Tuscarora Township in 2010 reflects a population which is slightly older than that of Cheboygan County, and the State of Michigan as a whole, as illustrated in Table 2-2. While, the school age (5-17) and young adults (18-24) are slightly under represented in the Township in comparison to the County and State, the proportion of adults in the wage earning years (25-65) is closer to the County and State norms, and most age groups over age 45 higher than the County and State levels, with the 65 and older group being much greater percentage than state-wide. Table 2-2 provides the statistical comparison of the age distribution for the Township, the County and the State, based on the 2010 Census.

At the time of the 2010 Census, the median age for Tuscarora Township was 49.5 years, for Cheboygan County, 47.1 years, and for the State, 38.9 years. The Township median age is somewhat older than both the State and County. It is important to remember these statistics do not include the seasonal resident population, which is also likely to have a larger proportion of older persons.

Table 2-2: Age Distribution - 2010 Tuscarora Township, Cheboygan County, State of Michigan					
Age	Tuscarora Twp.	Township %	Cheboygan Co.	County %	State %
Under 5	148	4.9	1,229	4.7	6.0
5-17	452	14.9	4,117	15.7	17.7
18-20	63	2.1	748	2.9	4.6
21-24	92	3.0	857	3.3	5.3
25-44	565	18.6	5,378	20.6	24.7
45-54	472	15.5	4,012	15.3	15.3
55-59	300	9.9	2,147	8.2	6.9
60-64	247	8.1	2,043	7.8	5.8
65 +	699	23.0	5,621	21.5	13.8
Total	3,038	100.0	26,152	100.0	100.1
Median age	49.5		47.1		38.9
Note: Due to rounding, percents may not equal 100 Source: Census of Population and Housing 2010; prepared by the Bureau of Census.					

The racial make-up of the Township is primarily white (2,923 persons). Native Americans are the primary minority population (52 persons), and there are very few persons of African American or Asian background reported.

Income and Employment

Income statistics from the U.S. Census 2006-2010 American Community Survey 5-year estimates show income levels for Northern Michigan greater than those found in the State as a whole. Table 2-3 compares income statistics for Tuscarora Township to Cheboygan County and the State.

Table 2-3: Income Statistics Tuscarora Township, Cheboygan County and State of Michigan		
	Median Household Income	Per Capita Income
Tuscarora Township	\$ 51,087	\$ 26,650
Cheboygan County	\$ 37,903	\$ 23,038
State of Michigan	\$ 48,432	\$ 25,135
Source: U.S. Census Bureau 2006-2010 American Community Survey		

Employment data on the civilian labor force is compiled on a monthly and annual basis by the Office of Labor Market Information (OLMI), Michigan Department of Energy, Labor and Economic Growth. Table 2-4 below compares the civilian labor force statistics for the County and State for 2007, 2009 and 2011; unfortunately township level data is no longer available.

Table 2-4: Civilian Labor Force Comparisons and Unemployment Cheboygan County and State of Michigan						
	County			State (in 1,000's)		
	2011	2009	2007	2011	2009	2007
Labor Force	10,696	11,709	12,554	4,658	4,851	5,034
Employed	9,534	10,119	11,284	4,178	4,200	4,678
Unemployed	1,162	1,590	1,270	480	651	356
Unemployment Rate %	10.9	13.6	10.1	10.3	13.4	7.1
Note: All numbers rounded to nearest 25. Source: Office of Labor Market Information, Michigan Department of Energy, Labor and Economic Growth						

Another method of describing the economic characteristics of a community is to analyze the different categories of employment. Along with employment and unemployment data, Employment data by Industry is provided from the 2006-2010 American Community Survey for the Township, County and State presented in Table 2-5.

Table 2-5
Employment by Industry 2010
Township, County and State

Industry	Tuscarora Township		Cheboygan County		State of Michigan
	Number	Percent	Number	Percent	Percent
Agriculture, forestry, fishing, hunting, and mining	0	0.0	209	2.0	1.3
Construction	29	2.5	1,111	10.9	5.3
Manufacturing	159	13.8	791	7.7	17.6
Wholesale trade	63	5.4	249	2.4	2.8
Retail trade	110	9.5	1,596	15.6	11.6
Transportation warehousing, and utilities	14	1.2	467	4.6	4.2
Information	0	0.0	78	0.8	1.9
Finance, insurance, real estate, rental and leasing	84	7.3	477	4.7	5.7
Professional, scientific, management, administrative, and waste management services	85	7.4	599	5.9	8.9
Educational, health, and social services	340	29.4	2,315	22.6	23.2
Arts, entertainment, recreation, accommodation and food services	196	17.0	1,364	13.3	9.1
Other services (except public administration)	56	4.8	531	5.2	4.7
Public administration	20	1.7	446	4.4	3.8

Source: U.S. Census Bureau 2006-2010 American Community Survey

As shown by the data above, the highest percentage of the jobs are in the educational, health and social services industries at the Township level. The other main employment industries for the Township which each provide more than ten percent of the employment are: arts, entertainment, recreation, accommodation and food services (17%) and manufacturing (13.8%).

Education

According to the U.S. Census Bureau 2006- 2010 American Community Survey, of the 2,264 persons in Tuscarora Township over 25 years of age, 92.2 percent have attained an education of high school graduate or higher, while 24.9 percent have attained a bachelor's degree or higher. This level of educational achievement is somewhat higher than the County as a whole, with 88.2 percent of the County's population having earned a high school diploma or higher and 17.8 percent a bachelor's degree or higher. The Township educational levels for high school diplomas at 92.2 percent is higher than the State level of 88.0 percent, and the Township's bachelor's degree levels at 16.8 percent is higher than the State level of 15.5 percent.

Housing Stock and Property Values

An evaluation of housing stock and property values can be very beneficial in determining community characteristics or housing needs. For example, a large percentage of seasonal housing units is indicative of an increased seasonal population, as is the case of Tuscarora Township.

Statistics from the 2006-2010 American Community Survey show a total of 2,320 housing units for Tuscarora Township: 1,990 single-family units, 35 units in duplexes, 77 units in multi-family structures, and 218 mobile homes. Multi-family housing represents just 4.8 percent of the housing stock, and mobile homes are about 9.4 percent of the housing stock in Tuscarora Township.

When compared to the State as a whole, seasonal housing in the Township and County is very significant, as shown in Table 2-6.

	Total Units	Seasonal Units	% Seasonal
Tuscarora Township	2,391	846	35.4
Cheboygan County	18,298	5,557	30.4
State of Michigan	4,532,233	263,071	5.8

Source: U.S. Bureau of Census, 2010 Census

Household Size

Census data from 2010 shows Tuscarora Township has a household size of 2.23 persons per household, compared with 2.31 persons per household in both Cheboygan County and 2.49 for the State of Michigan as a whole. These figures are a significant change from prior decades. Over the past few decades, many communities across the state have experienced a shrinking average household size. This trend to smaller households is important, because it creates a demand for additional housing units, even in the absence of numerical increase in population.

Ownership

In Tuscarora Township, 80.8 percent of the permanently occupied housing units are owner-occupied, nearly the same as the 81.6 percent at the County level. The owner occupancy rates state-wide are only 72.1 percent. The renter-occupied housing in Tuscarora Township accounts for 19.2 percent of the total housing of 723 units (median rent \$544), compared with State level of 27.9 percent and median rent, as reported in the 2010 census and 2006-2010 American Community Survey.

Housing Value

Another comparative measure for housing is value, as shown in Table 2-7. The median value of owner-occupied year-round housing units is \$176,700 for Tuscarora Township compared to \$114,600 in 2000. Cheboygan County's median value in 2010 is \$123,400 as compared to the value of \$94,500 in 2000, while Michigan's 2010 median value owner-occupied housing unit is \$144,200 (\$115,600 in 2000). This information, while collected by the Census Bureau is subjectively provided by the general population regarding what he or she thinks is the value of his or her house, therefore this information should be used with caution. Additionally, it is believed that some people may have underestimated the value of their homes due to concerns that accurate reporting might raise their taxes.

Housing Values	Percent of Units
Less than \$50,000	5.1
\$50,000 - 99,999	18.1
\$100,000 - 149,999	24.4
\$150,000 - 199,999	7.2
\$200,000 - 299,999	19.1
\$300,000 or more	26.2

Source: U.S. Bureau of Census 2006-2010 American Community Survey

Property Value

Property values can also be analyzed by reviewing State Equalized Value (SEV) figures. By law, SEV, which constitutes a community's tax base, is equal to approximately one-half of the true market value of real property and certain taxable personal properties. Table 2-8 provides data for 2006, 2008 and 2010. As shown in Table 2-9, as of 2012, the Township SEV decreased. The largest valued nonresidential class of properties continues to be commercial land, which accounts for 9.5 percent of the Township's total SEV. The pie chart presented in Figure 2-1, presents distribution of total SEV by Township within the County, and clearly illustrates that Tuscarora Township has the largest SEV of any of the Townships within Cheboygan County, and comprises over 16 percent of the total County SEV.

Table 2-8:
State Equalized Valuation by Property Class
 Tuscarora Township

Class	2006 SEV	2008 SEV	2010 SEV
Agriculture	628,600	722,200	579,500
Commercial	28,060,300	29,695,500	28,077,000
Industrial	142,500	150,500	97,800
Residential	287,628,550	288,432,080	243,030,950
Timber Cutover	0	0	0
Developmental	0	0	0
Total Real Property	316,359,950	319,000,280	271,785,250
Personal Property	5,345,700	5,373,100	5,396,750
Total SEV	321,705,650	324,373,380	277,182,000

Source: Cheboygan County Equalization Department.

Table 2-9:
Distribution of the SEV
 Tuscarora Township and Cheboygan County - 2012

Real Property:	Tuscarora Township		Cheboygan County	
	Amount	Percent	Amount	Percent
Agricultural	467,400	0.2	35,158,800	2.2
Commercial	25,015,913	9.5	157,280,613	9.7
Industrial	97,800	0.04	5,871,000	0.4
Residential	231,479,700	88.2	1,367,800,619	84.6
Timber Cutover	0	0.0	575,000	0.04
Developmental	0	0.0	3,343,900	0.2
Total Real Property	257,060,813	97.9	1,570,029,932	97.1
Personal Property	5,441,150	2.1	47,319,734	2.9
Total SEV	262,501,963	100.0	1,617,349,666	100.0

Source: Cheboygan County Equalization Department

Cheboygan County 2012 Distribution of Total SEV by Township

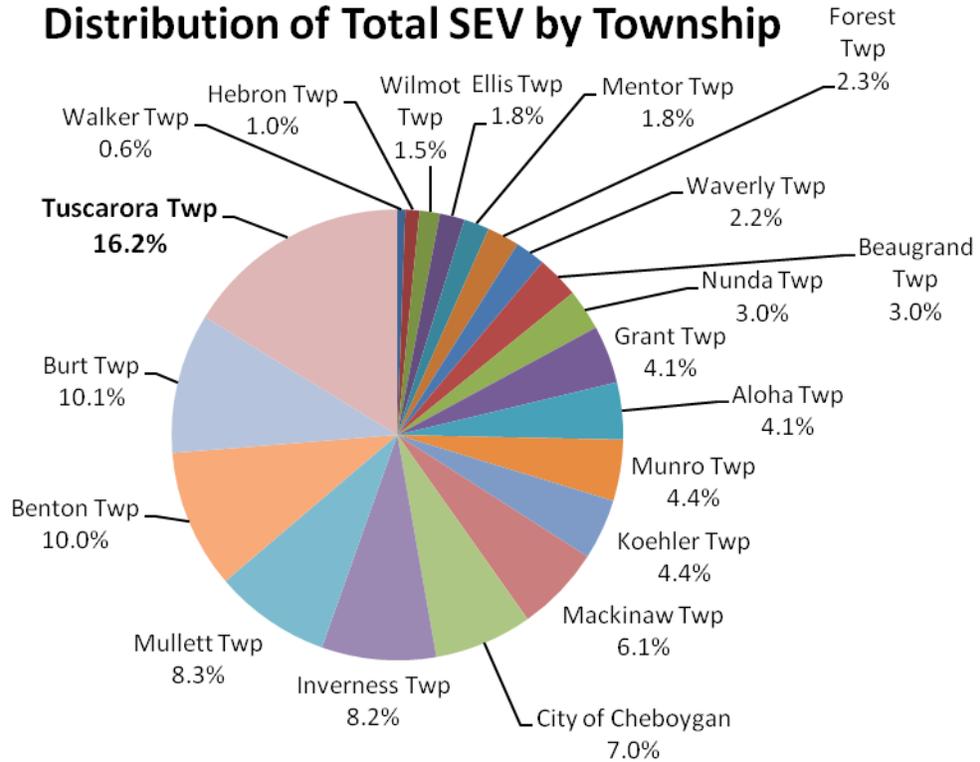


Figure 2-1

Source: Cheboygan County Equalization Reports-2012

CHAPTER 3

Natural Resources

Climate

Tuscarora Township's position in the interior of northern Lower Michigan means it lacks the climate-moderating effects of proximity to the Great Lakes. Due to the inland location, the growing season can be as short as 70-80 days as a result. However, Burt Lake does provide some moderation of temperature extremes to the Township.

County-wide the presence of the Great Lakes tends to keep the temperature near the shoreline portions of the county warmer in the winter months and cooler in the summer months than the inland areas. This affects the length of the growing season in the various portions of the county. The lakeshore region of the county may have a growing season of as long as 140 days, whereas the interior portions of the county are limited to a shorter season of typically 70 to 80 days.

The average temperature in the summer months as recorded by the Cheboygan weather station is 65 degrees Fahrenheit, while the winter average is 19 degrees (data from NOAA; 1960 through 1990). The overall annual average temperature for Tuscarora Township is 52 degrees, although variations occur. Historical temperature data illustrates the following county temperature extremes. The highest recorded temperature of 104 degrees (8/6/47) and lowest recorded of 38 degrees below zero (2/6/95).

Precipitation is well distributed throughout the year with the growing season, May to October, receiving an average of 17.3 inches, 61% of the total annual average. Snowfall ranges from 120-130 inches in Tuscarora Township.

Geology

Bedrock underlying the county was formed from an ancient sea, which covered the area some 250-600 million years ago. The bedrock underlying Tuscarora Township was formed during the Middle Devonian ages of the Paleozoic Era. Beneath the surface is gray, thin bedded limestone and shales creating black bituminous limestone filled with heads of coral at the base.

The primary surface geologic features in Tuscarora Township are moraines, course textured glacial till and dune sand. Moraines, linear hilly ridges, were formed by the deposition of unsorted sand, gravel, rock and clay at the margins of a glacier. A moraine represents the former position of a glacier's edge. One such landform can be seen in the southern portion of Tuscarora Township and spreading into the adjacent Mentor Township.

Some areas in the southern portion of Cheboygan County were subjected to the onslaught of rapidly melting waters. The meltwater carried debris as it spread out in a sheetlike formation away from the glaciers. Evidence of the resulting outwash plains and glacial channels can be seen in two prominent sections of Tuscarora Township. One area is located on southeastern shore of Burt Lake, and covers a large part of the township's northeast corner. The other, larger area is located on the southwestern shore of the lake and spreads into neighboring Emmet County.

Topography

The topography of Tuscarora Township is shown in Figure 3-1, with elevations ranging from 577-643 feet above sea level along the shore of Burt Lake to gently rolling hills that reach an elevation of 907-971 feet above sea level. The higher elevations in the Township appear to directly correspond to the areas of outwash plains.

Slope is an important development consideration associated with topographic features. Steep roadway grades, septic field failures, soil erosion and excavation costs are some of the difficulties associated with severe grades. Areas of steep slopes (12 percent and greater) are considered a potential constraint for development. Steep slope areas are identified on Figure 3-3.

Soils and Farmland

One important determinant of land use is the soil's suitability for development. Land uses must correspond to the capacity of the soils on which they occur, and soil suitability for each use should be determined before development occurs.

There are three predominant soil associations located in Tuscarora Township. *Rubicon-Grayling*, commonly called 'jack pine plains', features nearly level to undulating, well-drained sandy soils. *Rubicon-Graycalm-Montcalm*, is typically undulating to hilly, well-drained sandy soils. The *Leelanau-Emmet-Kalkaska* soil association describes undulating to hilly well-drained sandy and loamy soils. Each of these soil associations are considered to be fair for recreational development and fair to good for residential development.

Approximately 13.1 percent of Tuscarora Township is wetland area, comprised of soils which are hydric (wetland) soils or have hydric inclusions, see Figure 3-2. Soils identified as having hydric inclusions are soil types which may have some wetland areas, but can not be determined by the soil type alone. Soils identified as having hydric inclusions must be field checked to verify whether or not wetland areas exist.

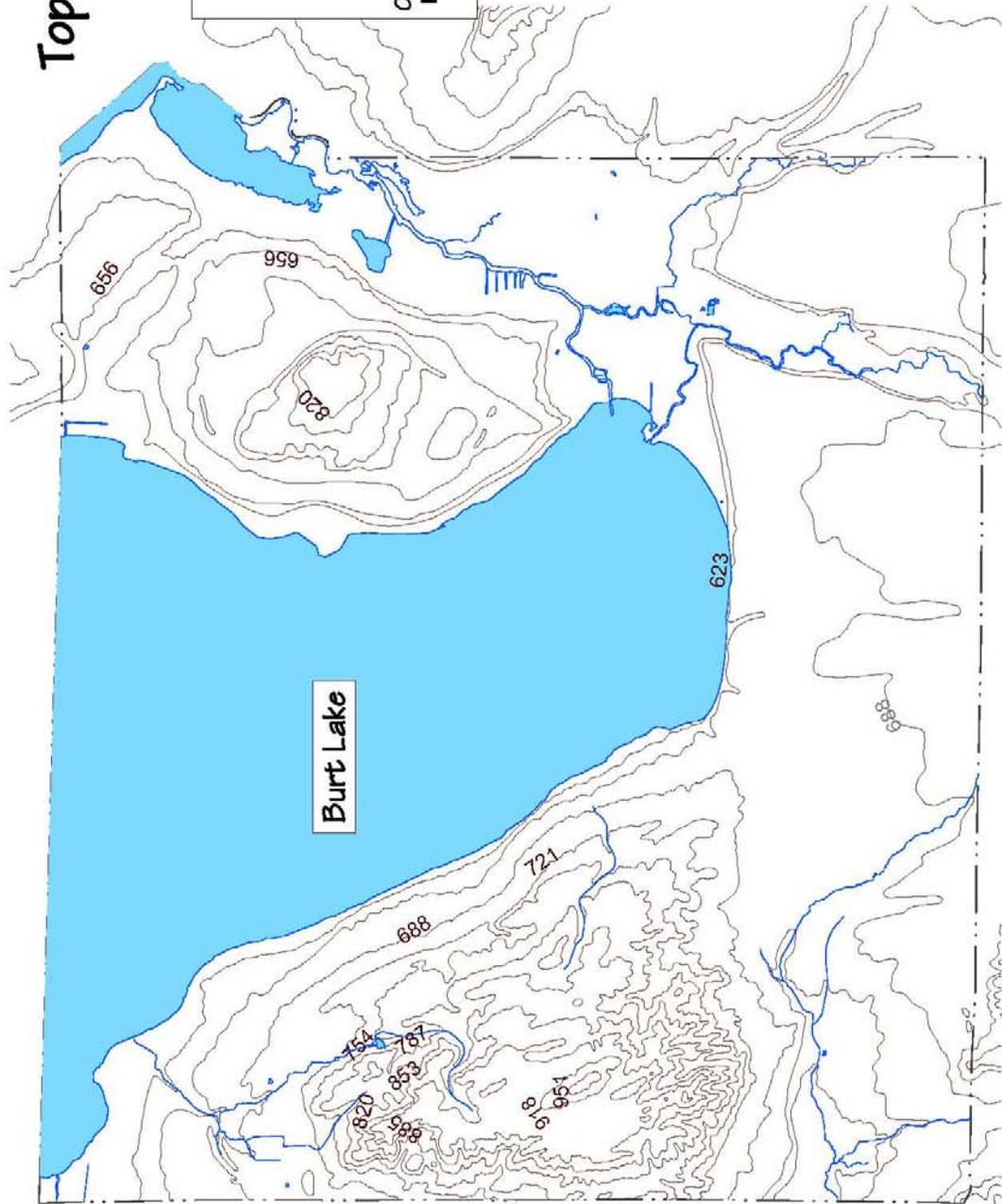
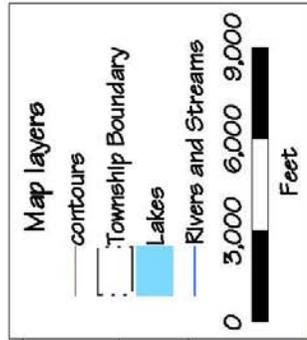
Soils and topography also determine which areas are classified as prime farmland and locally important farmland. The prime farmland classification indicates soils which are ideally suited for agricultural or timber production. Unique farmland is land other than prime that is used for the production of specific high value food and fiber crops. Locally important farmland includes soils which are nearly prime, but are located on slightly steeper grades. These soils can produce high yields when treated and managed according to modern farming methods. With good management these soils may produce yields equal to that of prime soils. Agricultural soils are an important and valuable natural resource within the Township and region. Areas currently being used for agricultural purposes are shown in Figure 4-1.

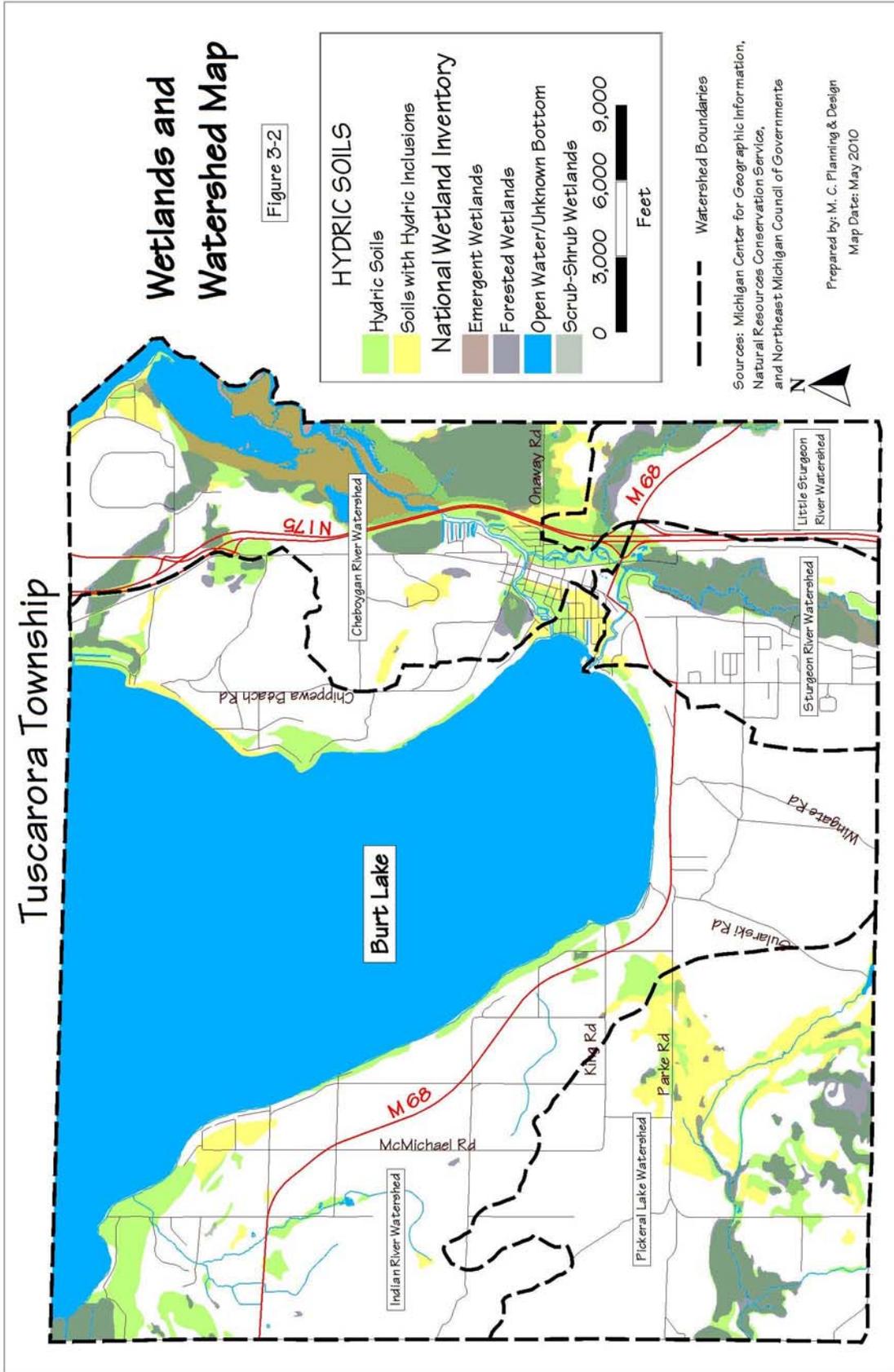
Figure 3-3 identifies areas with soil limitations for septic systems. The limitations identified are either related to slope, hydric soils or both. These limitations do not preclude the development of specific sites. The developer should realize, however, that construction on some soils may be more costly in time and money. A more detailed analysis of the soils by the District Health Department will determine suitability for siting a septic system. Health Department approval is required by State law.

Tuscarora Township

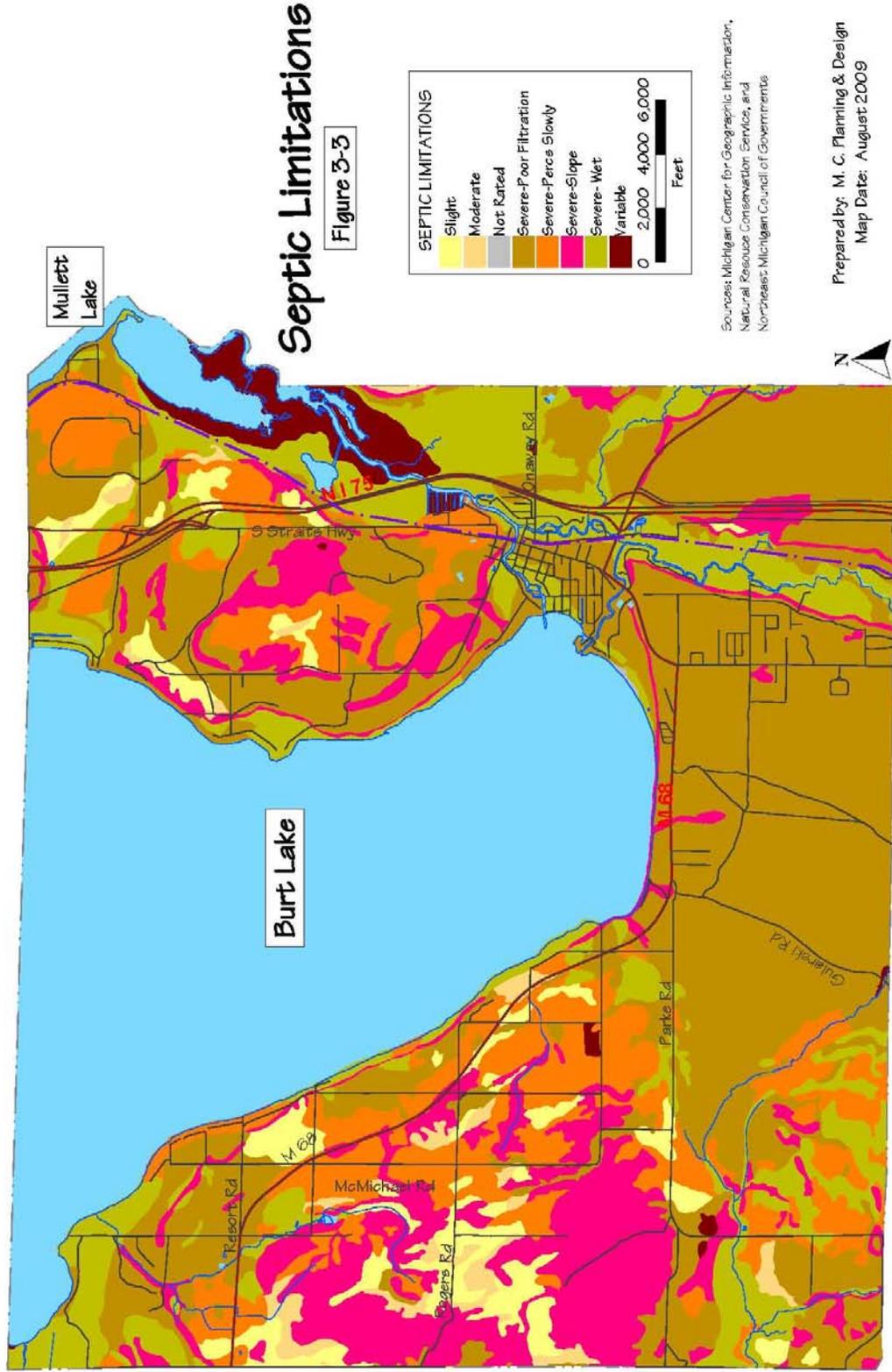
Topographic Map

Figure 3-1





Tuscarora Township



Water Resources

One of the most valuable natural resources of Tuscarora Township is water. The Township is located within the Cheboygan River watershed, which is sub basin of (Lake Huron) watershed, (see Figure 3-2). The waters of Burt Lake provide for a variety of recreational activities such as fishing, boating and swimming.

Major rivers and streams in the township include the Sturgeon River which begins to the south in Otsego County and flows north into Burt Lake near Indian River. The Indian River, which connects Burt Lake to Mullet Lake, serves as a focal point of the Inland Water Route. Encompassing a good deal of northern Michigan, the Inland Water Route stretched from Crooked Lake in Emmet County to the mouth of the Cheboygan River at Lake Huron.

Both groundwater and surface water are vital resources within Tuscarora Township. Because there is no central water distribution system, residents must rely upon individual wells for drinking water. The vulnerability of drinking water aquifers to surface contamination is high in the Township due to the highly permeable soils. Surface waters in lakes and creeks of the Township are an important resource for scenic, recreational and groundwater recharge amenities. It is therefore important that water resources be protected and managed in a manner which would ensure their quality.

Groundwater

Important factors in the evaluation of groundwater are the quantity and quality of the water. The geologic and hydrologic features of the Township provide residents with sufficient water quantities. Water availability will not likely be a factor in limiting growth. In Tuscarora Township, water quality is more of a limiting factor than water supply. Water hardeners, iron content, salinity and septic field contamination are problems encountered in Tuscarora Township. While hardness and salinity are minor problems, high iron content is common throughout the Township. A more significant concern is the potential contamination of wells by failing septic systems, see Chapter 6 for a detailed discussion of this issue.

Surface Water

The major body of water in Tuscarora Township is Burt Lake. Burt Lake is located in the northern half of Tuscarora Township covering over 25 percent of the township. The surface area of the lake is 17,120 acres, with a maximum depth of 73 feet and average depth of 39 feet. Figure 3-3 shows the lakeshore and streams. The lake and its associated tributary streams and creeks offer scenic and recreational amenities to Township residents and visitors. Surface water, including all of the township's lakes and streams, makes up nearly 30 percent of the township's land use types, over 7900 acres. Surface water is the second largest land use for Tuscarora Township. It is extremely important that the quality of these surface waters be protected from the negative impacts of development, such as pollution and loss of scenic views to open water.

The Burt Lake Preservation Association is an active organization of interested citizens and property owners concerned with the protection of Burt Lake.

Lakes, creeks, and wetlands are important for surface drainage, groundwater recharge and wildlife habitat. Alterations to the water features can contribute to flooding, poor water quality, insufficient water supply and loss of valuable wildlife habitat.

Water quality testing includes dissolved oxygen and temperature profiles, pH levels, Total Phosphorus, Nitrate/Nitrite, Conductivity, Chloride, and Water Clarity Secchi Disc readings. Dissolved oxygen (D.O.) is an important factor in determining the lake's water quality, since most aquatic organisms depend on having an abundant supply of oxygen available. The pH level is a measure of the acidity or alkalinity on a scale from zero to 14. Low pH indicates acidity, high pH indicates alkaline conditions and a pH of 7 is neutral. Higher than background levels of Phosphorous results in excessive growth of algae and aquatic plants. Phosphorous is considered the most important nutrient influencing lake water quality. Nitrogen is considered the second most important nutrient affecting water quality. Low concentrations of nitrogen indicate good water quality. Conductivity and chloride are usually not water quality problems, but are valuable indicators of human influence on water quality. The Secchi Disc provides a simple and valuable method to measure water clarity and assess water quality. A weighted disc, attached to an incrementally marked rope, is lowered into the water until it is no longer visible.

Overall the results of the Tip of the Mitt volunteer lake-monitoring program do not indicate a significant change in the water quality of Burt Lake in recent years. The Trophic Status Index Value for Burt Lake has ranged between 32 and 38 between 1992 and 2002. The most recent, in 2002, TSI was 32, which was well within the Oligotrophic range (0-38) and thus Burt Lake is considered to have excellent water quality.

While the current quality of surface waters in Tuscarora Township is good, the threat of potential water pollution from non-point sources is a concern. Proper land use management can help control water quality conditions in Tuscarora Township. Some methods to curb pollution include runoff control measures, septic field corrections, proper treatment of sanitary wastes, and fertilizer application restrictions.

Wetlands and Woodlands

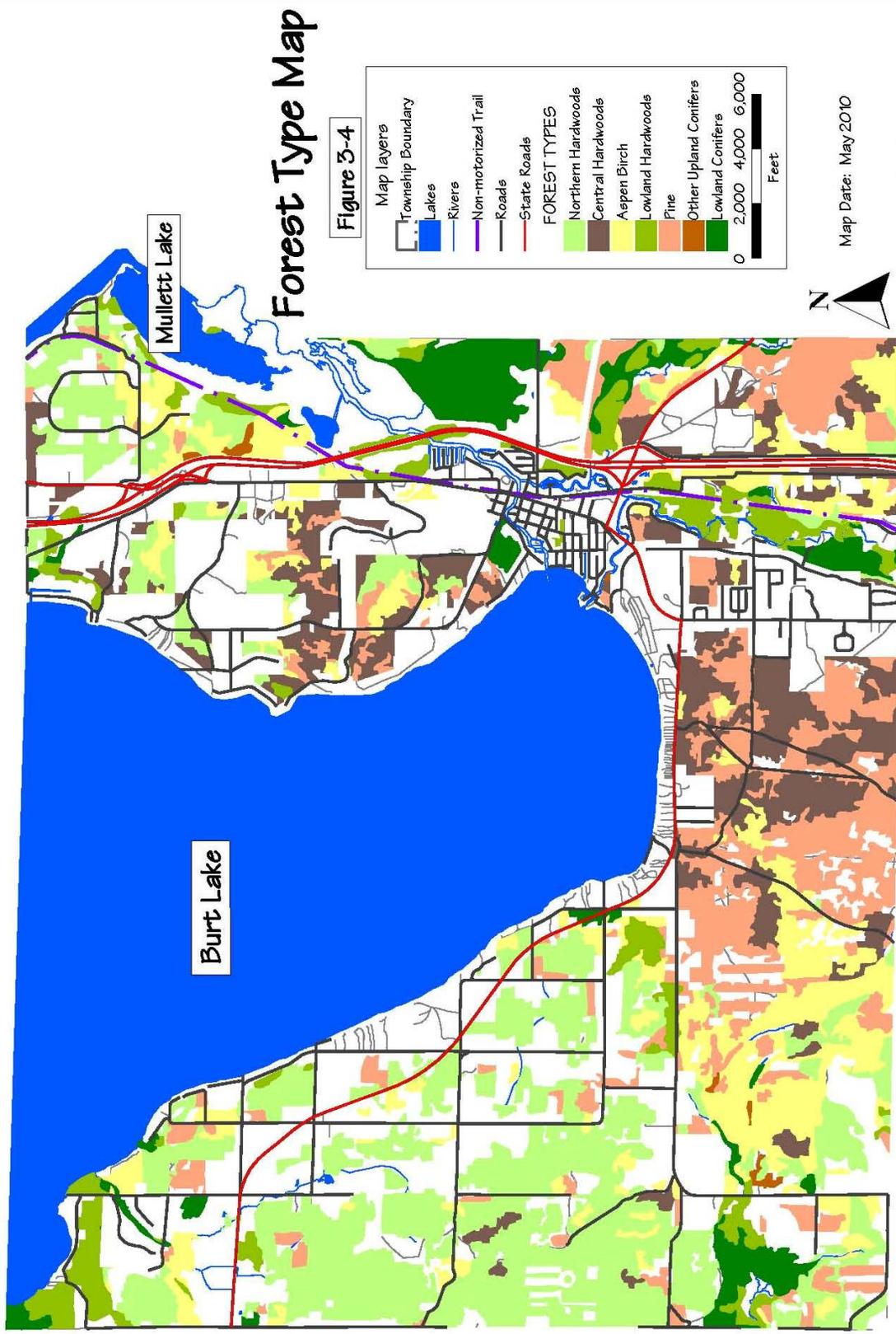
In addition to the scenic characteristics of woodlands, forested areas provide habitat for wildlife, protect the soil from erosion, and act as a buffer from noise on heavily traveled highways. Figures 3-4 and 4-1 show the distribution of forested land within the Township. Forested and wetland areas occur throughout much of Tuscarora Township. Some of these lands are under public ownership and other of these lands are protected in land trusts or with conservation easements.

The dominant forest associations, 70 percent, in Tuscarora Township are northern hardwoods (sugar and red maple, beech, yellow birch, cherry, basswood, white ash and aspen). Upland conifers such as red, jack and scotch pines, white and black spruce, balsam, and douglas fir come in second, covering nearly 8 percent of township land, comprising 18 percent of the forests. The areas identified central hardwood (also known as oak forest), are typically comprised of red oak, white oak, northern pin oak, white pine and aspen. In the lowland or wetland areas, common hardwood species include ash, elm and red maple. The common coniferous associations are cedar, black spruce, white spruce, balsam fir and tamarack in the wetlands.

Fish and Wildlife

Trout, pike, walleye, perch, bass, and bluegill are the primary species found in Burt Lake, creating good recreational fishing opportunities. Burt Lake fishery management strategy includes stocking

Tuscarora Township



and periodic surveying to assess the survival and growth of stocked species and status of fish populations. The lake is stocked periodically with lake sturgeon and rainbow trout by the Michigan Department of Natural Resources and Environment (DNRE). Additionally, multiple species of trout swim the waters of the Sturgeon River, and the Indian River is a spawning ground for Great Lakes' muskellunge.

Habitat for populations of songbirds, wild turkeys, muskrat, mink, and raccoon is also supplied by wetlands within the Township. Predominant mammal species found throughout Tuscarora Township are fox, squirrel, rabbit, raccoons, porcupines, coyotes and deer. Bear are occasionally spotted in the Township. Additionally, the Michigan Monkey-flower is an endangered species both at the state and federal level, and are found in Tuscarora Township. Also, the bald eagle which is a "threatened" species has been sighted in Tuscarora Township. The red-shouldered hawk and common loon are classified "special concern" bird species and are known to nest in Tuscarora Township.

Scenic Features

The dynamic, year round views of Burt Lake from along its shoreline are another important asset to Tuscarora Township. Development which occurs along the Burt Lake shoreline area is visible to many other property owners and boaters on the lake. Just as consideration is given to the impact of development on water quality, the impact of development on visual quality should be considered.

In addition to Burt Lake, wooded areas, farmlands, streams and creeks, rolling topography, and historical structures are all important attributes found within Tuscarora Township. Extensive panoramic views encompassing these features help create the pleasant rural and scenic character appreciated by residents and visitors alike.

Sites of Environmental Contamination

The Michigan Department of Natural Resources and Environment provides for the identification, evaluation and risk assessment of sites of environmental contamination in the State, under part 201 of PA 451 of 1995. The Environmental Response Division (ERD) of the Michigan Department of Natural Resources and Environment (DNRE) is charged with administering this law. A site of environmental contamination, as defined by the ERD, is "a location at which contamination of soil, ground water, surface water, air or other environmental resource is confirmed, or where there is potential for contamination of resources due to site conditions, site use or management practices."

The agency publishes an annual list of environmentally contaminated sites by county, showing the sites by name, Site Assessment Model score, pollutant(s) and site status. As of May 15, 2009, two environmentally contaminated sites were located in Tuscarora Township.

Surface Water Discharge Permits

All point source discharges into surface waters are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit which is issued by the Michigan Water Resources Commission upon recommendation by DNRE, Surface Water Quality Division. Permit requirements generally address discharge limitations, effluent characteristics, monitoring and reporting requirements, along with facility management requirements. Currently two known point source permit holders are listed in Tuscarora Township.

Air Quality

Air Quality is monitored by the Air Quality Division of the Michigan Department of Natural Resources and Environment. Standards have been established as acceptable levels of discharge for any of the following air pollutants: particulate matter, sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, lead, and trace metals. These pollutants are monitored on a continuing basis at selected locations around the state. Monitoring in recent years has shown the level of pollutants in the region to be within the established acceptable standards.

Air discharge permits are required for businesses discharging more than the acceptable level of any of the regulated air pollutants. Within Cheboygan County there is currently one known permit holder, which is not located in Tuscarora Township.

Summary

The review of the natural resources in Tuscarora Township indicate the natural features and agricultural resources are currently relatively unimpaired; however, these resources are extremely vulnerable to change, see Chapters 6 and 7 regarding potential issues. The environmental features of the Township are an important asset to the community, and need continued protection.

CHAPTER 4

Existing Land Use

Pattern of Land Divisions

As development occurs, larger tracts of land are generally broken down into smaller parcels. Therefore, studying the existing pattern of land divisions is one way to analyze the status of land use and development. Land division patterns for Tuscarora Township are discussed below.

The largest land owner in the Township is the State of Michigan with approximately 3,850 acres. The State of Michigan has large areas of contiguous undeveloped land, which are currently being maintained for recreation, conservation and educational purposes.

Subdivisions and small tracts are primarily located along the lakefront of Burt Lake, Mullett Lake and the rivers. Other small tract land divisions are occurring as small parcels in the commercial area of Indian River and along the roads. In terms of land division patterns, it is worth noting that some of the newer residential developments in Tuscarora Township may be created as site condominiums rather than traditional subdivisions. A site condominium does not actually create lots by land division. Therefore, a site condominium project may continue to appear as a large, undivided tract when it has already been converted to relatively dense residential use.

Existing Land Use Statistics and Characteristics

Of Tuscarora Township's total 41.7 square miles of area, the land area is 29.5 square miles, according to US Census information.

The map of existing land use, shown as Figure 4-1, illustrates the distribution of land uses and/or cover types within the Township. The existing land use map is a compilation of data provided by the previous Master Plan, land use mapping available through Michigan Geographic Information, and updating using recent aerial photography and additional field checking.

Table 4-1: Existing Land Use/Land Cover Tuscarora Township	
Land Use Category	2009 Percent of Township
Upland forests	32.7
Water – lakes and rivers	30.3
Residential	12.8
Non-forested uplands	6.3
Lowland forest	5.7
Nonforested wetlands	3.6
Institutional/Recreational	3.0
Industrial/Transportation	2.5
Commercial	1.8
Agricultural	1.3
TOTAL	100
Source: Michigan Resource Information System, Wade-Trim mapping (previous plan), Cheboygan County GIS Department, Michigan Center for Geographic Information, and MCP&D Map Updating and Field Verification.	

Forests and Wetlands

Forests, which include upland hardwoods and conifers, account for 32.7 percent of the Township land area in 2009. Upland forests are the predominant cover type found in the southern and western portions as can be seen in Figure 4-1. Included in the Upland forest area is commercial maple syrup operation, which utilizes approximately 240 acres of forest land in the western portion of the Township. A map depicting the all woodland areas, both upland and lowland forests, is presented in Chapter 3, Figure 3-4.

Wetlands include land that has sufficient water at, or near, the surface to support wetland or aquatic vegetation. These areas are commonly referred to as swamps, marshes, or bogs. Wetland areas may also include land which supports lowland hardwoods and conifers. Wetland information was not verified by field inspection when these maps were compiled. Thus, the areas shown as wetlands by Michigan Resource Information System may not actually meet State and Federal criteria for legally regulated wetlands.

Wetland and lowland forest areas comprise 9.3 percent of the Township in 2009. The lowland forest category is typically comprised of forested wetland areas. As illustrated in Figure 4-1, the most significant portion of the wetlands are located in the northeast portion of the Township mostly around the southern portion of Mullett Lake and northern portion of the Indian River. Wetlands and lowland forests are also prevalent south of Indian River along the Sturgeon River and southeast of Indian River along Crumley Creek. Additional wetlands and lowland forest are scattered in locations throughout the Township which have not been developed.

Water

Surface water accounts for more than 8,000 acres or 30 percent of the Township's total area, due in

large part to portions of Burt Lake, Mullett Lake, the Sturgeon River and other rivers which are located in part within Tuscarora Township, see Figure 4-1.

Residential

As can be seen from Table 4-1 and Figure 4-1, the amount of land being used for residential purposes was 12.8 percent of the township in 2009.

The pattern of residential development within the Township is shown in Figure 4-1. Residential use has been the predominant land use along the lakefront of Burt Lake. Small tract land division concentrations also surround the commercial center of Indian River and south along old US 27, with additional residential areas scattered along the roads throughout the Township.

Nonforested

The nonforested land category consists of upland herbaceous open and shrub land. As shown in Table 4-1, the percent of nonforested land in the Township is 6.3 in 2009. Nonforested lands are well distributed throughout the Township, as shown in Figure 4-1.

Institutional and Recreation

Recreation and institutional lands currently comprise about 3.0 percent of Tuscarora Township. Churches, cemeteries and municipal facilities are included in the institutional portion of this category. The largest land areas in this category include Burt Lake State Park, Indian River Golf Course, Camp Al-Gon-Quian (YMCA/YWCA property), Cooperation Park, and the Little Traverse Conservancy properties. The Cheboygan County Road Commission identified public access sites are shown in Figure 4-1.

Industrial/Transportation/Extractive

A major component of this land use category is I-75 and its corresponding right-of-way. Table 4-1 shows a combined percent for industrial and extractive uses. As of 2009 this land category makes up 2.5 percent of the Township. Also included in this category are transportation and utilities, such as utility line corridors.

Commercial

Table 4-1 shows that the amount of land developed as commercial in Tuscarora Township is 1.8 percent. The locations of the commercially used property are shown in Figure 4-1 and primarily concentrate in the Indian River area, the Industrial park east of the I-75 interchange at M-68, and along old US 27.

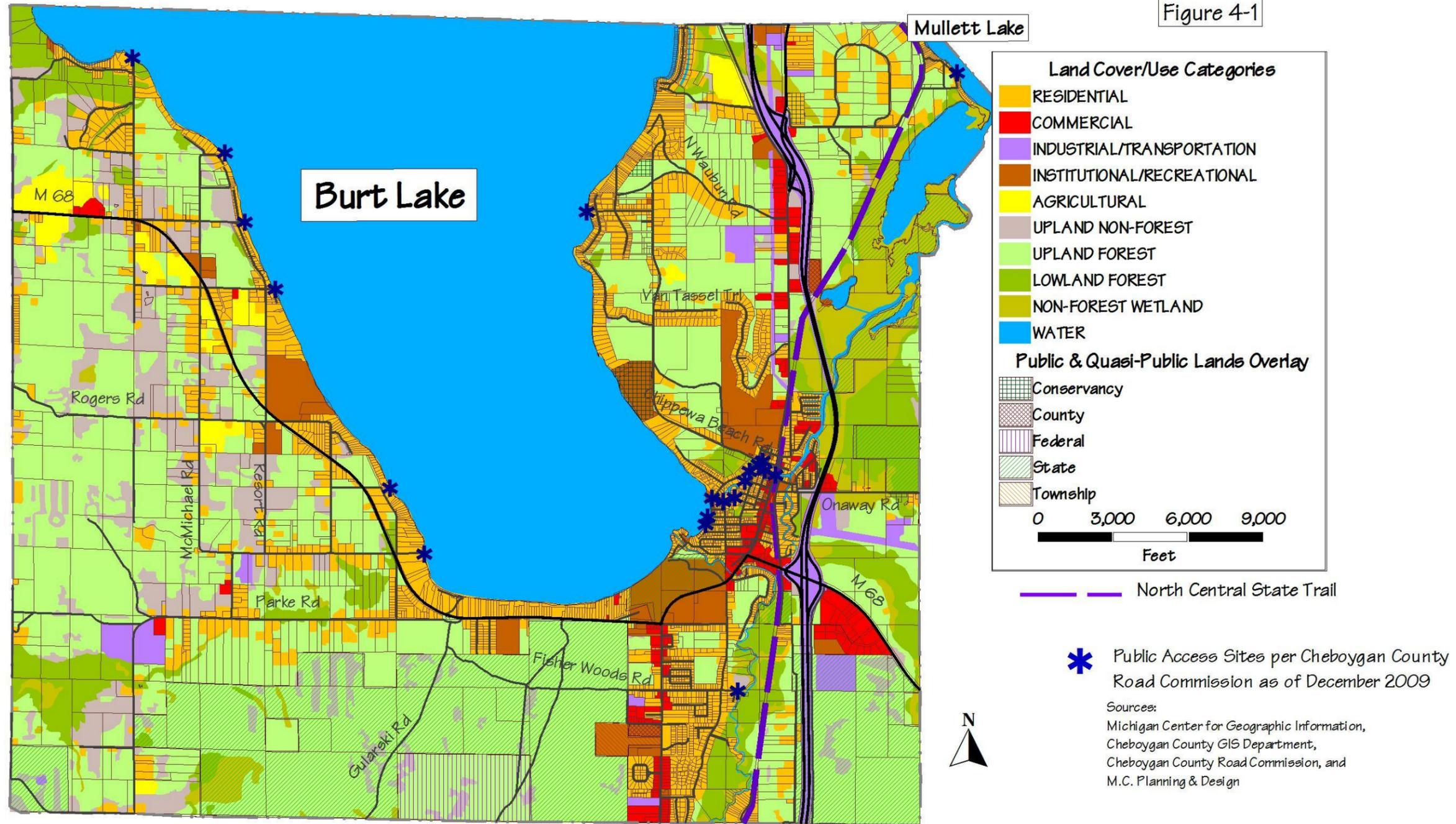
Agricultural

As shown in Table 4-1, actively used agricultural lands are limited and only occupied 1.3 percent of the Township land area in 2009. As is illustrated in Figure 4-1, most of the active agricultural lands occur in the northwestern portion of the Township with a few pockets in other portions of the Township. Fallow fields, those not being actively farmed, are classified as non-forested.

TUSCARORA TOWNSHIP

Existing Land Cover/Use Map

Figure 4-1



CHAPTER 5

Community Services, Facilities and Transportation

Water and Sewage Disposal Systems

Tuscarora Township does not currently have a public drinking water system or a public sewer disposal system. A very limited number of residential developments located around Burt Lake have shared septic systems. A sewer system is currently being planned, and it is hoped that phase one, including the downtown and the industrial park, will be constructed within the next few years. Future phases of the sewer system are anticipated to extend into other portions of the Township, see Chapter 6 for a more detailed discussion of the sewer issues. Currently, most of the Township residents have on-site private wells for domestic drinking water and individual septic systems. Septic systems and wells are regulated by the Cheboygan County Health Department.

Two important determinants for siting a septic system are soil suitability and depth to bedrock. Chapter Three – Natural Resources discusses the geology and soils of the Township.

Solid Waste

Private haulers offer residential weekly curbside trash pick-up within Tuscarora Township. Additionally, the Township offers residents one annual ‘anytime clean-up’ voucher to be used at the Emmet County Drop-off Center on Pleasantview Rd, north of Harbor Springs.

Cheboygan County is offering a county-level recycling program with six drop-off sites located throughout the county, with the closest site located behind Napa Auto on Straits Highway in Indian River. Some Township residents recycle using Emmet County facilities, or utilize the weekly household hazardous waste drop off available at Cheboygan County fairgrounds.

Other Public Utilities

Tuscarora Township residents receive electric service from Consumers Energy, Great Lakes Energy or Presque Isle Electric and Gas Co-operative. Natural gas is available in portions of the Township, primarily along M-68 and Straits Highway. Residents choose from several providers of local and long distance phone service. Cable service, where available, is provided either by Cable Max or by Charter Communications. High speed internet service (DSL) and wireless high speed service is currently available to residents throughout much of the Township.

Police, Fire, Ambulance

The Charlevoix, Cheboygan, Emmet (CCE) Central Dispatch Authority communications agency provides emergency call receipt and dispatch service for Emmet, Charlevoix and Cheboygan Counties. Enhanced-911 telephone service, computer-aided dispatch and a multi-channel radio system are in place, including a system which identifies the actual location from which a cellular phone call is made.

The Tuscarora Township Police Department, Cheboygan County Sheriff and Michigan State Police provide law enforcement services to Tuscarora Township. Fire protection is provided by the Tuscarora Township Fire Department, with a station located in Indian River. Advanced life support (ALS) ambulance service is primarily provided by Cheboygan County Ambulance Service, from a location on Old 27 in Tuscarora Township, and a new facility is expected to open in the industrial park in 2010. Township residents have access to three area hospitals, Cheboygan Memorial Hospital, Otsego Memorial Hospital in Gaylord, and Northern Michigan Regional Hospital in Petoskey.

Recreation

The recreation opportunities in the Township are largely of water-related activities (boating, fishing, swimming, etc). There are numerous public access sites, including sixteen sites on the Sturgeon and Indian Rivers and six on Burt Lake within the Township that are well utilized both in the summer and winter seasons, (see the Township Recreation Plan for more detail). Green Docks and Marina Park are two recently improved public access sites.

The Township owned Co-operation Park provides a wide variety of active recreation facilities including, six baseball fields, a practice field with two diamonds, four tennis courts, a basketball court, horse shoe pits, three soccer fields as well as recent additions of a skateboard park, ice/roller rink with warming hut and a sledding hill. The park also hosts a 5,900 square foot children's playstructure within a fence yard, with a perimeter walking track planned for the future.

Burt Lake State Park, located in the Township offers a large beach and swim area on Burt Lake, boat launch site, a day use/picnic area with a ballfield, and 380 campsites. The area is also served by additional public and private campgrounds, and private camps including Camp Al-Gon-Quian which is owned by the Ann Arbor YMCA/YWCA.

Additionally the Township hosts an extensive system of well used trails for hiking, skiing, biking, ORVS as well as some trails for snowmobiling. The networks of trails in the Township are located on both public and semi-public lands, such as the Burt Lake State Park, State Forest land, and the Little Traverse Conservancy properties. The recently completed non-motorized North Central State Trail passes through Tuscarora Township as it runs from Gaylord to Mackinaw City.

The region is well served by numerous golf courses, including the Indian River Golf Course which is located within the Township and is open to the public.

Additional local recreational facilities are provided by the Inland Lakes Schools.

Municipal Facilities

The Tuscarora Township Municipal Building, located in Indian River, was built in 1994, replacing the original municipal building that was built in 1902. This facility accommodates the Township public meetings, Township office space, the Indian River Area Library and the Tuscarora Township Police Department. The facility is located on a parcel approximately one acre in size. This facility meets the current Township needs and is expected to do so for the foreseeable future.

Schools and Libraries

Tuscarora Township residents are served by the Inland Lakes Schools which operates an elementary school, a middle school, a high school and an alternative education program, all located in Indian River. In the 2009-2010 academic year, the school district is serving 943 students in grades Kindergarten through 12th grades.

Northern Michigan Christian Academy is a private school located on McMichael Road. This school offers a curriculum for grades kindergarten through the twelfth grade, and as of fall 2009 had an enrollment of approximately 85 students. Additionally, many students in the area are home schooled.

Post high school education is available locally at North Central Michigan College (NCMC) in Petoskey and with some classes available in Cheboygan and the M-TEC in Gaylord. NCMC and M-TEC offer two-year associate's degrees and some one-year certificate programs. Additionally, some bachelor's and master's degree programs are offered through agreements with other Michigan universities.

Tuscarora Township is served by the Indian River Area Library located within the Tuscarora Township Municipal Building. Township residents have access to library facilities with a free library card.

Child care / Daycare

The region is served by a variety of day care providers, offering services in either in home-based daycare or child care centers, many of which are located in Cheboygan, Petoskey or Harbor Springs. The Jubilate Child Care Center is located in Tuscarora Township on W. M-68, offering care for children ranging in age from six weeks to 12 years. While the center leases space from the Transfiguration Episcopal Church, the daycare is not religious based, and currently serves 50-60 area children. Additionally, the child care need is served by many smaller private providers.

Private, Civic and Fraternal Organizations

Typically there are many private, civic and fraternal organizations active in Tuscarora Township or in which Tuscarora Township residents are involved that are not specifically affiliated with the Township. The organizations either located in Tuscarora Township or quite active in the Township include the following:

- Downtown Development Authority
- Indian River Chamber of Commerce
- Burt Lake Preservation Association
- Kiwanis Club of Indian River
- Fraternal Order of Eagles 4046
- Veterans of Foreign Wars (VFW)
- Indian River Women's Club
- Snowmobile Club
- An Indian River Christmas
- Masons (Frat. Org. of Freemasons)
- Indian River Lions Club
- Knights of Columbus
- Friends of Inland Lakes Schools, Inc
- Bulldog Group, Inc.
- Inland Lakes Education Foundation

Other organizations are typically regional organizations which have a larger membership and a larger service area than the Township. A listing of such organizations is available from the

Indian River Chamber of Commerce. Many Township residents participate in the organizations available throughout the region.

Churches and Cemeteries

The churches located in Tuscarora Township include Burt Lake Christian Church, Cross in the Woods (Catholic Church), Indian River Baptist Church, Indian River United Methodist Church, Northern Michigan Baptist Bible Church and Academy and Transfiguration Episcopal Church.

There are four cemeteries in the Township, one is associated with Transfiguration Episcopal Church, a Baptist cemetery on McMichael, Oakhill Cemetery is located off Chippewa Beach Road behind the Indian River Golf Course, located on the east side of Burt Lake and the Ohioville Cemetery located off Rogers Road, on the west side of Burt Lake.

Transportation and Road Maintenance

The only interstate route through the Township is I-75, which is the dominant north/south route through the Township. This highway is under the jurisdiction of the Michigan Department of Transportation. The total mileage of I-75 passing through Tuscarora Township is approximately six miles. Other State routes passing through the Township include M-68 a main east-west route and old 27 a north south route.

The Cheboygan County Road Commission provides road maintenance and snow removal services on all public non-seasonal roads within the Township. The Cheboygan County Road Commission main facility is located on S. Straits Hwy in Tuscarora Township.

The Straits Area Regional Ride provides an on-call dial-a-ride bus service within a multi-county area including the counties of Cheboygan, Emmet, Presque Isle, and Otsego.

Commercial passenger air service, as well as air cargo service is available at the Pellston Regional Airport. The area is also served by the Calvin Campbell Municipal Airport, located in the eastern portion of the Township which provides general aviation services and facilities.

CHAPTER 6

Sewer Related Land Use Issues

Sewer System Status – 2012

While Tuscarora Township has commissioned various sewer studies over the years, many of the past proposed projects included the 'greater Indian River' area, and the costs proved to be prohibitive for the property owners. In February 2006, a Tuscarora Township Commercial District Sanitary Sewer Study was prepared by Gourdie-Fraser, which provided guidance for the renewed efforts to bring a sewer to the Indian River Area. This study concentrated primarily on the business corridor along M-68 east of Straits Highway to (and including) the Industrial Park, and the business corridor along Straits Highway south of the Indian River and north of the Sturgeon River.

An ad hoc sewer committee has explored in detail the various options, and ultimately recommended a gravity collection system, which will limit the required on-going maintenance by property owners in the district, and allows the flexibility to incrementally add to the sewer plant if the property owners in other areas of the Township wish to become part of the sewer district in a later phase.

In 2012, a special assessment sewer district was established based on the petition supporting such being signed by approximately 67% of the property owners of the total land area within the proposed district. The proposed sewer district for the construction of the sewer collection system, the area included in phase I is shown in Figure 6-1. Construction bids for the collection system are expected in October 2012, the construction anticipated to be complete and the system operational by August 2013. The operation and maintenance costs will be charged based on usage to those property owners within the district.

The timing of the sewer construction is scheduled to take advantage of a grant and a low interest loan made available to Tuscarora Township by the US Department of Agriculture/Rural Development. Additionally, by coordinating the construction with the Downtown Development Authority's Streetscape project, some of the typical costs associated with the excavation and site restoration associated with the installation of the sewer pipes will be eliminated, thus providing considerable savings for the sewer construction project.

Background and History

The discussion of sewers and/or the need for such in Tuscarora Township is nothing new, and is documented back to 1947, when then Township supervisor Rollie Dagwell received a letter from the Michigan Stream Commission asking to review Indian River's plans for a sewer system. Since that time, there have been people promoting the idea, citing environmental concerns and a chance for the community to grow; as well as people opposing the idea who contend a sewer system would invite too much growth and that the expense would bankrupt the Township.

Over the years Tuscarora Township has had a number of studies conducted by different engineering firms, with the type of sewer system, extent of the district and the associated costs varying with the different studies. The level of opposition typically escalated as the detailed

plans and costs were made known, in the early 1980s one such project was never put to a vote and the original commitment for grant money withdrawn due to the opposition which even included threats of recall for board members. Another discussion was to have a system with Inverness, Burt and Mullett Townships, however before this project gained momentum the combined townships withdrew and the concept was dropped.

In the 1990s, there seemed to be overwhelming support for a proposed sanitary sewer district and another engineering firm retained to do the final engineering and design. Once the plans were complete, petitions put to the residents with the cost per REU (Residential Equivalency Unit) set at \$65, and some businesses were advised they would be assessed more than one REU. The public sentiment seemed to have swung, with letters flowing into the Township stating “No Sewers”, and the petition drive faltered with only 20% of the district in support.

The fees associated with the various engineering studies and designs, which were originally expected to be covered in part by grants and bonds when the sewer project moved forward, were considerable and were the Township’s responsibility when the sewer project did not move forward.

Over the years the need for a sewer system has only increased. Demands on septic systems have changed significantly since the early sewer discussions, with the typical household water usage having increased dramatically due to dishwashers, clothes washers, garbage disposals and more frequent bathing. Businesses that were once operated seasonally, are now operated year-round. The poor soils and high water table often can not handle the increased amount and rate of waste water flow. These factors combined with pending legislation have given rise to renewed interest in sewers. The engineering firm with whom Tuscarora Township has an on-going working relationship, prepared a Commercial District Sanitary Sewer Study in 2006, which was financed by a grant from USDA and funds from the Indian River Chamber of Commerce, and the Burt Lake Preservation Association (no Township dollars). A sewer committee continues to work with the engineering firm on the best ways to move forward on this issue.

Description of Existing Facilities

[source: *Tuscarora Township Commercial District Sanitary Sewer Study*, prepared by Gourdie-Fraser]

Currently there is no centralized sanitary collection system. The community has considered a transition from public on-site systems to a centralized system for nearly a decade. However, the service areas and systems contemplated have proven too costly for the number of users involved.

The homes and businesses in the study area generally are served by on-site septic tanks and drain fields for treatment and disposal. Several properties have on-site mound systems. Many lots in the area are extremely small and the ground water is very close to the surface. The conditions of many of the existing systems are unknown. New homes are required to install systems in compliance with the County Health Codes. Older homes are obligated to update their systems based on the County Health Codes when their systems fail. Consequently, the size, condition and performance of many on-site waste water systems in the downtown area, and the older residential areas are generally unknown, as their systems may not have been upgraded or changed since installation.

Figure 6-1 Proposed Sewer District

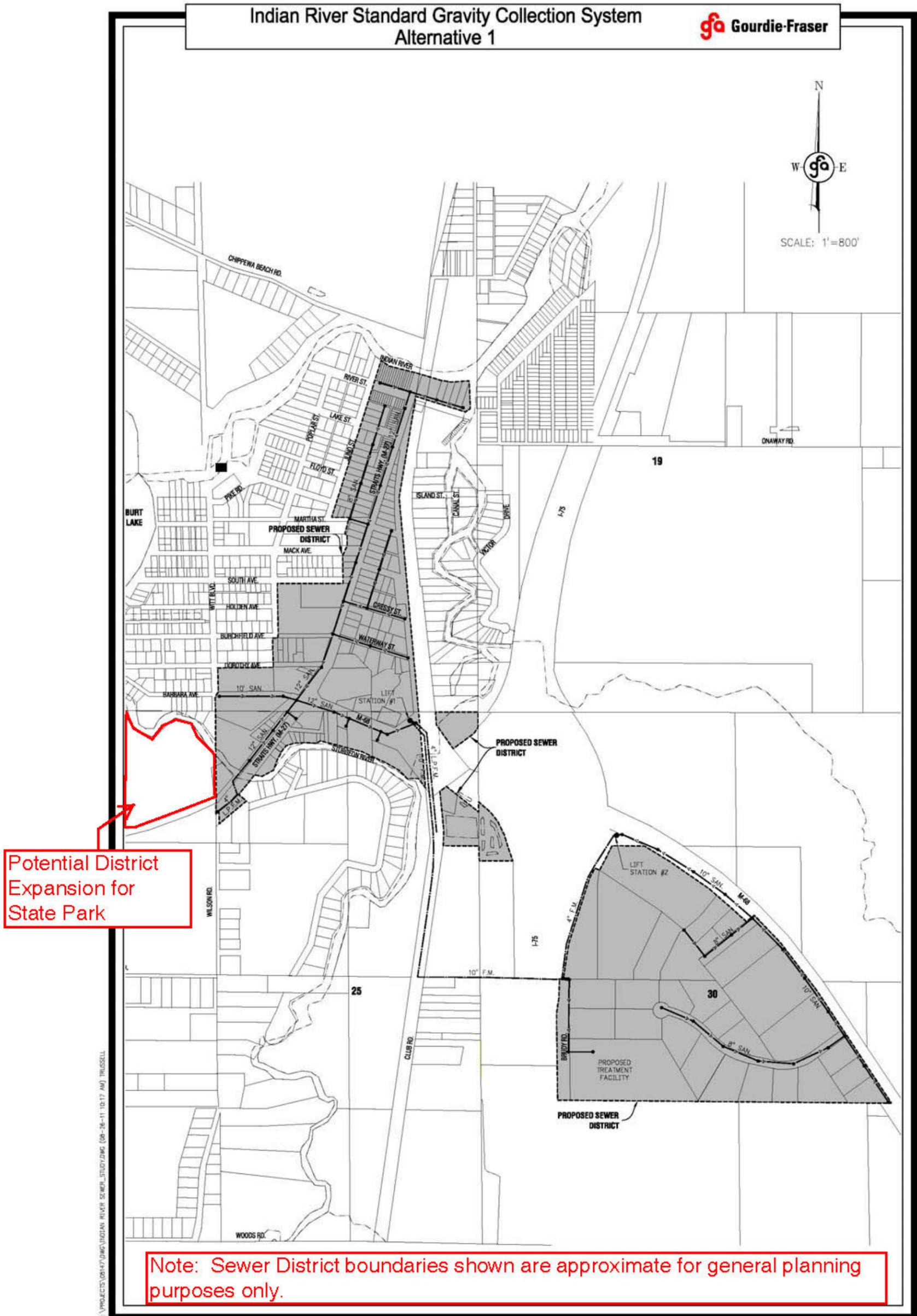


Figure 5

Health and Safety Concerns

[source: *Tuscarora Township Commercial District Sanitary Sewer Study*, prepared by Gourdie-Fraser]

At present, the residences and businesses utilize individual on-site wells for their potable water needs. At this time, the extent of failing septic systems is not known, but many systems are of such an age as to pre-date the time records began being kept in the mid-1970's. Some of the existing systems may be inadequately sized or not functioning properly. Health department officials have indicated that recent dye tests conducted in the area showed dye present in the river after release into a sanitary drain. No direct discharge point was found, but connection to the storm water drainage system was suspected.

Some limitations have been mandated by the Health Department on food services [and other high water uses] within the downtown area. Isolation distances between sanitary discharge/treatment and private potable water wells is a problem in some areas, as there is not currently a municipal water system or sanitary collection system. Private non-commercial use property isolation distance is 50 feet and generally 75 feet for commercial use. Many properties in this study simply do not have the available space to maintain these minimum isolation distances. Should vacant properties sell for development, or uses change to ones which generate higher strength waste, it may be questionable for the Health Department to allow on-site permits. Understandably, this may affect the long-term economic viability of the subject area.

Growth

[source: *Tuscarora Township Commercial District Sanitary Sewer Study*, prepared by Gourdie-Fraser]

Residential growth in the overall area is expected, as well as increased commercial operations to serve the additional population. A factor limiting growth in the subject area has been the lack of a sewer system and available space. Construction of a municipal sanitary system would potentially release property for commercial use [including high water uses such as restaurants, motels, etc.] and may encourage the purchase of property and construction of additional businesses.

CHAPTER 7

Other Significant Land Use Issues

Shoreline Development Issues

Within Tuscarora Township there is an extensive amount of waterfront property, which includes the Indian River spreads, the approximately 12.4 miles of shoreline along Burt Lake, approximately 2.6 miles of the Indian River and approximately 3.1 miles of the Sturgeon River as well as the Little Sturgeon (the actual frontage amount is at least double the mileage of the rivers), within the Township, but varies due to the meandering nature of the river shorelines. While the water is a major attraction for both residents and visitors alike, development and redevelopment of the waterfront properties presents a number of issues to be addressed.

Much of the waterfront property was split or platted into lots pre-zoning, creating lots in some portions of the Township which are too small to adequately accommodate a septic system, drainfield and reserve field as required by the current sanitary code. Additionally, many of the smaller lots were originally developed for occasional vacation use cabins and cottages, which may now be being used year-round, have been expanded or replaced, which combined with lifestyles which are more water-intensive places additional burden on the aging septic systems. The records regarding the older septic systems in the area are limited and due to the costs, most systems are typically not replaced or upgraded until required due to a failure. The septic issues are further complicated in some portions of the Township by the high water table and soil types. (See Chapter 6 for more history on the septic and sewer issues in the Township). Leaking septic systems on waterfront properties can have a major impact on the water quality.

Over the years it has been well established and documented that manicured (and fertilized) lawns down to the water's edge negatively impact water quality as the nutrients from fertilizers runoff into the lake and enhance algae and weed growth. The establishment and enforcement of greenbelt (zoning) provisions along lakeshores and river shorelines, can assist with the filtration of the runoff to reduce the quantity of nutrients entering the water body, as well as provide shoreline stabilization with the root structures of trees and shrubs maintained or planted along the shoreline. Since waterfront properties are typically more expensive properties, and those who own waterfront property are typically concerned about maintaining views of the water, consequently educational campaigns are often needed to gain support for greenbelt provisions which balance the water quality protection with the rights of the property owners. Lake associations typically play an important role in this educational process.

Tuscarora Township residents and visitors have many opportunities to gain lake access even if they do not own waterfront property. The Cheboygan County Road Commission lists 21 road end access sites for pedestrian use, vehicular use or both (shown on Figure 4-1). Of the 21 Road Commission identified public access sites, 11 provide access to Burt Lake, seven provide access to the Indian River, two provide access to the Sturgeon River and one to Mullett Lake. Additionally Tuscarora Township owns and maintains some public recreation access sites (shown on Figure 4-1 and discussed in Chapter 5).

Downtown Indian River – Village Center

The downtown Indian River area is proposed for a compact mixed-use Village Center, which promotes a higher density development with retail commercial activities on the street level, and

residential and office on the upper floors. The inclusion of residential in the upper stories of retail properties typically provides some more affordable housing, increases the pedestrian traffic in the area and provides additional customers to support the downtown businesses. In order to most effectively create an Indian River village center, the area should be served by sewer (see Chapter 6) and minimum lot size and setback requirements revised. Many successful mixed use downtown areas have zero-lot line setbacks, i.e. allowing for construction up to the property line to create the continuous storefront.

Tuscarora Township is currently working with Cheboygan County to designate a portion of the Indian River area to be re-zoned to the recently established Village Center zoning district with some modifications to reduce the potential for new incompatible uses to be established adjacent to one another. The implementation of appropriate planning, zoning and available infrastructure to support the development of a compact mixed-use Village Center can stimulate economic synergistic development and open grant opportunities to the Township through programs such as the Michigan Main Street Program and the Michigan State Housing Authority's programs promoting the development of residential units above commercial retail space.

Recent improvements and consequently increased use of Marina Park in the heart of downtown Indian River is serving as a catalyst for the planning of additional downtown improvement in the near future. Some of the proposed improvements include the replacement of the Straits highway bridge over the Indian River, a proposed streetscape project for the downtown area, as well as the sewer project.

Industrial Park Development

The Industrial Park is located on the east side of I-75 and with the entrance off M-68, Figures 4-1 and 7-1 show the general park location and the park layout respectively. While the park was initially designed and lots laid out in 2000 by the Planning Commission, as of December 2009 natural gas, electric and the road system serving the lots were all in place, but no lots had been developed. Development of the first parcel in the park, (parcel # 6), is planned in 2010 to house a new ambulance station for the Cheboygan County Ambulance Service. In recent years, a portable temporary asphalt facility has located within the industrial park during the construction season.

One of the development limitations which has plagued the Industrial Park is the lack of sewer service. As discussed in Chapter 6, the industrial park is included in the proposed initial phase of the sewer project as currently proposed. Due to the premier location, at the intersection of I-75, the primary N/S interstate highway in Michigan and the main E/W route in northeastern Michigan (M-68), it is anticipated that having sewer available to lots in the industrial park will greatly improve the rate of development of the lots. The property located south of the Industrial Park is state owned land, as shown on Figure 4-1, thus may present opportunities for future expansion when needed.

The Industrial Park building and use restrictions are presented in Figure 7-2.

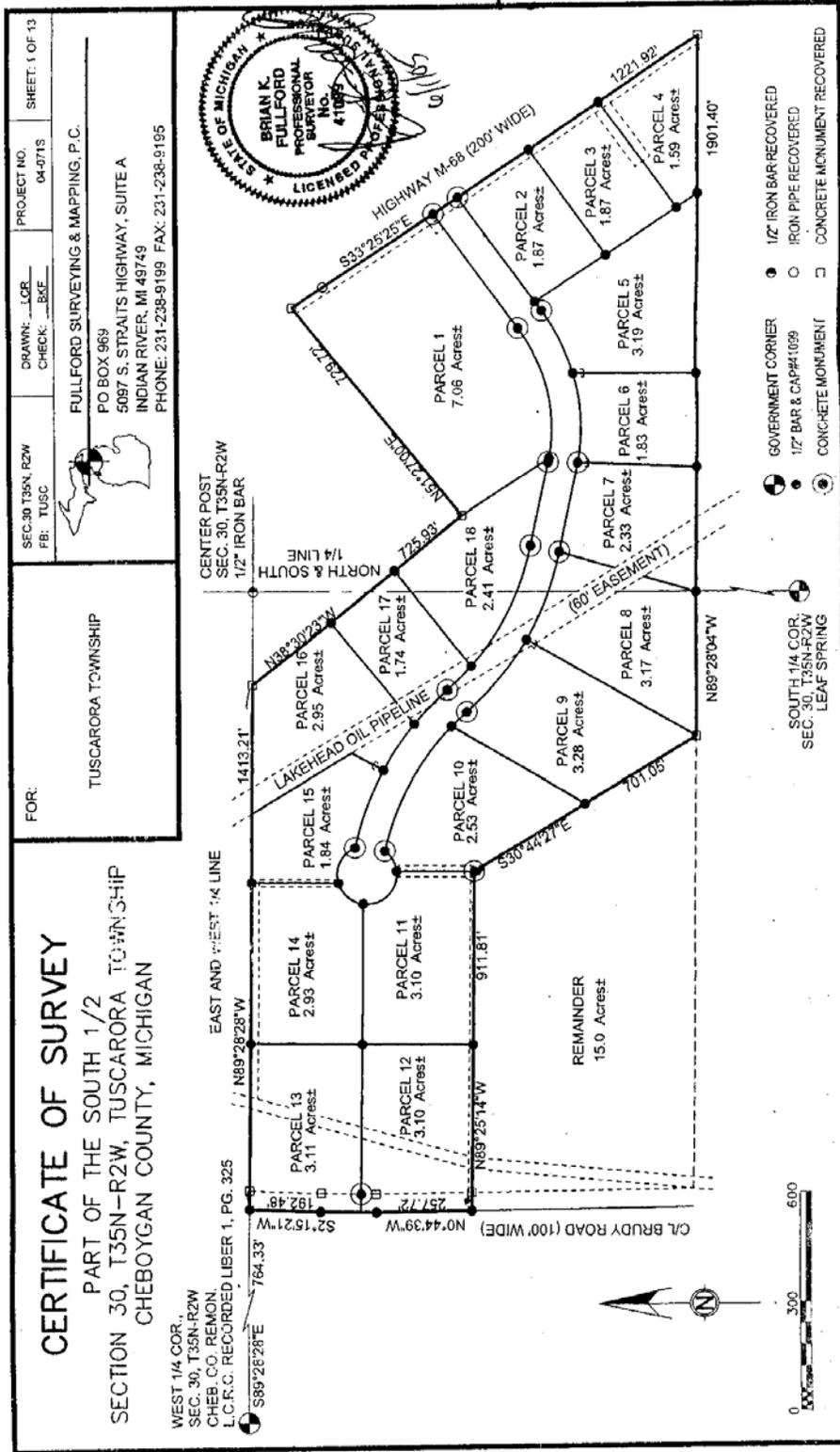


Figure 7-1 Industrial Park layout

Figure 7-2

Industrial Park: Building and Use Restrictions

1. District Health Department No. 4 must approve the proposed use and/or any changes of use prior to development on each site.
2. Disposal of industrial waste is prohibited.
3. A minimum isolation distance of 75 feet must be maintained between all septic tanks, dosing tanks, discharge lines and drainfields to all wells.
4. Adequate site drainage must be provided on each site.
5. Proper barricades must be provided to protect the septic tank and drainfield from damage from traffic, parking, snow removal, etc.
6. Snow removal must be accompanied in a manner to prevent damage to the sewage disposal system. Plowing in the drainfield area or plowing snow onto the drainfield is prohibited.
7. 50 feet submergence of the well screen will be required to provide additional protection to the aquifer.
8. On-site sewage disposal systems must be located in the areas designated on the site plan.
9. Water wells must be located in the areas as designated on the site plan.
10. Permits for the construction of on-site sewage disposal and water systems are required, and are the responsibility of each individual owner.
11. Site plans shall first be reviewed by the Tuscarora Township Commercial Development Committee for compliance with deed restrictions prior to submittal to the Cheboygan County Zoning Department.
12. Tuscarora Township Commerce Park shall consist of 18 individual development lots or parcels. No platted lot may be further divided, with the following exception: A lot may be divided if the property taken from 1 lot is added to an adjacent lot. Parcel means a contiguous area of land under the same ownership. Lot means a measured portion of land described and fixed in the recorded Plat of Tuscarora Township Commerce Park. All resulting parcels shall conform to applicable Zoning Ordinance. In the event a lot is expanded by adding a portion of an adjacent lot or if any adjacent lots are under the same ownership, then all setback requirements shall apply to the exterior lot lines of the combined lots.
13. Minimum Yard Setbacks: Front 50 feet Side 20 feet Rear 20 feet
14. The side and rear setbacks shall be maintained as greenbelt. The greenbelt may consist of lawn, septic system, storm water management facilities, landscaped or remain in a natural condition.
15. Drives shall not be located closer than 25 feet to adjoining parcels, unless the drive is common access shared by the adjoining parcels or lots.
16. All drainage originating on the site as a result of development shall be retained on the site. The 20 foot side and rear setbacks may be utilized for management of storm water runoff.
17. Upon approval of the site plan and zoning department approval, improvements to the site shall be completed within 12 months for structures and 18 months for landscaping after commencing structure construction.
18. Patron parking shall be located in the front or side yards.
19. All drives shall be hard surfaced from the edge of existing bituminous road to the property line or right of way. Drives shall be constructed in accordance with the standard detail for the commercial park.
20. Onsite lighting is permitted provided the lighting consist of wall packs, low intensity landscape lighting or pole mounted lights with fixtures providing 100% horizontal cutoff.
21. Overhead garage type doors will not be permitted on the roadside elevation of any structure.
22. Signs: All signs shall meet the standards and requirements of the DDA (Tuscarora Township Downtown Development Authority).
23. A 10-foot wide landscape buffer is required in the front yard. The 10-foot landscape buffer will begin at the property line (road right of way) and extend 10 feet onto the property. The minimum requirements for the front yard landscape buffer are contained in Article 17.18.4 and Article 17.18.5 of the Cheboygan County Zoning Ordinance. Additional minimum landscaping requirements for the front yard are as follows:
 - A. One deciduous tree and two evergreen trees, plus one additional deciduous and evergreen tree for each 100 feet of road frontage or fraction thereof.
 - B. Shrubs at a rate of one per each tree required.
 - C. Plantings shall be located so as not to obstruct the vision of drivers entering or leaving the site.
 - D. Landscaped areas shall be provided with sufficient water to maintain plants in a healthy condition.
 - E. All planting beds shall be mulched with mulch cover at least 3 inches deep to retain moisture around roots.
24. Unsightly areas as determined by the Cheboygan County Zoning Ordinance or the Tuscarora Township Commercial Development Committee shall be screened with fencing or landscaping.

Blight Concerns/Awareness

As in many rural areas, there are concerns regarding property maintenance and blight both downtown and in the more rural portions of the Township. The Township officials recognize this as an area for continued efforts. Such efforts should include citizen education regarding current regulations (i.e. the existing applicable ordinances -zoning and blight); review of the existing regulations to determine if modifications are needed; as well as enforcement of the existing regulations.

Retention of Large Parcels

The large parcels in the Township provide valuable wildlife habitat and significantly contribute to the natural character of the Township. The State of Michigan is one of the owners of many large parcels. Many of the privately owned large parcels are actively used for agriculture, forestry/forest management, and/or maple syrup production. In order to promote the continued existence of these large parcels, the Township wishes to work with the County to promote some added flexibility in the Zoning Ordinance which would allow for a broader range of allowable uses in these areas, including agricultural-tourism activities, value-added agricultural businesses and agricultural support businesses.

CHAPTER 8

COMMUNITY GOALS AND OBJECTIVES

Introduction

Before a community can actively plan for its future growth and development, it must first set certain goals and objectives that define the boundaries of its needs and aspirations and, thus, establish a basis for Master Plan formulation. In developing community goals and policies, it is important to analyze existing community characteristics, such as: social and economic features, environmental resources, available services and facilities, and existing land use. In addition to examining existing characteristics, another important tool in the development of community goals and policies is to identify community assets, problems and other issues to be addressed.

The following goals (the ultimate purposes or intent of the plan) and objectives (means of attaining community goals) set forth to guide local decision-makers in reviewing future land use proposals are the result of input received during the preparation of the Master Plan update.

Goals and Objectives

Land Use Goal

GOAL:

Maintain an ecologically sound balance between human activities, economic growth and the environment to retain the Township's scenic and rural character, while meeting the needs of the current and future residents.

OBJECTIVES AND ACTION STEPS:

1. Pursue the development of a sewer system to enhance development opportunities in downtown Indian River, while protecting the water quality.
2. Review the county Zoning Ordinance as related to the Township Master Plan, and work cooperatively to amend the County Ordinance as appropriate.
3. Pursue the establishing of downtown Indian River as a mixed-use Village Center.
4. Work with the County to control the location of new development by designating appropriate areas for new residential, commercial, and industrial land uses.
5. Encourage growth and development in and immediately around Indian River.
6. Consistent with smart growth principles and the complete streets initiative, encourage the use of access management standards, non-motorized facilities, appropriate setbacks, retention of green space, buffer zones between differing land uses, screened parking areas, and roadside landscaping; and encourage the retention of open space and scenic vistas with PUD's, clustering, and conservation easements.

Residential Goal

GOAL:

Promote the development of suitable housing opportunities for the varied economic and lifestyle needs of the residents.

OBJECTIVES AND ACTION STEPS:

1. Work with the County to ensure areas are designated as appropriate for all types of residential development compatible with the surrounding natural environment, including single family, multi-family, condominium, low to moderate-income rental complexes, and extended care facilities.
2. Encourage the development of continuous care housing options for the increasing senior population in the area.
3. Encourage participation with Northern Homes and Michigan State Housing Development Authority (MSHDA) programs to rehabilitate substandard housing and to provide needed moderately priced housing in the Township.
4. Preserve the integrity of existing residentially zoned areas by protecting from intrusion of incompatible uses.
5. Work with Cheboygan County to address potential zoning incompatibilities, such as residential uses from locating in areas zoned for agriculture or industrial uses.
6. Require a buffer between Residential uses and other more intensive uses.

Economic Development

GOALS:

Strengthen the local economy through the development and retention of enterprises, which provide employment opportunities

To provide for a full range of commercial facilities and infrastructure which are adequate to serve both the resident and tourist markets.

OBJECTIVES AND ACTION STEPS:

1. Encourage the promotion and development of Indian River area as a business center serving both the local consumer population and sub-regional market base.
2. Encourage the expansion of existing establishments and the establishment of new commercial uses in downtown Indian River.
3. Encourage the development of clustered commercial, light industrial and/or office facilities in industrial park in close proximity to the I-75 interchange
4. Encourage the development of new types of industries and those that are economically associated with the existing industrial base.
5. Provide industry at locations that are easily accessible to the existing transportation network and in areas likely to be served by public utilities.
6. Limit commercial thoroughfare frontage developments to Straits Highway for auto-oriented type businesses and other business uses that are, too large or are otherwise unsuited to location in downtown Indian River.
7. Encourage the implementation of access management standards, including the use of shared driveways and access drives as a means of reducing traffic conflicts along main corridors.
8. Work with the County to ensure appropriate buffers are required to transition between commercial and residential areas.
9. Encourage the development of professional enterprises which offer employment and growth opportunities to the Township's skilled workforce.
10. Encourage the development of local Main Street program in coordination with or through the Downtown Development Authority.
11. Encourage the establishment of home based businesses, especially those which rely primarily on internet based business and/or provide web-based jobs.
12. Promote the Indian River area as an ALL season recreation destination.

Agriculture & Forestry Goal

GOAL:

Acknowledge the importance of agricultural lands and forestry management.

OBJECTIVES AND ACTION STEPS:

1. Recognize that the presence of agricultural and forested lands adds to the scenic and rural character of the Township.
2. Work to provide economically feasible options for continued agricultural and forestry use of lands with prime farmland and forestland soils.
3. Allow for and encourage farmland protection, such as through the transfer of development rights (when available), purchase of development rights, conservation easements and the clustering of non-farm development.
4. Participate in efforts to educate the community regarding agricultural preservation
5. Work to retain and manage existing forestland
6. Promote re-forestation and sound forestry management practices for areas with productive forest soils.
7. Work with County to provide greater zoning flexibility regarding uses of large parcels of land.

Recreation Goal

GOAL:

Provide and maintain recreation lands and facilities for safe access and year-round healthy enjoyment by residents and visitors.

OBJECTIVES AND ACTION STEPS:

1. Maintain an up-to-date recreation plan to address the needs (current and anticipated) and maintenance plan for all recreation trails, facilities and parklands.
2. Promote the use of the North Central State Trail, through the establishment of Marina Park as a designated trailhead.
3. Develop or designate bike/pedestrian routes linking downtown Indian River, the educational facilities, tourist destinations and recreation areas in the Township, including (but not limited to) Inland Lakes Schools and Burt Lake State Park, consistent with a Complete Streets policy.
4. Maintain, improve and expand Township parks and facilities to serve the needs of residents and visitors.
5. Work cooperatively with neighboring townships, Counties and other key stakeholders to establish connecting bike trail or routes, such as between the North Central State Trail and the [currently unimproved] Petoskey to Mackinaw City trail.
6. Promote winter tourism for the area, including snowmobiling, x-country skiing, snowshoeing, and ice fishing.
7. Establish a handicap accessible fishing area, such as the proposed Veterans Pier at DeVoe Park.
8. Promote the accessibility of ORV and Snowmobile trails from the Indian River area.
9. Promote the hunting and fishing opportunities of the area.
10. Seek grant assistance for trail and park improvement projects.

Natural Resource Goal

GOAL:

Protect and preserve groundwater, surface water, woodlands, wetlands, open space, wildlife habitat and steep slopes.

OBJECTIVES AND ACTION STEPS:

1. Pursue the implementation of a municipal sewer system, to protect the water quality of the groundwater and surface water in the area.
2. Work with Cheboygan County to encourage a land use pattern that is oriented to the natural features and water resources of the area by evaluating type and density of proposed developments based on soil suitability; slope of land; potential for ground water and surface water degradation and contamination; compatibility with adjacent land uses; and impacts to sensitive natural areas like wetlands, greenways and wildlife corridors.
3. Encourage the maintenance of natural vegetation adjacent to lakes, streams, and wetlands.
4. Support the strengthening of groundwater protection and stormwater management regulations in the County's zoning ordinance, while encouraging the continued natural use of wetlands as groundwater recharge, stormwater filtering and stormwater holding areas.
5. Promote regulations for development on steeply sloped areas and require erosion control measures where construction is permitted. Require slope stabilization and re-vegetation on disturbed slopes or in extraction areas.
6. Encourage planting of native tree and shrub species when properties are developed.
7. Encourage the retention and management of existing forest lands.

Infrastructure & Public Service Goal

GOAL:

Maintain and improve the Township facilities, programs and systems consistent with the community needs, and the ability to finance the improvements.

OBJECTIVES AND ACTION STEPS:

1. Pursue the implementation of a sewer system in the Indian River area.
2. Develop, adopt and begin implementation of a Complete Streets policy, to improve transportation equity, while encouraging health through physical activity and active transportation.
3. Continue to support the local public safety and emergency services including the local Police Department and Fire Department .
4. Continue to work with the County on road improvements consistent with funding ability and the Township's priority list.
5. Participate in county-wide comprehensive waste management efforts, including emphasis on recycling.
6. Continue to pursue expansion of affordable high-speed communications throughout the entire Township.
7. Monitor and explore the utility expansion needs, as more development occurs.
8. Pursue placement of utilities underground.
9. Work to create a more pedestrian friendly downtown by providing sidewalks, reducing curb cuts and improving parking.
10. Establish and maintain on-going communication with adjacent Townships regarding planned projects in order to facilitate joint projects, such as road improvements where wider shoulders could facilitate a cooperative and coordinated bicycle connector route.

CHAPTER 9

Future Land Use Recommendations

Introduction

The Future Land Use Plan is designed to serve as a guide for future development. If it is to serve the needs of the community and function effectively, it must incorporate several important characteristics.

The Plan must be general

The Plan, by its very nature, cannot be implemented immediately. Therefore, only generalized locations (not necessarily related to property lines) for various land uses are indicated on the Plan.

The Plan should embrace an extended but foreseeable time period

The Plan depicts land uses and community development strategies through the Year 2020.

The Plan should be comprehensive

The Plan, if it is to serve its function as an important decision-making tool, must give adequate consideration to the sensitive relationships which exist between all major land use categories, including environmentally sensitive properties. Development in environmentally sensitive areas should be discouraged by Tuscarora Township. All future development as indicated on the Future Land Use (Figure 9-1) shall occur only as environmental conditions permit and must take into consideration those environmental restrictions as outlined in the Natural Features element of this Plan.

The Plan should acknowledge regional conditions and trends

Tuscarora Township is an integral part of Cheboygan County and the Northeast Michigan Council of Governments, a multi-county regional planning agency; therefore, the Plan should acknowledge the Township's regional context. Through recognition of regional implications, the Township's Future Land Use Plan will be more realistic and reasonable in terms of guiding the future utilization of land resources in the Township.

The Plan must be updated periodically

The Plan may require periodic revisions to reflect significant changes in local, state, or national conditions which cannot be foreseen at this time.

For example, over the past fifty years, several major innovations in land development have occurred. Included among these are: the initiation and expansion of the freeway system; modifications in shopping facilities; relocation of employment centers from the cities to the suburbs; changes in housing preferences; and the declining family size.

It is, of course impossible to predict the type of changes which may occur over the next decade or two. In compliance with the Michigan Planning Enabling Act, a comprehensive review of the Master Plan should be undertaken every five years to provide for an adequate analysis of new conditions and trends, and the plan updated as appropriate. If major re-zoning requests which are in conflict with Plan recommendations are deemed desirable, then, the Plan should be reviewed and amended as appropriate prior to the re-zoning.

Plan Recommendations

Ten (10) future land use categories plus a category for water are proposed for Tuscarora Township. The various land uses are portrayed on Future Land Use Map, Figure 9-1 and in Table 9-1. A discussion of each land use category is presented below.

**Table 9-1
Future Land Use Acreage**

Land Use Category	Area in Acres	Percent in Total
1. Agricultural / Forestry	4,843.9	18.0
2. Single Family Residential	6,436.2	24.0
3. Multi-Family Residential	63.2	0.2
4. Village Mixed Use	33.7	0.1
5. General Commercial	580.9	2.2
6. Industrial	262.4	1.0
7. Park/Recreation	508.4	1.9
8. Conservation Recreation	5,450.0	20.3
9. Public/Semi-Public	279.4	1.0
10. Right-of-Way (I-75)	334.3	1.2
Water	8,045.4	30.0
Total	26,837.8	99.9

*Note: Numbers do not add to 100 due to rounding.

Agricultural/Forestry: This category is intended to preserve the rural character of the Township. A total 4,844 acres (18%) are devoted to this classification. Farming and related agricultural activities and rural housing are the principal uses. Central water and sanitary sewer facilities are not currently available and are not intended to be available during the planning period.

The Agricultural/Forestry area is designed to conserve, stabilize, enhance, and develop farming and related natural resource based activities; to minimize conflicting uses of parcels, lots, buildings, and structures detrimental to, or incompatible with these activities; and to prohibit uses of parcels, lots, buildings, and structures which require streets, drainage, and other public facilities and services of a different type and quantity than those that currently exist. The district, in preserving area for agricultural use, is also designed to prevent proliferation of residential subdivision and urban sprawl.

Agricultural properties may be used for general and specialized farming, including the raising or growing of crops, livestock, poultry, bees, and other farm animals and product. Buildings or structures may be located which are used for the day-to-day operation of such activities. Any lot that is kept as idle cropland should be managed to prevent soil erosion by wind or water and should be free of excessive weeds and shrubs.

Single-family homes that are compatible with the agricultural use and rural character of the district are encouraged. Setting a maximum lot area of one or two acres for each residential unit would help preserve the majority of land in the agricultural area for farm and forest use, and should be considered. Clustering of residential units is another recommended technique to preserve farmland and open space.

Within this future land use category, limited use outdoor recreation/event facilities may be

compatible when located on parcels 40 acres in size or greater depending on the specific use and with site specific conditions required to address potential issues such as site access, traffic, noise, lights, etc and provide safeguards to protect the neighboring property owners. Allowing for such a use could take the form of a property owner initiated conditional rezoning; a Planned Unit Development; or a Special Land Use if allowed for in the Zoning District. The pursuit of this type of use should be explored with the Cheboygan County Department of Planning and Zoning (in coordination with Tuscarora Township) in consideration of the Cheboygan County Zoning Ordinance.

Single Family Residential: This future land use category is intended to serve as the principal residential area of the Township. It covers 6,436 acres or 24.2% of the total Township area.

Relatively high density (lot size less than one acre) homes are encouraged in and around the community of Indian River, while low density homes (minimum one-acre lot) are encouraged in the outlying areas north of Indian River and areas along the Burt Lake shore. In the future, the Township may wish to consider designating two types of residential development areas: one where subdivision or small lot development is anticipated and the other where large-lot or “estate residential” development is to be encouraged. To fully implement this concept, an additional “estate residential” zoning classification may be needed at the County level.

Sanitary sewer facilities should be provided in the Indian River area. Such services to other parts of the district should be extended on an as-needed and cost-effective basis only.

Multi-Family Residential: This area (63 acres or 0.2%) encompasses the existing mobile home parks, apartments, and condominiums. No new land is designated for such uses. However, proposals for new multi-family developments should be approved on a case-by-case basis if certain conditions are met. Compatibility with the surrounding uses, land suitability, access, and availability of public services are among the factors that should be considered in locating multi-family developments.

Village Mixed-Use: This plan identifies two distinctly different areas for future commercial development: “Village Mixed Use” and “General Commercial”. The Village Mixed Use area encompasses the downtown portions of Indian River, generally extending along Straits Highway from the Indian River to South Avenue. As used in this Plan, the term “Village Mixed Use” is not intended to refer to Village as a governmental entity, but rather to communicate the idea of a small-scale Village-like setting for commercial and community activity. The Village Mixed Use concept anticipates a synergistic mix of commercial, civic, residential and recreational uses in close proximity, rather than exclusive commercial use.

Consistent with planning goals developed by the Tuscarora Township Downtown Development Authority, commercial development in the Village Mixed Use area is anticipated to be relatively small-scale, and oriented to pedestrian as well as vehicular access. It will serve both the retail commercial needs of year-round residents, and provide an attractive, unique shopping environment for tourists and seasonal residents. Desirable commercial uses in this area include retail and specialty shops, personal services, commercial and professional offices, restaurants and taverns. Future design features in the Village Mixed Use area ideally will include an integrated and coherent system of sidewalks, landscaping, lighting, seating and signs. Both on and off-street parking will be provided.

It is important to note that residential uses exist immediately adjacent to the Village Mixed Use

area, both to the east and west of Straits Highway. The concept of a Village Mixed Use in downtown Indian River includes and depends upon maintaining vibrant residential neighborhoods within walking distance of downtown. Therefore, the Village Mixed Use area would be suitable for mixed use type of zoning, similar to the Village Center zoning district, currently provided in the Cheboygan County Zoning Ordinance. Provisions for zero lot line (zero setback) should be explored for this area, especially once sewers are available.

Further, it is acknowledged that the Village Mixed Use area also contains a number of important civic uses, such as the Tuscarora Township Hall, Library, Post Office and Chamber of Commerce (Tourist Information) office. Maintaining these civic uses at the heart of downtown is also important to the future success of the Village Mixed Use area.

Because the downtown area is in close proximity to both the Sturgeon and Indian Rivers, and to Burt Lake, recreation is an important existing and future use in the Village Mixed Use area. As part of this Plan, the Tuscarora Township Planning Commission recommends and supports improved recreational opportunities, both public and private, in the downtown area. Two important future recreational opportunities are mentioned here. First, it is recommended that the Township continue to work with the DNRE to promote the North Central State Trail and related recreational uses. This trail has the potential to bring a positive flow of tourist and recreational traffic to and through downtown Indian River. Second, it is recommended that public dockage and water access downtown be maintained and expanded. At present, the Township uses the "Green Dock", as a waterfront walkway and public fishing area. This dock is located just west of Straits Highway, on the north side of Indian River. Additionally, efforts are in progress to site a new public marina in or near downtown, which could provide transient docking for approximately 30 boats. One location under consideration is at the juncture of the Little Sturgeon and the Indian River, just east of Straits Highway.

General Commercial: In contrast to the proposed Village Mixed Use area, the General Commercial area is envisioned to serve primarily vehicular traffic. Most of the General Commercial area is located along the Old 27 corridor, north of the Indian River and between South Avenue and the Sturgeon River. The remainder of the General Commercial area is located on the M-68 corridor, near the I-75 interchange. Parcels in the General Commercial area are generally larger than that available downtown. Therefore, commercial uses requiring proportionately larger scale sites are encouraged to locate in the General Commercial area. Examples of existing appropriate large-scale commercial uses in this area include commercial nursery and landscape material sales, lumber and hardware stores with large storage and inventory areas, and commercial recreation facilities such as miniature golf and boat liveryes. Additionally, highway oriented uses such as vehicle sales, automobile service stations, motels and restaurants are appropriate in the general commercial area. Design standards in this area would ideally include off-street parking, a landscaped setback from the highway, access controls to minimize interference with through traffic on the highway, and highway-oriented sign regulations.

Within this future land use category, limited use outdoor recreation/event facilities may be compatible depending on the specific use and with site specific conditions required to address potential issues such as site access, traffic, noise, lights, etc and provide safeguards to protect the neighboring property owners. The pursuit of this type of use should be explored with the Cheboygan County Department of Planning and Zoning (in coordination with Tuscarora Township) in consideration of the Cheboygan County Zoning Ordinance.

Industrial: The Future Land Use Plan designates one primary location for expanded industrial development: the industrial park area southeast of the I-75 interchange at Indian River. Because of good commercial visibility and proximity to I-75, it is recognized that some of the M-68 frontage property at this location may actually be developed for highway-related commercial use. Therefore, lands adjacent to the existing industrial park have been designated for future industrial use to allow additional industrial expansion space behind the M-68 frontage parcels. The Cheboygan County Road Commission facility located on Old 27 South is also designated Industrial.

Parks & Recreation: The Tuscarora Township is blessed with a large amount of land devoted for recreational purposes. The existing 508 acres (1.9%) is adequate to serve the recreational needs of the current and future population of the Township. Additionally, three recreation sites in the Indian River area which were proposed for improvements in the previous plan, have been completed: a recreational trail on the old rail right-of-way, fishing and waterfront walkway improvements at the Green Dock location and public dockage near downtown, and the juncture of the Little Sturgeon and Indian Rivers, thus increasing the recreational opportunities.

Conservation/Recreation: If Tuscarora Township is to continue to fulfill its role as an attractive place to live and visit, it must actively encourage the preservation of its environmentally sensitive resources.

It is necessary for a Township to have lands available for recreational use, but it is also necessary to have land remain in its natural state untouched by any type of development. The value to the public of certain open areas of the Township is represented in their natural, undeveloped, or unbuilt condition. It is recognized that the principal use of certain open areas is, and ought to be, the preservation, management, and utilization of the natural resource base possessed by these areas.

On privately held parcels in this area, very low density residential and recreational use are appropriate. Assets to be protected include woodlands, wetlands, lands containing protected species, and scenic areas. In doing so, the Township may see a reduction of hardships and financial burdens imposed upon the community through the destruction of resources, improper use of open land or wooded areas, and the periodic flooding of creeks and streams.

Conservation/open space areas are of extreme importance to a community. Not only do they meet the increasing opportunities afforded by increasing leisure time and are a source of health and pleasure, but also serve as a reminder that people can never put their natural habitat back. A total of 5,450.0 acres (20.3%) are designated for conservation/recreation purposes. Mackinaw State Forest covers slightly more than one-half of this acreage; most of the remainder being wetlands along the Sturgeon River west of I-75, and along the Indian River and Mullett Lake, east of I-75, including the ecologically significant Indian River Spreads.

Public/Semi-Public: The Plan designates 279 acres (1.0%) as public/semi-public area. This category includes most of the major existing public or semi-public facilities, such as Campbell Landing Field, schools, churches, and government offices.

Water: Water bodies account for the largest share of the Tuscarora Township area. A total of 8,045 acres (30.0%) is classified as water, which includes portions of Burt Lake, Mullett Lake, and the Indian River. The difference between the acreage of water listed in the previous plan and this plan are due to changes in available mapping data (with the recent data typically

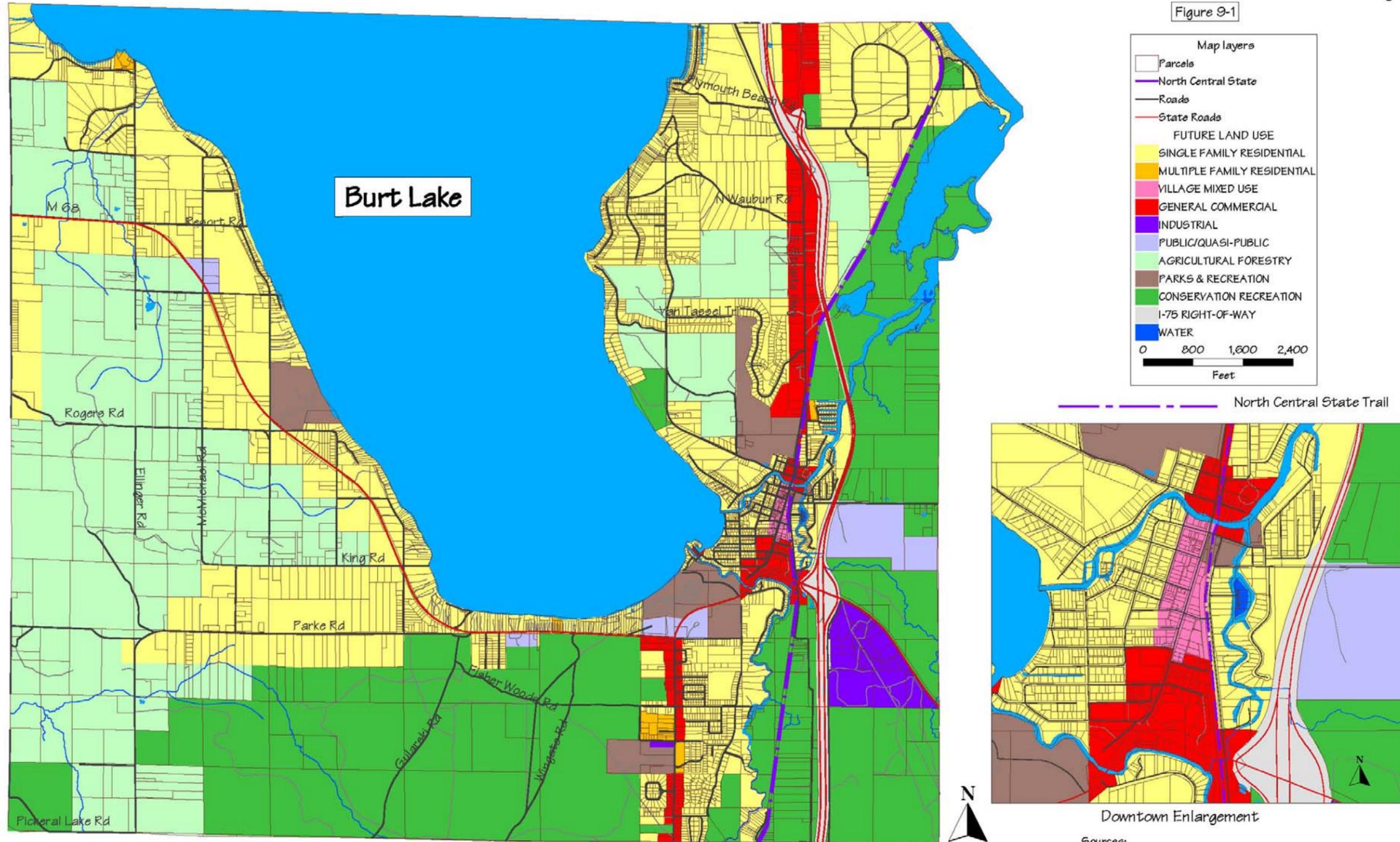
considered more accurate) and mapping techniques.

Right-of-Way: The dedicated rights-of-way of the I-75 corridor within the Township account for the 334 acres, or 1.2% of the total. Due to the variation in road rights-of-way from one road to another, and the relatively limited width of the rights-of-way for most county roads, the other rights-of-way are not separated from the surrounding land uses.

TUSCARORA TOWNSHIP

Future Land Use Map

Figure 9-1



Map Updated Date: September 2012

Sources:
Michigan Center for Geographic Information,
Cheboygan County GIS Department, and
M. C. Planning & Design

CHAPTER 10

Plan Adoption and Implementation

Draft Plan Circulated for Comments

The draft Tuscarora Township 2012 Master Plan Update was transmitted to the Township Board for review and comment in September 2012. The Board authorized distribution of the plan to the adjacent Townships and Counties, as required by statute, on October 2, 2012. Following the Board's authorization, the draft 2012 Master Plan Update was distributed to the adjacent Townships, as well as to the county planning commissions of Cheboygan and Emmet Counties on or before October 11, 2012. No written comments were received.

2010 Master Plan

The draft Tuscarora Township 2010 Master Plan was transmitted to the Township Board for review and comment in April 2010. The Board authorized distribution of the plan to the adjacent Townships and Counties, as required by statute, on May 11, 2010. Following the Board's authorization, the draft 2010 Master Plan was distributed to the adjacent Townships, as well as to the county planning commissions of Cheboygan and Emmet Counties on May 17, 2010. No written comments were received.

Public Hearing

A public hearing on the proposed 2012 Master Plan Update for Tuscarora Township, as required by the Michigan Planning Enabling Act, was held on January 24, 2013. The legally required public hearing notice was published in the Straitsland Resorter newspaper on January 3, 2013, as well as posted on the Township website. A copy of the public hearing notice is reproduced at the end of this chapter. During the review period, the draft 2012 Master Plan Update was available for review on the Township's website, at the Indian River Public Library or by contacting the Township office.

2010 Master Plan

A public hearing on the proposed 2010 Master Plan for Tuscarora Township, as required by the Michigan Planning Enabling Act, was held on August 17, 2010. The legally required public hearing notice was published in the Straitsland Resorter newspaper on July 29, 2010, as well as posted on the Township website. A copy of the public hearing notice is reproduced at the end of this chapter. During the review period, the draft 2010 Master Plan was available for review on the Township's website, at the Indian River Public Library or by contacting the Township office.

The purpose of the respective public hearings was to present the proposed Master Plan (or Update) to accept comments from the public. In addition to the Planning Commission members, twelve other residents of the township attended the public hearing on the 2012 Master Plan Update.

The public hearings began with brief explanation of the planning process. Plan development and subsequent update included several Planning Commission workshop meetings, and input from the Township Board. During the original plan hearing, maps of existing land use, color coded resource, proposed future land use recommendations were presented. During the 2012

Update hearing, the changes were highlighted. The minutes from the public hearing are included in this chapter.

Plan Adoption

The Planning Commission formally adopted by resolution, the Tuscarora Township 2012 Master Plan Update, including all associated maps on January 24, 2013. The Township Board having formally asserted its right to approve or reject the plan on October 2, 2012, formally adopted the Tuscarora Township 2012 Master Plan Update on February 5, 2013.

2010 Master Plan

The Planning Commission formally adopted by resolution, the Tuscarora Township 2010 Master Plan, including all associated maps on October 28, 2010. The Township Board having formally asserted its right to approve or reject the plan on October 5, 2010, formally adopted the Tuscarora Township 2010 Master Plan on November 9, 2010.

Legal Transmittals

Michigan planning law requires that the adopted Master Plan be transmitted to the Township Board, as well as to the adjacent Townships and the County Planning Commission. Copies of these transmittal letters appear at the end of this chapter.

Plan Implementation

A Master Plan is developed to provide a vision of the community's future. It is designed to serve as a tool for decision making on future development proposals. A Master Plan will also act as a guide for future public investment and service decisions, such as the local budget, grant applications, road standards development, community group activities, tax incentive decisions, and administration of utilities and services.

According to the Michigan Zoning Act, comprehensive planning is the legal basis for the development of a zoning ordinance. The Act states: "The zoning ordinance shall be based upon a plan designed to promote the public health, safety and general welfare, to encourage the use of lands in accordance with their character and adaptability, to limit the improper use of land, to conserve natural resources and energy, to meet the needs of the state's residents for food, fiber, and other natural resources, places to residence, recreation, industry, trade, service, and other uses of land, to insure that uses of the land shall be situated in appropriate locations and relationships, to avoid the overcrowding of population, to provide adequate light and air, to lessen congestion on the public roads and streets, to reduce hazards to life and property, to facilitate adequate provision for a system of transportation, sewage disposal, safe and adequate water supply, education, recreation, and other public requirements, and to conserve the expenditure of funds for public improvements and services to conform with the most advantageous uses of land, resources, and properties."

Zoning

The Zoning Ordinance is the most important tool for implementing the Master Plan. Zoning is the authority to regulate private use of land by creating land use zones and applying development standards in various zoning districts. A zoning ordinance regulating land use activities has been in effect in Cheboygan County since 1970. The initial Ordinance was

repealed with the adoption of the current ordinance in 1983, which has since been amended numerous times. For four decades the applicable Zoning Ordinance has regulated the location, density and standards for local development. The County Zoning Ordinance should be re-reviewed to ensure consistency and compatibility of the Ordinance as it applies to Tuscarora Township, especially as related to the goals and the Future Land Use Plan presented in this Master Plan.

Grants and Capital Improvement Plan

A Master Plan can also be used as a guide for future public investment and service decisions, such as the local budget, grant applications and administration of utilities and services. Many communities find it beneficial to prioritize and budget for capital improvement projects, such as infrastructure improvements, park improvements, etc. A Capital Improvements Program (CIP) is one tool which is often used to establish a prioritized schedule for all anticipated capital improvement projects in the community. A CIP includes cost estimates and sources for financing for each project, therefore can serve as both a budgetary and policy document to aid in the implementation of a community's goals defined in the Master Plan. The Planning Commission may develop a CIP in the near future.

2012 Update, Adoption Documentation

Public hearing notice

Page 14 - Straitsland Resorter - Thursday, January 3, 2013

Classifieds / Services

PUBLIC NOTICES

Deadline for legal and public notices, classified and display advertising is Tuesday at noon.

To reserve space for a quarter page or larger, please call the Resorter on Monday, 231-238-7362.

To ensure timely publication of local news and events, please have copy in the Resorter office on Monday.

Ellis Twp. Notice

The Ellis Twp. Board will be meeting on Tuesday, Jan. 8 at 7 p.m. at the Ellis Hall, 9605 Afton Rd.
Sheryl Hilliker, Clerk

Dump Permits

Ellis Twp. residents dump permits are available for \$75 each. You can purchase them at the Ellis Hall on Saturday, Jan. 5 from 10 a.m.-2 p.m. or from S. Hilliker 238-8803 or C. Taglauer 525-8468.

Notice

Walker Township Treasurer will be at the town hall on Friday, Dec. 28 from 9 a.m. to 5 p.m. accepting tax payments.
Dan O'Henley, Treasurer
51-2tc

Notice

Ellis Township Treasurer will be at her home at 10397 Munger Road, Afton, MI 49705 to collect 2012 taxes between 8 a.m. & 4 p.m. on Friday, December 28, 2012. Any questions call 231-525-8468.
51-2tc

Mullett Township
News & Views
mulletttownship.blogspot.com

**Tuscarora Township Public Hearing
Master Plan Amendment**

The Tuscarora Township Planning Commission will hold a public hearing on a proposed Tuscarora Township Master Plan Amendment. The public hearing on this proposed Master Plan Amendment will begin at 7:00 p.m. on Thursday, January 24, 2013, in the Tuscarora Township Hall at 3546 S. Straits Hwy., Indian River.

All interested parties are invited to attend the hearing and comment on the proposed Master Plan Amendment for Tuscarora Township. The proposed Master Plan Amendment is available on-line at (<http://www.tuscaroratwp.com/notices.html>). Additionally, hard copies can be viewed at the Township offices or at the Indian River Area Library. For additional information, contact Susan Fisher, Tuscarora Township Clerk at (231) 238-0970. Written comments may be submitted in advance of the public hearing to: Susan Fisher, P.O. Box 220, Indian River, MI 49749.

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ECONOMICAL TO
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231-238-7362

Copy of Planning Commission Public Hearing minutes

MINUTES OF THE PUBLIC HEARING OF THE
TUSCARORA TOWNSHIP PLANNING COMMISSION
Thursday, January 24, 2013

Meeting called to order at 7:00 p.m. by Mike Cherveney.

Members Present: Kelly Ashford, Dave Barton, Denny Darst, Mike Cherveney, Jim MacLaren, Craig Waldron
Members Absent: Mike Vizina

12 citizens present.

Introduction and agenda by Mike Cherveney identifying three points of coverage for the meeting:

- Update Master Plan to Include 2010 Census data
- Sewer District project update
- Griswald Mountain changed back to Agricultural/Forestry

The purpose of the meeting is to receive public input on above topics so that plan can be forwarded to County.

Mary Campbell explained the changes to the plan and identified the website where complete Plan may be reviewed. That plan has been available on the website since October, 2012. Additionally, the County has reviewed and is in agreement and is in process of putting together a letter to Tuscarora Township confirming their agreement.

As background Mary explained the legal description of a Master Plan: it is a policy document, legal foundation of zoning, background information and a look forward with goals and objectives with resident input.

Changes reviewed:

- Chapter 2: Population change from 2000-2010, lost population in parallel with state population migration. No significant change in seasonal population. State Equalized Value has seen a decrease.
- Chapters 3-5: No change – Mary pointed out currently “land use and land cover map, not zoning map.
- Chapter 6: Updated sewer description and map of footprint to now include State Park into the district
- Future Land Use: Purple on existing map is now changed to Agricultural/Forestry (Griswald Mountain). Mary reviewed definition of Agricultural/Forestry.

Public comments and questions:

- Even if map is use, zoning people grant future use zoning based on that legend?
- Is future land use map accurate?
- What is the relation of Tuscarora Master Plan to Cheboygan County Plan?

Mike Cherveney explained that future use of the Griswald Mountain property will be covered in a public hearing on February 28, 2013. The meeting will be adequately published in advance.

Craig Waldron moved to close the public comment portion of meeting. Mike Cherveney seconded and the motion carried.

Waldron moved that one change be made to Page 9-2: Western 1/3 and change to preserve rural character of the Township.

Waldron moved to adopt the Tuscarora Township Updated 2012 Master Plan, including all the associated maps, with changes. Mike Cherveney seconded and a roll call vote was taken: MacLaren, yes; Barton, yes; Ashford, yes; Waldron, yes; Darst, yes; Cherveney, yes; Vizina absent.

Mary will email to Karen Pung the resolution for recording.

Craig Waldron moved to adjourn at 8:05 p.m, Mike Cherveney seconded and the motion carried.

Respectfully submitted,

Karen Pung, Deputy Clerk/PC Recording Secretary
Tuscarora Township Planning Commission

Board Right to Approve or Reject

TUSCARORA TOWNSHIP
3545 S Straits Hwy
Indian River, MI 49749

Authorize Distribution of, and Right to Approve or Reject the Tuscarora Township Master Plan 2012 Update

At a regular meeting of the Tuscarora Township Board of Trustees, Cheboygan County, Michigan, held at the Tuscarora Township Hall on the 2nd day of October, 2012, 7:00 PM,

Present: McGinnis, Balazovic, Ridley, Fisher, Waldron
Absent: None

The following resolution was offered by Trustee McGinnis and supported by Trustee Waldron.

WHEREAS, the Township Planning Commission recommends, distribution of the Master Plan 2012 Update to the surrounding Townships, and the Counties for the required comment period, and make the plans available for public review during this period in accordance with the Michigan Planning Enabling Act (PA 33 of 2008, as amended), and

WHEREAS, the Michigan Planning Enabling Act (PA 33 of 2008, as amended) provides for the Township Board to assert its right to approve or reject the plan, now

THEREFORE, BE IT RESOLVED, that the Tuscarora Township Board authorizes distribution of the Master Plan 2012 Update as required, and

BE IT FURTHER RESOLVED, that the Tuscarora Township Board hereby asserts its right to exercise final approval or rejection of the Tuscarora Township Master Plan 2012 Update.

ADOPTED by roll-call vote as follows:

AYES: McGinnis, Balazovic, Ridley, Fisher, Waldron

NAYS: None

ABSENT: None

RESOLUTION DECLARED ADOPTED

STATE OF MICHIGAN)
)
- COUNTY OF CHEBOYGAN)

I, Susan Fisher, Clerk of Tuscarora Township, Cheboygan County, Michigan, do hereby certify that the foregoing is a true and complete copy of a resolution adopted by the Township Board at a meeting held on the 2nd day of October, 2012, the original of which is on file in my office. Public notice of said meeting was given pursuant to and in compliance with Act 267, Public Acts of Michigan 1976, as amended.


Susan Fisher, Tuscarora Township Clerk


Date

Tuscarora Township Planning Commission

Resolution

WHEREAS, the Tuscarora Township Planning Commission desires to adopt an updated 2012 master plan and has made the necessary inquiries, investigations and surveys of the appropriate resources of the township; and

WHEREAS, the updated 2012 master plan will promote the public health, safety and general welfare; to encourage the use of resources in accordance with their character and adaptability; to avoid the overcrowding of land by buildings or people; to lessen congestion on public roads and streets; to facilitate provision for a system of transportation, sewage disposal, safe and adequate water supply, recreation and other public improvements; and consider the character of the township and its suitability for particular uses judged in terms of such factors as the trend in land and population development; and

WHEREAS, the Tuscarora Township Planning Commission has noticed and conducted a public hearing in accordance with the requirements of the Michigan Planning Enabling Act (Public Act 33 of 2008, as amended), said hearing was held on January 24, 2013, following distribution of the draft plan to the planning commissions of the adjacent townships, Cheboygan County and Emmet County on or before October 11, 2012.

NOW, THEREFORE, BE IT RESOLVED, that the Tuscarora Township Planning Commission hereby adopts the Tuscarora Township 2012 Master Plan Update, including all the associated maps.

YEAS: Ashford, Barton, Cherveney, Darst, MacLaren, Waldron

NAYS: None

ABSENT: Vizina

RESOLUTION DECLARED ADOPTED.

I certify that the foregoing resolution was adopted by the Tuscarora Township Planning Commission at its meeting on January 24, 2013.


Karen Pung, Deputy Clerk/ PC Recording Secretary
Tuscarora Township Planning Commission

Jan. 24, 2013
Date

MINUTES OF THE REGULAR MEETING OF THE
TUSCARORA TOWNSHIP BOARD
February 5, 2013

Meeting called to order at 7:00 pm by Supervisor Ridley.

Members Present: McGinnis, Balazovic, Ridley, Waldron, Fisher
Members Absent: None
31 citizens were in attendance.

Treasurer Balazovic moved and Trustee Waldron seconded to approve the January 8th, regular meeting minutes as presented and the January 18th special meeting with the following correction: "Members Present: McGinnis, Balazovic, Fisher, Waldron. Members Absent: None". Motion carried.

Clerk Fisher moved and Trustee Waldron seconded to adopt the agenda as presented.

Police Report: Chief Wagner recommends looking at an ordinance that prohibits snowmobile use on sidewalks for next winter. He has had quite a few problems this year with keeping snowmobilers off the sidewalk.

Committee reports:

Marina Park: Marina Park approved a contract with a Landscape Architect for the Trailhead project. **DDA:** We received a \$299,500 grant for the streetscape project through the CCRC. **Parks Commission:** Been busy with the ice rink and plowing snow. The ice rink and the sledding hill are being well used. **Beautification:** No report. **Planning Commission:** On January 24th a public hearing was held to receive public comment on the 2012 Master Plan Update. The Planning Commission has been asked to sponsor a public hearing on February 28th to receive public comment for the proposed motocross race track. **West Side Road End:** The first meeting of the new committee will be within the next couple of weeks. The dock permit has been received for Ellinger Road.

Airport Manager's report: Other than plowing snow, nothing new to report. Only had to shut the runway down one time and that was due to mechanical problems, not snow.

Treasurer's report: The general accounts have \$895,336.88; the tax accounts have \$460,772.54 and this is with interest.

Correspondence:

1. We are in receipt of a Stipulated Order of Dismissal on the civil case against Tuscarora Township, the DDA, and the Committee to bring Wastewater Treatment, Mike Ridley, Craig Waldron and Susan Fisher.
2. An email from Kathy Swanson inquiring as to what legal steps have been taken, or do you anticipate taking to use township owned lands in the development of the proposed sewer district. In 1994 the Industrial Park was reconfigured; at that time 15 acres was set aside to possibly be used for a wastewater treatment facility.

Dennis Burwell provided an update on the fundraising efforts for Veterans Pier. The projected cost of the Pier is \$549,900 of which we have received a 70% MDNR Trust Fund Grant - \$384,930. The Committee has raised \$100,085, with \$51,000 coming from Burt Lake Preservation, 39% is still needed. The goal is to raise the balance by this summer and begin the project fall, 2013.

Clerk Fisher moved to approve the Sewer Grant of Easement for parcel 162-030-300-001-21 in the industrial park. Trustee McGinnis seconded and the motion carried.

A motion by Trustee Waldron to grant the Top O Michigan Outboard Racing Club's request for a waiver of the no wake ordinance on August 17th and August 18th, 2013 for the power boat races was seconded by Trustee McGinnis and the motion carried unanimously.

Treasurer Balazovic moved to approve the cemetery rates for 2013. Opening and closing rates remained the same except for winter cremains and to add a \$40 fee for Bruce to mark where foundations are to be placed if they do not want to purchase one from him. Trustee McGinnis seconded and the motion carried with five ayes.

A resolution was read by Supervisor Ridley to approve the 2012 Master Plan Update including all associated charts and maps. A motion was made by Trustee Waldron to adopt the resolution, Trustee McGinnis seconded the motion and a roll call vote was taken: McGinnis, yes; Balazovic, yes; Ridley, yes; Fisher, yes; Waldron, yes.

Trustee McGinnis and Treasurer Balazovic reviewed the sessions they attended at the 2013 MTA Conference. One of the items McGinnis brought back was information on healthcare and the changes that will be taking place. Balazovic received information that will benefit the Parks Commission on setting user rates.

Citizen comments: Public comments began at 7:28 p.m. Comments were received from seven persons. Comments ended at 7:49 p.m.

Trustee Waldron moved to pay the bills. Trustee McGinnis seconded and it carried unanimously.

Trustee Waldron moved to adjourn at 7:53 p.m.

Respectfully submitted,
Susan L. Fisher, Clerk

Michael Ridley, Supervisor

Board Resolution to Approve

RESOLUTION

Tuscarora Township Master Plan 2012 Update Approval

At a regular meeting of the Township Board of Tuscarora Township, Cheboygan County, Michigan, held at the Tuscarora Township Hall on the 5th day of February, 2013, at 7:00 p.m.

Present: McGinnis, Balazovic, Ridley, Fisher, Waldron

Absent: None

The following resolution was offered by Trustee Waldron and supported by Trustee McGinnis.

WHEREAS, the Tuscarora Township Planning Commission adopted the Tuscarora Township Master Plan 2012 Update at its meeting on January 24, 2012, following properly noticed public hearing in accordance with the Michigan Planning Enabling Act (PA 33 of 2008, as amended), and following distribution of the draft plan to planning commissions of the adjacent townships and to the Cheboygan and Emmet County Planning Commissions; and

WHEREAS, the Tuscarora Township Board on October 2, 2012, asserted its right to approve or reject the plan in accordance with the Michigan Planning Enabling Act (PA 33 of 2008, as amended);

NOW, THEREFORE, BE IT RESOLVED, that the Tuscarora Township Board hereby approves the Tuscarora Township 2012 Master Plan Update, including all associated charts and maps.

ADOPTED by roll-call vote as follows:

AYES: McGinnis, yes; Balazovic, yes; Ridley, yes; Fisher, yes; Waldron, yes

NAYS: None

ABSENT: None

RESOLUTION DECLARED ADOPTED.

STATE OF MICHIGAN)
)
COUNTY OF CHEBOYGAN)

I, Susan Fisher, Clerk of Tuscarora Township, Cheboygan County, Michigan, do hereby certify that the foregoing is a true and complete copy of a resolution adopted by the Tuscarora Township Board at a meeting held on the 5th day of February, 2013, the original of which is on file in my office. Public notice of said meeting was given pursuant to and in compliance with Act 267, Public Acts of Michigan 1976, as amended.


Susan Fisher, Tuscarora Township Clerk

APPENDIX

PLANNING CONCEPTS INFORMATION

- Principles of Smart Growth
- Complete Streets Vocabulary

Principles of Smart Growth

- [Create Range of Housing Opportunities and Choices](#)
Providing quality housing for people of all income levels is an integral component in any smart growth strategy.
- [Create Walkable Neighborhoods](#)
Walkable communities are desirable places to live, work, learn, worship and play, and therefore a key component of smart growth.
- [Encourage Community and Stakeholder Collaboration](#)
Growth can create great places to live, work and play -- if it responds to a community's own sense of how and where it wants to grow.
- [Foster Distinctive, Attractive Communities with a Strong Sense of Place](#)
Smart growth encourages communities to craft a vision and set standards for development and construction which respond to community values of architectural beauty and distinctiveness, as well as expanded choices in housing and transportation.
- [Make Development Decisions Predictable, Fair and Cost Effective](#)
For a community to be successful in implementing smart growth, it must be embraced by the private sector.
- [Mix Land Uses](#)
Smart growth supports the integration of mixed land uses into communities as a critical component of achieving better places to live.
- [Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Areas](#)
Open space preservation supports smart growth goals by bolstering local economies, preserving critical environmental areas, improving our communities quality of life, and guiding new growth into existing communities.
- [Provide a Variety of Transportation Choices](#)
Providing people with more choices in housing, shopping, communities, and transportation is a key aim of smart growth.
- [Strengthen and Direct Development Towards Existing Communities](#)
Smart growth directs development towards existing communities already served by infrastructure, seeking to utilize the resources that existing neighborhoods offer, and conserve open space and irreplaceable natural resources on the urban fringe.
- [Take Advantage of Compact Building Design](#)
Smart growth provides a means for communities to incorporate more compact building design as an alternative to conventional, land consumptive development.

Complete Streets Vocabulary

The following are generally accepted planning definitions for some common phrases that may come up in a Complete Streets conversation.

Complete Streets: are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street.

Complete Streets Policy: an official government plan, at any level, that mandates the inclusion of complete streets in transportation and other infrastructure planning.

Non-Motorized Network: the existing infrastructure for non-motorized transportation, including sidewalks, bike-lanes, mixed-use paths, public transportation (buses, subways, light-rail), and bike routes.

Non-Motorized Network Plan: a plan, generally completed at the local level, that provides a plan of action for making the community more friendly to biking and walking. Generally, a non-motorized plan will identify the transportation system's existing non-motorized facilities, establishes a future conceptual network with a map and list of improvements, and identifies resources to help fund future additions to the nonmotorized transportation network.

Bike Plans are a community's vision to make bicycling an integral part of daily life. A plan recommends projects, programs and policies to encourage use of this practical, non-polluting and affordable mode of transportation.

Two common overall goals of a bicycle plan:

- To increase bicycle use, so that 5 percent of all trips less than five miles are by bicycle.
- To reduce the number of bicycle injuries by 50 percent from current levels.

Context Sensitive Solutions: Context sensitive solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist.

Mixed Use: An appropriate combination of multiple uses, inside a single structure or place within a neighborhood, where a variety of different living activities (live, work, shop, and play) are in close proximity (walking distance) to most residents.

http://ncppp.org/resources/papers/surprenant_development.pdf

Road Diet: A change in the number of travel lanes, or width of existing lanes, with the addition of other elements such as bike lanes or car parking. Enhances safety by reducing traffic conflict points and lowering speeds.

Transit-Oriented Development: Residential and commercial districts designed to maximize access by public transit and non-motorized transportation, with good connectivity, mixed-use, parking management and other design features that facilitate public transit use and maximize overall accessibility.

Smart Growth: invests time, attention, and resources into restoring community and vitality to center cities and older suburbs. New smart growth is more town-centered, is transit and pedestrian oriented, and has a greater mix of housing, commercial and retail uses. It also preserves open space and many other environmental amenities.

Greenways are linear corridors of land that connect key resources and open space within a region. Open spaces are blocks of land that are generally self-contained with limited connections or linkages to other areas. A greenways network includes greenways as well as hubs of specifically identified natural resources or open space and manmade features or destinations that influence the development of the development of the linear greenway corridor.