

## Master Plan 2002-2022

Kawkawlin Township
Bay County, Michigan

Adopted by the Kawkawlin
Township Planning Commission
At a regular meeting on:

Prepared by

Kawkawlin Township Planning Commission

and

Wade-Trim, Inc. Planning Consultant

June 27, 2002

### Kawkawlin Township Bay County, Michigan

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## **Resolution for Adoption**

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#### 1.0 Introduction

### 1.1 Authority to Plan

The Kawkawlin Township Planning Commission has prepared this master land use plan under the authority of the

Township Planning Act, Public Act 168 of 1959, as amended. Section 6.(1) of the Act states:

The Planning Commission shall make and adopt a basic plan as a guide for the development of unincorporated portions of the township. As a basis for the plan, the planning commission may do any of the following:

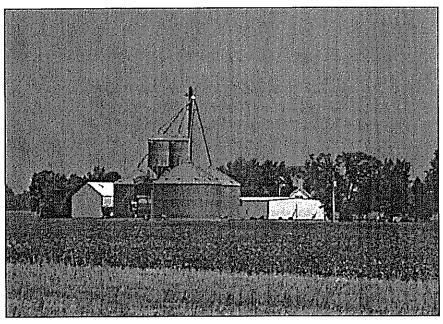
- a. Make inquiries, investigations, and surveys of all the resources of the township.
- b. Assemble and analyze data and formulate plans for the proper conservation and uses of all resources, including a determination of the extent of probable future need for the most advantageous designation of lands having various use potentials and for services, facilities, and utilities required to equip those lands.

### 1.2 Purpose of the Plan

Section 2 of the Township Planning Act, Public Act 168 of 1959 gives a summary of the purpose of a master plan:

The purpose of plans prepared pursuant to this act shall be to promote public health, safety and general welfare; to encourage the use of resources in accordance with their character and adaptability; to avoid the overcrowding of land by buildings or people; to lessen congestion on public roads and streets; to facilitate provision for a system of transportation, sewage disposal, safe and adequate water supply, recreation and other

public improvements; and to consider the character of each township and its suitability for particular uses judged in terms of such factors as the trend in land and population development.



A farm in Kawkawlin Township

Planning is a process involving the selection of policies relating to land use and development in a community. The creation of a Master Plan is the first step of this process. A Master Plan is a statement of the goals and objectives for the future physical development of a community. Comprehensive and long term in nature, the Master Plan examines all aspects of the community, whether they are physical, social, or economic. A Master Plan performs three important functions:

- Provides a general statement of the community's goals and a comprehensive vision of the future.
- Provides the statutory basis for the Zoning Ordinance, as required by the Township Zoning Act, Michigan Public Act 184 of 1943, as amended.
- Serves as the primary policy guide for local officials considering development

proposals, land divisions, capital improvements, and other matters related to land use and development; thus, providing a stable and consistent basis for decision making.

Every community's Master Plan is unique, focusing on important issues and challenges specific to that community. This Master Plan is designed to highlight local issues and to identify solutions to meet local needs.

## 1.3 Public Participation Process

This Master Plan was formulated through a process of active participation of the citizens of Kawkawlin Township. The Planning Commission held three public meetings for the purpose of involving citizens and the Commission to review and comment on the Plan at its three strategic phases.

Attended by the Planning Commission, Township Board of Trustee Members, and concerned citizens, the meetings were held in the Township Hall on the following dates:

- 1. October 18, 2001
- 2. December 6, 2001
- 3. January 31, 2002

The October 18, 2001 meeting included a survey of all those present to fill out a questionnaire listing their three most desired characteristics of Kawkawlin Township of the year 2021. The survey provided a basis for initial formulation of goals and objectives for the Township.

Pursuant to the public hearing notification requirements of Section 125.329, Township Planning Act 168 of 1959, as amended, the Planning Commission on \_\_\_\_\_\_, \_\_\_\_, conducted a public hearing on the Plan. Pursuant to the comments received from those present at the meeting, the Planning Commission at the meeting adopted the Plan.

#### 1.4 Plan Organization

The Master Plan report is comprised of six sections. The first two sections function as an introduction and summary to the whole report. The core and most essential sections of the plan are the middle three: Background Information, Community Goals and Objectives, and Future Land Use Plan, which are explained below.

This Master Plan presents extensive
Background Information for the Township and
surrounding areas, including social and
economic data, and description and mapping
of existing land uses and natural resources.
This background information is analyzed to
identify important characteristics and trends
occurring in Kawkawlin Township.

Community goals and objectives are formulated through citizen input and participation, and are presented to guide future development. The goals and objectives also take into account the key land use trends, population trends, natural resources, and other issues presented in the Background Information section.

After the formulation of the goals and objectives and the creation of an Existing Land Use Map, a Future Land Use Plan can be developed. The Future Land Use Plan section of the Master Plan specifies the extent and location of where various types of future development can be accommodated within the Township.

Plan Implementation is the last section of the Master Plan. It serves as a guide for implementing the recommendations of the Master Plan.

## 1.5 Location and Regional Context

Kawkawlin Township is located in central Bay County with a two and a half mile shoreline along the Saginaw Bay. The Township is located approximately eight miles northwest of the City of Bay City, and is linked to the City in terms of public services, employment, recreation, and entertainment. The Township is also linked to the Cities of Midland and Saginaw, both within 20 minutes driving distance. A number of major transportation arteries pass through the Township providing convenient access to surrounding communities and the rest of the state. The most important transportation route is I-75, which is a high traffic northsouth corridor connecting the large urban centers of southeastern Michigan to popular destinations in northern Michigan. State Highway M-13 is another major transportation route connecting Kawkawlin Township with the communities of Pinconning and Standish to the north and Bay City to the southeast.

Kawkawlin Township is made up of the geographic township T15N-R4E of Bay County. Four Townships border Kawkawlin, including Fraser to the north, Beaver to the west, Monitor to the south, and Bangor to the east. **Map 1** shows the geographic location of the Township.

#### 1.6 History of the Area

Many Native American tribes originally inhabited Kawkawlin Township and the rest of Bay County. These tribes included the Chippewa, Hopewell, Ojibway, Ottawa, and Potawatomi, who thrived on the abundant fish, animals, and vegetation in the area. Archeological digs have uncovered Native American artifacts from the earliest permanent settlements which date back to 3000 BC.

The arrival of European settlers in the area dates back to the early 1800's. Because of its key location on the Great Lakes, famous explorers such as Champlain and Marquette paid visits to assess the area. In 1822, the region officially became Saginaw County, with a Courthouse located in the City of Saginaw. Because of the long travel distances to Saginaw for Bay area

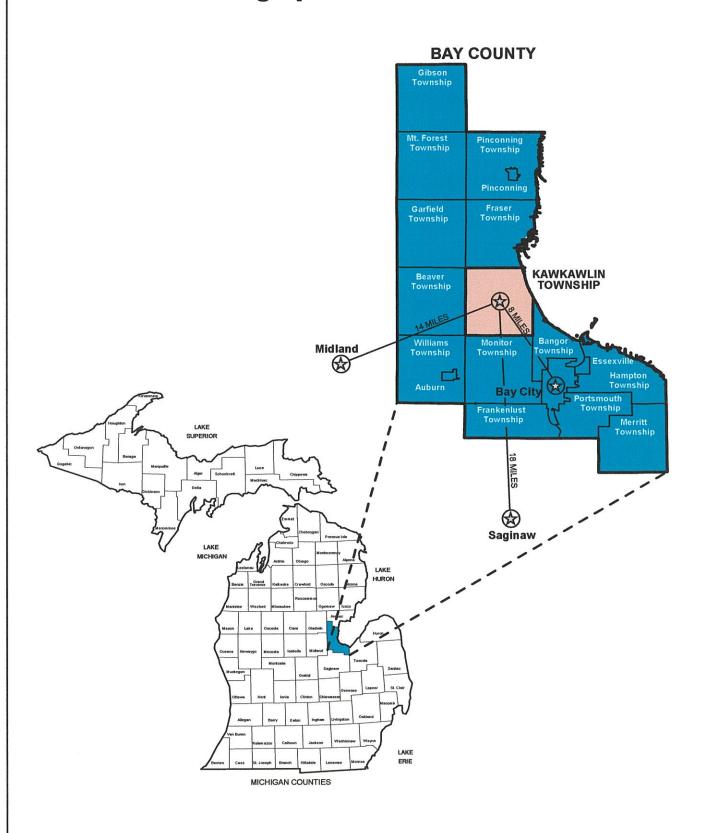
residents, the citizens voted to separate from Saginaw County and form Bay County in 1854.

Because of Bay County's extensive pine forests, the area quickly developed into a major lumbering center. The lumbering era actually began in 1844 with the opening of a lumber mill at the mouth of the Kawkawlin River. At one point during the height of the lumbering era, more than 50 mills were active in Bay County.

Other major industries in the early days of Bay County included boat building and shipping. Bay area shipyards turned out all manner of craft from large 600 feet Great Lakes steel freighters to luxury yachts. During World War II, the Bay County shipyards produced many destroyers and other naval vessels.

Because of Bay County's rich soils, agriculture played a major role in the history of Bay County. The primary crops produced in the area included sugar beets, beans, potatoes, corn, soybeans, wheat, and oats. Today, agriculture still plays a major role in the lives and economy of Bay County. In fact, one of the local sugar beet refineries is the largest East of the Mississippi (Monitor Sugar Company).

# Map 1 Geographic Location



Source: Michigan Resource Information System (MIRIS)

MASTER PLAN KAWKAWLIN TOWNSHIP BAY COUNTY, MICHIGAN





6/27/02

### 2.0 Executive Summary

The Executive Summary is provided to highlight major findings of each section for quick reference purposes.

#### 2.1 Background Information

#### 2.1.1 Population

- Kawkawlin Township has experienced significant population growth in recent years. In 1970, the Township's population was 4,135 people. During the 70's, the Township's population increased significantly but lost population during the 80's. During the last decade, the Township's population began to increase again. Over the entire 30 year span, the Township grew by 23.4%.
- The Township's population is aging, which is evidenced by the change in median age from 33.8 in 1990 to 39.2 in 2000.
- The Township's persons per household average has steadily decreased over the years, declining from 3.18 in 1980 to 2.62 in 2000.
- The highest percentage of the Township's population are Married Couple Families at 63.6%. The second largest household group in the Township is Single Persons Living Alone at 20.1%.

#### 2.1.2 Housing

- A significant majority (82.0%) of the Township's housing structures are single-family homes (1 Unit Structures). The rest of the Towship's housing stock is comprised of Mobile Home or Trailer Units at 14.0%, Units in 5 or More Unit Structures at 2.2%, and Units in 2-4 Unit Structures at 1.9%.
- Kawkawlin Township's home ownership rate rose from 88.3% in 1990 to 90.2% in 2000.

 Kawkawlin Township has a median housing value of \$52,100, which is higher than Bay County at \$44,100 but lower than the State at \$60,600.

#### 2.1.3 Economy

- Generally, the income levels for Kawkawlin Township are average when compared to the surrounding communities and the County. In terms of the percentage of persons below the poverty level, Kawkawlin Township and most of the surrounding communities have percentages lower than the State of Michigan at 10.2%.
- In terms of Educational Attainment, Kawkawlin Township has lower high school graduate and bachelor's degree holder levels than the County and State. However, the Township's educational attainment levels are comparable to the surrounding communities.
- Kawkawlin Township has a workforce predominantly concentrated in three industries: Manufacturing, Wholesale and Retail Trade, and Professional, Health and Education.
- The Township's percent change in State Equalized Value between 2000 and 2001 was the second highest of any municipality in Bay County.

#### 2.1.4 Natural Resources

- Some minor topographical features such as hills and river channels are found in Kawkawlin Township, which may pose constraints to land development. Proper procedures for reducing soil erosion and containing water runoff should be utilized when development occurs in these areas.
- In total, woodlands (upland and lowland forests) cover 7.4% of the entire Township.
- Several concentrations of environmentally sensitive wetland areas are scattered throughout Kawkawlin Township. In total,

wetlands cover 1,371 acres or 6.4% of the Township.

#### 2.1.5 Existing Land Use

- The existing land uses found in Kawkawlin Township follow a typical rural and agricultural land use development pattern. Agricultural lands are primarily found in the less developed western two-thirds of the Township. More concentrated single-family and cottage type residential developments are found in the eastern one-third of the Township, Scattered low-density singlefamily residential uses have developed throughout the Township along the section line roads. Higher intensity residential, commercial, and industrial uses are located along or near the Township's state highways.
- Even though Kawkawlin Township has a fair amount and variety of land uses, its citizens depend on other communities such as Bay City and Saginaw to provide them with many of their everyday needs including employment.
- Of the 21,502 total acres of land in the Township, the highest percentage (60.0%) is agricultural.
- The second largest land use category is vacant/right-of-way, comprising 3,958 acres or 19.1% of the Township.
- Single-family residential lands comprise 10.7% of the Township

#### 2.1.6 Public Services and Facilities

- Public water and sewer systems are currently in place in certain sections of the Township. Public water lines extend throughout the most populated areas of the Township. Public sewer lines are more limited and found along the lakeshore, in the Linwood area, and along Beaver Road.
- One of the Township's most valuable assets is its wide variety of recreational facilities. Some of the major facilities in

the Township include Hoyles Marina, Kawkawlin Township Park, Linwood Park, Spring Valley Golf Course, Tobico Marsh State Game Area, and the Kawkawlin Township Brissette Beach. The Bay City State Recreation Area is located just outside of the Township in Bangor Township.

#### 2.1.7 Transportation

- Kawkawlin Township is well served through a network of freeways, state highways, county roads, and local roads. The major transportation routes include Interstate 75 and M-13.
- Other County Primary Roads in the Township include Linwood Road, Parish Road, Beaver Road, Seven Mile Road, and Mackinaw Road.
- The majority of the roads in Kawkawlin Township are paved.

## 2.2 Community Goals and Objectives

- The Goals and Objectives for the Township are based upon an analysis of the background information in this Master Plan as well as a community survey conducted on October 18, 2001.
- The fundamental community-wide goal of the Township is to "capitalize on the Township's abundant resources for the purpose of creating an attractive community that meets the physical, social, and economic needs of its residents and businesses in an environmentally sensitive manner."

#### 2.3 Future Land Use Plan

 Respecting the Township's goal of retaining its rural character, the Future Land Use Plan designates the largest percentage of the Township as Agricultural/Rural Residential (53.0%). The purpose of this district is to promote agricultural activities, preserve environmentally significant

- forested and open space lands, and discourage inappropriate development.
- One significant recommendation of the Future Land Use Plan is to designate the eastern one-third of the Township as single-family residential. The purpose of this district is to enhance the existing single-family residences, encourage new single-family development, and to promote orderly growth resulting in a cost-effective expansion of Township services.
- Other important recommendations presented in the Future Land Use Plan include the creation of two Business Opportunity Centers at the I-75 interchanges, Commercial Nodes along M-13, and a Township Center at Parish Road and M-13.

#### 2.4 Plan Implementation

The process of carrying out the goals and recommendations of this Master Plan can be challenging. The Plan Implementation section of the Master Plan acts as a general reference guide to be used by Township officials in order to help stimulate the implementation process. The section includes a series of keys to successful implementation, implementation tools, grant and loan program, other funding options and sources of information.

### 3.0 Background Information

Getting a better understanding of a community through background studies is an important component of the comprehensive planning process. A good background study will include information on population, housing, economy, natural resources, existing land use, transportation, and public services. All of these aspects of the Township have direct impacts and influences on future land use decisions.

units of government experienced population growth between 1970 and 1980. The highest population growth rates occurred in Beaver Township (29.0%), and Kawkawlin Township (22.8%). Except for the State of Michigan, all governmental units experienced population decline between 1980 and 1990. In the last decade, only Kawkawlin Township, Monitor Township, and the State of Michigan experienced population increases.

#### 3.1 Population

Population characteristics are presented in this report using the most recent census data (1990 Census and 2000 Census), and historical census data.

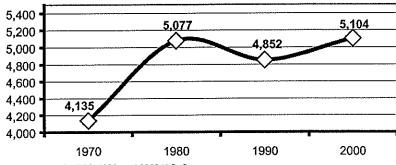
#### 3.1.1 Population Trends

Population growth is the most important factor influencing land use decisions in any community. Simply put, if the population of a community is growing, there will be a need for more housing, commerce, industry, parks and recreation, public services and facilities, or roads.

Figure 1 shows the population trends for Kawkawlin Township since 1970. In 1970, the Township population was 4,135 persons. The Township experienced a high rate of growth between 1970 and 1980, increasing by 942 persons, or 22.8%. Between 1980 and 1990, the Township experienced a slight decline in population, losing 225 people or 4.4%. In the most recent decade, Kawkawlin Township witnessed a positive growth rate, increasing in population by 252 people or 5.2%. For the 30-year period, the Township population increased by 23.4%.

**Table 1** compares Kawkawlin's population trends with the surrounding four Townships, Bay County, and the State of Michigan. All

## Figure 1 Population Trends Kawkawlin Township, 1970-2000



Source: 1970, 1980, 1990, and 2000 U.S. Census

#### 3.1.2 Age Distribution

Information on age distribution within a population can assist a community in matching public services to community characteristics and in determining special needs of certain age groups. For example, the younger population tends to require more rental housing units and smaller homes, while the elderly population may have a need for nursing home facilities. Analysis of age distribution may also be used by policy makers to identify current gaps in services and to project future service needs for housing, education, recreation and medical care. It is of equal importance in planning to anticipate which age groups are likely to increase during the planning period. Examples of this are the aging "baby boomers" and their children; both forming waves of population rise and fall as they move through their lifecycles.

Table 1 **Population Trends** Kawkawlin Township and Surrounding Communities, 1970-2000

Place '	1970	1980	Cha 1970- #		1990	Char 1980- #		2000	Chan 1990-2 #		Chan 1970-2 #	C 45
Kawkawlin Township	4,135	5,077	942	22.8%	4,852	-225	-4.4%	5,104	252	5.2%	969	23.4%
Bangor Township	15,896	17,494	1,598	10.1%	16,028	-1,466	-8.4%	15,547	-481	-3.0%	-349	-2,2%
Beaver Township	2,346	3,027	681	29.0%	2,810	-217	-7.2%	2,806	-4	-0.1%	460	19.6%
Fraser Township	3,412	3,954	542	15.9%	3,680	-274	-6.9%	3,375	-305	-8.3%	-37	-1.1%
Monitor Township	8,743	10,143	1,400	16.0%	9,512	-631	-6.2%	10,037	525	5.5%	1,294	14.8%
Bay . County	117,339	119,881	2,542	2.2%	111,723	-8,158	-6.8%	110,157	-1,566	-1.4%	-7,182	-6.1%
State of Michigan	8,881,826	9,262,044	380,218	4.3%	9,295,297	33,253	0.4%	9,938,444	643,147	6.9%	1,056,618	11.9%

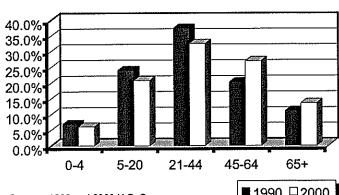
Source: 1970, 1980, 1990, and 2000 U.S. Census.

For the purpose of this report, five age groups are identified. The first age group represents the pre school population at 0-4 years old. The school age population is represented by those between the ages of 5 and 19. The family formation age group is represented by persons 20-44 years of age. The last two groups are the empty nesters between 45-64 years old, and the elderly who are 65 years and over.

Figure 2 helps to show the age groups in the Township that have grown or declined between 1990 and 2000. The empty nesters age group (45-64 years old) saw the greatest increase from 20.3% in 1990 to 27.0% in 2000, followed by the elderly age group (65 years and over) which grew from 11.1% in 1990 to 13.6% in 2000. All of the other age groups declined during this period.

**Table 2** compares the age distributions for the Township, County, State, and surrounding Townships in 2000. Kawkawlin Township and the other units of government

Figure 2 Age Groups, Kawkawlin Township, 1990-2000



Source: 1990 and 2000 U.S. Census

**■**1990 □2000

are very similar in age distributions. However, all of the units of government differ in terms of median ages. Monitor Township has the highest median age at 43.3 years, followed by Bangor Township at 40.3 years. Although not the highest when compared to the surrounding Townships, Kawkawlin Township's median age of 39.2 is higher than both the County and the State levels.

Table 2

Age Distribution

Kawkawlin Township and Surrounding Communities, 2000

Age Range	THE RESERVE OF THE PARTY OF THE	Kawkawiin Township		Bangor Township		Beaver Township		Fraser Township		Monitor Township		Bay i County		of an
	#	%	#	%,	#	%	# //	%	#	%	#	*	# 19	%
0-4 Years	313	6.1	854	5.5	183	6.5	211	6.3	507	5.1	6,725	6.1	672,005	6.8
5-19 Years	1,060	20.8	3,186	20.5	615	21.9	700	20.7	1,870	18.6	23,143	21.0	2,212,060	22.3
20-44 Years	1,660	32.5	5,005	32.2	987	35,2	1,107	32.8	2,915	29.0	37,286	33.8	3,604,383	36.3
45-64 Years	1,377	27.0	4,219	27.1	700	24.9	956	28.3	2,814	28.0	26,833	24.4	2,230,978	22.4
65 Years and Over	694	13,6	2,283	14.7	321	11.4	401	11.9	1,931	19.2	16,170	14.7	1,219,018	12.3
TOTAL	5,104	100.0	15,547	100.0	2,806	100.0	3,375	100.0	10,037	100.0	110,157	100.0	9,938,444	100,0
Median Age	39	.2	40	).3	37	.6	39	).3	43	.3	38.	4	35.5	

Source: 2000 U.S. Census.

#### 3.1.3 Racial Make Up

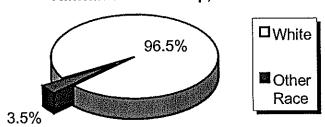
Another important characteristic of a community is its racial make-up. Knowing the racial make-up of a community helps to identify the diverse needs of its population.

Even though the population of Kawkawlin Township has become slightly more diverse since 1990, the Township has remained almost exclusively White. In 2000, 96.5% of the 5,104 persons in the community were White, declining from 98.2% in 1990. All other units of government in the area are similar to the Township, with high percentages of Whites including Bay County at 94.9%. Michigan has a much more diverse population with 80.2% White in 2000. Figure 3 shows the racial distribution of Kawkawlin Township's population in 2000.

#### 3.1.4 Disability Status

An important characteristic of a community that can have future implications on land use and policy is disability status. Disability

Figure 3
Racial Make-Up
Kawkawlin Township, 2000



Source: 2000 U.S. Census

status measures the number of people in a community who have mobility limitations, self-care limitations, or who are unable to work. A high number of disabled citizens might mean that there is a need for more assisted living facilities, building standards for the disabled, or better public transportation. For tracking disability status, the U.S. Census breaks the population into two different age categories: working age and post-working age. Of the civilian non-institutionalized population in the working age group of 16-64 years in Kawkawlin Township, 100 or 3.2% are listed as having a mobility or self-care limitation.

In the non-working age group of 65 years and over, 79 or 15.4% are shown as having a mobility or self care limitation in 1990. The disability percentages for the 16-64 years age group in the Township are slightly lower than both the County at 4.1% and State at 4.6%. For the 65 years and over age group, the Township's percentages are much lower than the County (20.0%) and the State (20.2%).

#### 3.1.5 Household Size

The number of persons per household constitutes household size. Since the 1970's, the nationwide trend has been a decline in household size. This trend has occurred because of a number of reasons which include: declining number of children per family, higher divorce rates, growing number of elderly living alone, and the growing number of young people moving away from families to live on their own.

Knowing whether the household size is increasing or decreasing is very important. If the household size of a community is decreasing, this means that new housing units might be necessary to accommodate for more citizens needing places to live. This can even be true if the overall population of a community is declining. In some municipalities, new housing units are being built to accommodate the demand for housing created by lower household sizes in spite of declining overall populations.

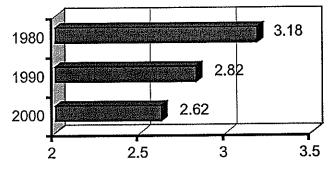
The persons per household trends for Kawkawlin Township since 1980 are shown in **Figure 4**. The figure clearly shows how the number of persons per household has declined in Kawkawlin Township in the past 20 years. In 1980, the Township had a persons per household number of 3.18, which declined to 2.82 by 1990, and continued to decline until reaching 2.62 in 2000.

#### 3.1.6 Household Characteristics

This section examines households in terms of the relationships among the persons who share a housing unit. Some households are families, consisting of two or more persons related by blood, marriage, or adoption, while others are non-family households composed of persons living alone or with unrelated persons.

Household characteristics for the Township and other surrounding communities in 2000 are compared in **Table 3**. The highest percentage of households in Kawkawlin Township are Married Couple Families at 63.6%. Other significant percentages include Single Persons Living Alone (20.1%) and Single Female Families (8.2%). When comparing Kawkawlin Township to Bay County and the State of Michigan, it is evident that Kawkawlin has a much higher percentage of Married Couple Families, and a much lower percentage of Single Persons Living Alone and Single Female Families.

Figure 4
Persons Per Household Trends
Kawkawlin Township, 1980-2000



Source: 1980, 1990, and 2000 U.S. Census

### 3.2 Housing

Housing is a vital characteristic of any community. Houses are highly visible, relatively permanent, and immobile, and for these reasons serve as great indicators of the well being of a community. This housing analysis utilizes 1990 and 2000 U.S. Census data.

Table 3
Household Characteristics
Kawkawlin Township and Surrounding Communities, 2000

Household	Kawkawlin Township		Bangor Township		Beaver Township		Fraser Township		Monitor Township		Bay County		State of Michigan	
Type	#	%.%.	#	%	# //	%	#	. %	#	%	#	%	# # 1	%
Married Couple Families	1,214	63.6	3,465	55.1	707	73.0	858	66.4	2,581	64.9	23,586	53.7	1,947,710	51.4
Single Male Families	87	4.6	236	3.8	29	3.0	47	3.6	103	2.6	1,650	3.8	154,187	4.1
Single Female Families	157	8.2	684	10.9	52	5.4	99	7.7	266	6.7	4,803	10.9	473,802	12.5
Single Persons Living Alone	384	20.1	1,643	26.1	146	15.1	250	19.3	911	22.9	11,935	27.2	993,607	26.2
Other Non- Families	68	3.6	257	4.1	34	3,5	38	2.9	114	2.9	1,956	4.5	216,355	5.7
TOTAL HOUSEHOLDS	1,910	100.0	6,285	100.0	968	100.0	1,292	100.0	3,975	100.0	43,930	100.0	3,785,661	100.0
Average Household Size	2.6	62	2.4	14	2.	86	2.	61	2.4	17	2.4	47	2.56	

Source: 2000 U.S. Census.

#### 3.2.1 Total Housing Stock

Housing stock is the most basic measure of housing that refers to the type of housing units found in a community. The U.S. Census Bureau separates housing units into four different categories: 1 Unit Structures (single-family homes), Units in 2-4 Unit Structures

(e.g. duplex units), Units in 5 or More Unit Structures (e.g. apartment units), and Mobile Home or Trailer Units. **Table 4** shows the distribution of housing units for the Township, surrounding Townships, and Bay County in 1990.

Table 4

Type of Housing Units

Kawkawlin Township and Surrounding Communities, 1990

Unit Type	Kawk Town	4 4 4 4	Bar Towi	igor iship	Beav Towns			ser Iship	Mon Town	itor Iship	Ba Cou	
2017年1月1日 (1917年) 1月1日 (1917年)	#	%	#	%	# #	%	#	%	#	%	# "	) V <sub>0</sub>
1 Unit Structures	1,473	82.0	4,887	78.3	828	92.6	1,225	89.9	2,959	82.5	33,730	76.3
Units in 2-4 Unit Structures	34	1.9	215	3.4	14	1.6	13	1.0	75	2,1	3,563	8.1
Units in 5 or More Unit Structures	39	2.2	431	6.9	0	0.0	7	0.5	60	1.7	3,542	8.0
Mobile Home or Trailer Units	251	14.0	705	11.3	52	5.8	117	8.6	492	13.7	3,399	7.7
TOTAL	1,797	100.0	6,238	100.0	894	100.0	1,362	100.0	3,586	100.0	44,234	100.0

Source: 1990 U.S. Census.

Kawkawlin Township has a fairly high percentage of 1 Unit Structures (single-family homes) at 82.0%. This percentage is slightly higher than Bangor Township (78.3%) and

similar to Monitor Township (82.5%), but is much lower than both Beaver Township (92.6%) and Fraser Township (89.9%). Mobile Home or Trailer Units make up the other significant percentage of housing in the Township at 14.0%. Kawkawlin Township's percentage of Mobile Home or Trailer Units is the highest of all the other units of government. Multiple family housing units are uncommon in the Township, accounting for just over four percent of the total number of housing units. The housing numbers for Bay County are markedly different from the five Townships compared in the table. Bay County has a low percentage of 1 Unit Structures (76.3%) and a higher percentage of both Units in 2-4 Unit Structures (8.1%) and Units in 5 or More Unit Structures (8.0%).

#### 3.2.2 Home Ownership

The home ownership rate is a very important aspect of a community. A high home ownership rate may mean that a community may have stable and well kept neighborhoods. A higher percentage of rental housing might mean unstable neighborhoods with frequent resident changes as well as poorly kept properties.

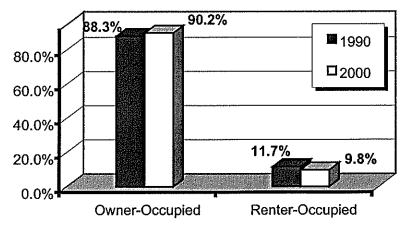
Figure 5 utilizes both 1990 and 2000 Census Data in order to determine whether the owner and renter occupancy rates have increased or decreased in the last decade. As the figure shows, the owner occupancy percentage

88.3% in 1990 to 90.2% in 2000. In absolute numbers, the number of owner occupied housing units increased from 1,499 in 1990 to 1,722 in 2000. Conversely, the renter occupancy percentage declined from 11.7% in 1990 to 9.8% in 2000.

Table 5 shows more detailed census statistics concerning owner and renter occupancy as well as vacancy rates for 2000. Knowledge of vacancy statistics can be helpful in predicting future growth and housing needs. A high vacancy rate might be an indicator of residential decline, but also shows that in the event of growth, housing units are available.

In terms of owner-occupied housing percentages (home ownership rates), Kawkawlin Township is similar to Beaver, Fraser, and Monitor Townships, all with percentages over 90%. Bangor Township and Bay County have much lower owner-occupied housing percentages at 80.8% and 79.3%, respectively. The vacancy rate for Kawkawlin Township in 2000 was 5.5%. This rate is nearly identical to the County at 5.4%. When compared to the surrounding Townships, only Fraser Township has a higher vacancy rate than Kawkawlin Township, while the other units of government are slightly lower.

Figure 5
Change in Owner and Renter Occupancy
Kawkawlin Township, 1990-2000



Source: 1990 and 2000 U.S. Census

(home ownership rate) has increased from

## 3.2.3 Age of Structures

Analyzing the age of housing units is a way to measure the physical quality of the total housing stock of a community. Generally, the economically useful age of residential structures is approximately 50 years. Beyond that age, repairs become expensive and the ability to modernize the structure to include amenities considered standard for today's life styles is diminished.

Table 5
Housing Occupancy Characteristics
Kawkawlin Township and Surrounding Communities, 2000

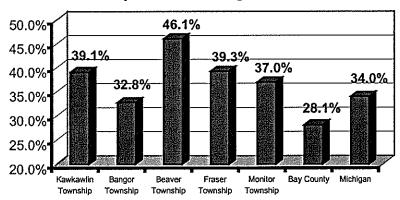
Category	Kawkawilin Township		Bangor Township		Beaver Township		Fraser Township		Monitor Township		Bay County	
	#	%	#	%	#	%	#	%	14.	%.	#	%
Occupied Housing	1,910	94.5	6,285	95.8	968	97.0	1,292	94.0	3,975	96.7	43,930	94.6
Owner-Occupied	1,722	90.2	5,081	80.8	902	93.2	1,204	93.2	3,706	93.2	34,837	79.3
Renter-Occupied	188	9.8	1,204	19.2	66	6.8	88	6.8	269	6.8	9,093	20.7
Vacant Units	111	5.5	278	4.2	30	3.0	82	6.0	136	3.3	2,493	5.4
Vacant Seasonal	39	35,1	65	23.4	4	13.3	37	45.1	22	16.2	355	14.2
Vacant Other	72	64,9	213	76.6	26	86.7	45	54.9	114	83.8	2,138	85.8
TOTAL UNITS	2,021	100.0	6,563	100.0	998	100.0	1,374	100.0	4,111	100,0	46,423	100.0

Source: 2000 U.S. Census.

When a community's housing stock approaches that age, it is possible that the need for rehabilitation and new construction will increase. There are exceptions to this rule, however. Some of the older housing of a community might be very well built, as well as desirable because of historical or architectural value, while at the same time newer housing might not be of good quality.

As shown in **Figure 6**, Kawkawlin Township has a fairly high percentage of newer housing (built between 1970 and 1990) at 39.1%, especially when compared to the County at 28.1% and the State at 34.0%. The community with the highest percentage of newer housing is Beaver Township at 46.1%.

Figure 6
Percent of Housing Built Between 1970-1990
Township and Surrounding Communities



Source: 1990 U.S. Census

Table 6 compares the age of structures for Kawkawlin Township with Bay County, the surrounding Townships, and Michigan. As shown in the table, Kawkawlin Township's percentage of older housing (built earlier than 1939) at 15.7% is the highest of all the surrounding Townships. However, the percentage is much lower than both the County at 29.2% and the State at 20.8%.

Table 6

Age of Structures

Kawkawlin Township and Surrounding Communities, 1990

		Year Structure Built	
Place	1939 or Earlier	1940-1969	1970-1990
Kawkawlin Township	15.7%	45.2%	39.1%
Bangor Township	9.3%	57.9%	32.8%
Beaver Township	15.4%	38.5%	46.1%
Fraser Township	9.8%	50.9%	39.3%
Monitor Township	11.2%	51.8%	37.0%
Bay County	29.2%	42.7%	28.1%
Michigan	20.8%	45.2%	34.0%

Source: 1990 U.S. Census.

#### 3.2.4 Housing Values and Rent

Analyzing housing values and rent could be the best way to determine both the quality and affordability of housing. It is of crucial importance that a community maintains both quality and affordable housing.

Figure 7 shows the distribution of housing values for Kawkawlin Township. As shown in the figure, the Census Bureau divides housing into five different ranges of value. The highest percentage of Kawkawlin Township's housing (47.0%) falls into the lowest value range of under \$50,000. The second highest percentage of the Township's housing (43.3%) is found in the \$50,000 to \$99,999 category. The other 9.6% of housing in Kawkawlin Township is spread out into the three highest value ranges over \$100,000.

The distribution of housing and rental values for Kawkawlin
Township, the surrounding
Townships, Bay County, and the
State of Michigan in 1990 are
shown in **Table 7**. Also shown are the median housing and rental values for each unit of government. The most significant

finding in the table is that both the median housing value and median rental value for Kawkawlin Township fall right at the average of all the comparable units of government. The Township's median housing value of \$52,100 is higher than Beaver Township, Fraser Township, and Bay County, but is lower than Bangor Township, Monitor Township, and Michigan. Similarly, the Township's median rental value of \$292 is higher than two Townships and the County, but lower than two Townships and the State.

Figure 7
Value of Owner Occupied Housing Units
Kawkawlin Township, 1990

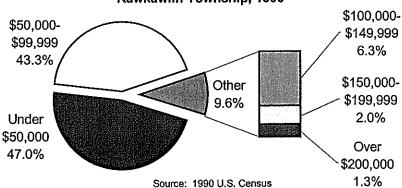


Table 7
Distribution of Housing Values and Rent
Kawkawlin Township and Surrounding Communities, 1990

Value Characteristics	Kawk Town	and the second second second		ngor nship	14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	aver nship		aser nship	822 3 x = 120	iltor ishlp	Ba Gou	And the State of the	, State Michig	40 Carlo 30 21 8 18
Gnaracteristics	#	%	#.	%	#	%	#	%	#	<b>%</b>	#	%	# 13	%
Specified Owner- Occupied Housing Units*	1,078	100.0	4,047	100.0	548	100.0	879	100.0	2,497	100.0	25,924	100.0	1,916,143	100.0
Under \$50,000	507	47.0	1,818	44.9	317	57.8	561	63.8	815	32.6	15,454	59.6	737,217	38.5
\$50,000-\$99,999	467	43.3	1,864	46.1	223	40.7	287	32.7	1,487	59.6	9,173	35.4	814,496	42.5
\$100,000-\$149,999	68	6.3	281	6.9	8	1.5	25	2.8	162	6.5	1,002	3.9	219,195	11.4
\$150,000-\$199,999	22	2.0	54	1.3	0	0.0	1	0.1	25	1.0	193	0.7	79,313	4.1
Over \$200,000	14	1.3	30	0.7	0	0.0	5	0.6	- 8	0.3	102	0.4	65,922	3.4
Median Value	<b>\$</b> 52,	100	\$53,000		\$47,000		\$42,600		\$61,000		\$44,100		\$60,6	00
Specified Renter- Occupied Housing Units**	167	100.0	1,063	100.0	47	100.0	126	100.0	248	100.0	9,062	100.0	925,304	100.0
Under \$250	47	28.1	299	28.1	23	48.9	65	51.6	55	22.2	3,186	35.2	232,954	25.2
\$250-\$499	115	68.9	743	69.9	24	51.1	59	46.8	182	73.4	5,510	60.8	536,905	58.0
\$500-\$749	5	3.0	21	2.0	0	0.0	1	0.8	11	4,4	346	3.8	128,873	13.9
\$750-\$999	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	13	0.1	17,827	1.9
Over \$1,000	0	0.0	0	0.0	0	0.0	1	8.0	0	0,0	7	0.1	8,745	0.9
Median Rent \$292		\$3	\$308		\$253		\$255		\$331		\$287		\$343	

<sup>\*</sup> Specified housing units include only one-family houses on less than ten acres without a commercial establishment or medical office on the property.

Source: 1990 U.S. Census.

### 3.3 Economy

Economic characteristics comprise a major part of census data. Economic characteristics are important because they help determine a community's viability and ability to support future commercial, residential and industrial growth. This economic analysis utilizes both 1990 and 2000 U.S. Census Data.

#### 3.3.1 Income and Poverty

Studying income and poverty levels is a good way to measure the relative economic health of a community. Three measures of

income (median household, median family, and per capita) are illustrated in Table 8 for the Township, County, State, and surrounding Townships. Household income is a measure of the total incomes of the persons living in a single household. Family income is a measure of the total incomes of a family unit. Because families often have two incomes, and do not include single persons living alone, median family incomes are typically higher than median household incomes. Per capita income is a measure of the incomes of every citizen of an area, including children. Because per capita income is based on the average of all individuals, they are much lower than family or household incomes.

<sup>\*\*</sup> Contract rent is the monthly rent agreed to, or contracted for, regardless of any furnishing, utilities, or services that may be included.

Table 8
Income and Poverty
Kawkawlin Township and Surrounding Communities, 1989

Place	Family Income	Household Income	Per Capita Income	% Below Poverty
Kawkawlin Township	\$34,228	\$31,832	\$12,586	6.6
Bangor Township	\$40,023	\$33,608	\$14,776	9.2
Beaver Township	\$35,511	\$34,292	\$11,735	6.3
Fraser Township	\$34,281	\$29,619	\$11,385	13.3
Monitor Township	\$41,742	\$35,929	\$15,501	4.7
Bay County	\$34,034	\$27,940	\$12,597	12.5
Michigan	\$36,652	\$31,020	\$14,154	10.2

Source: 1990 U.S. Census.

Table 8 shows the family, household, and per capita income levels for the Township and surrounding units of government for 1989. Overall, Kawkawlin Township's income levels are comparable to the surrounding communities, County, and State. Monitor Township to the south, has the highest levels of all the units of government in all three income categories.

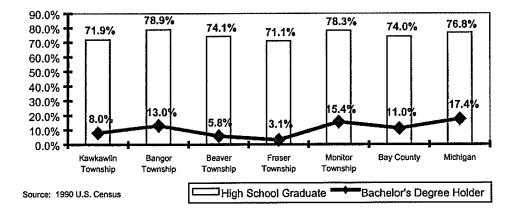
**Table 8** also gives the percentages of families who were found to be below the poverty level. The percentage for Kawkawlin Township is quite low at 6.6%, especially

when compared to higher County and State levels.

#### 3.3.2 Educational Attainment

Educational attainment is another important factor in analyzing the capabilities of the local work force and the economic vitality of the community. The educational attainment of the citizens of a community plays a major role in determining what types of employment industries are suitable or necessary.

Figure 8
High School Graduates and Bachelor's Degree Holders
Kawkawlin Township and Surrounding Communities, 1990



The U.S. Census Bureau reports on the percentage of citizens in a community who graduated from high school as well as those who went on after high school to complete

bachelor's degrees. Figure 8 illustrates the educational attainment levels for Kawkawlin Township as well as the surrounding Townships, County, and State in 1990.

Kawkawlin Township's high school graduate percentage of 71.9% is the second lowest of all the surrounding communities. In terms of bachelor's degree holder percentage, the Township's percentage of 8.0% is higher than the Townships of Beaver and Fraser, but lower than the other units of government. At 78.9%, Bangor Township has the highest percentage of high school graduates, while Michigan has the highest college graduate percentage at 17.4%.

#### 3.3.3 Employment

The U.S. Census Bureau presents employment data in terms of employment by

industry. Employment by industry is a good way of analyzing what type employment opportunities exist within the region for the Township work force.

Table 9 shows the Employment by Industry for Kawkawlin Township, Bay County, and surrounding Townships in 1990. As can be seen by the table, Kawkawlin Township has three primary industries which employ a high percentage of its citizens. The three primary industries are: Manufacturing (26.4%), Wholesale and Retail Trade (25.1%), and Professional, Health and Education (18.6%). Similar to Kawkawlin, all of the other units of government compared in the table have high percentages in these three industries.

Table 9
Employment by Industry
Kawkawlin Township and Surrounding Communities, 1990

Industry	Kawk Towr		Ban Town		Bea Town		1.00	ser iship	Mon Town		Ba Cou	
	#	%	# #	%	# //	%	#	%	#	%	#	%
Agriculture, Fisheries, Forestry, and Mining	47	2:3	69	0.9	21	1.7	88	5.9	76	1.7	968	2.0
Construction	201	9.6	416	5.5	91	7.3	95	6.4	177	4.0	2,557	5.3
Manufacturing	551	26.4	1,762	23.3	413	33.2	395	26.6	1,200	27.3	11,448	23.8
Transportation, Utilities, and Communications	79	3.8	608	8.0	78	6.3	82	5.5	266	6.1	2,657	5.5
Wholesale and Retail Trade	524	25.1	1,937	25.6	332	26.7	425	28.6	1,088	24.8	12,450	25.9
Finance, Insurance, and Real Estate	47	2.3	451	6.0	48	3.9	19	1.3	221	5,0	2,265	4.7
Business and Repair Services	41	2,0	161	2.1	75	6.0	59	4.0	114	2.6	1,668	3.5
Personal, Entertainment, and Recreation	87	4.2	346	4.6	23	1.8	63	4.2	160	3.6	2,007	4.2
Professional, Health, and Education	389	18.6	1,602	21.2	153	12.3	236	15.9	987	22.5	10,660	22.2
Public Administration	122	5.8	205	2.7	11	0.9	25	1.7	100	2.3	1,346	2.8
TOTAL.	2,088	100.0	7,557	100.0	1,245	100.0	1,487	100.0	4,389	100.0	48,026	100.0

Source: 1990 U.S. Census.

#### 3.3.4 State Equalized Values

State Equalized Values (SEV) provide an important indicator of a community's wealth. By law the 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 10 shows the 10 communities in Bay County that grew the most in terms State Equalized Values between 2000 and 2001. As can be seen by the table, Kawkawlin Township is currently the second fastest growing community in Bay County with a percentage change of 12.13% between 2000 and 2001. Gibson Township in the northern portion of the county had the highest percentage increase at 13.12%.

Table 10
State Equalized Values (SEV)
Selected Bay County Municipalities\*, 2000 - 2001

Municipality	2000 SEV	2001 SEV	Percent Change
1. Gibson Township	\$20,536,300	\$23,230,750	13.12
2. Kawkawlin Township	\$113,722,250	\$127,514,000	12.13
3. Beaver Township	\$58,310,750	\$64,805,450	11.14
4. Mt. Forest Township	\$29,067,950	\$31,721,100	9.13
5. Garfield Township	\$35,160,900	\$38,361,050	9.10
6. Monitor Township	\$268,707,000	\$292,806,650	8.97
7. Frankenlust Township	\$91,969,900	\$100,212,850	8.96
8. Pinconning Township	\$57,275,350	\$62,308,500	8.79
9. City of Auburn	\$40,905,550	\$43,716,400	6.87
10. Williams Township	\$134,207,000	\$143,035,950	6.58

<sup>\*</sup> Top ten municipalities by percent change.

Source: Bay County Equalization Department.

## 3.4 Natural Resources Assessment

The natural environment plays a major role in land development. The natural environment can significantly impact development such as a steep slope prohibiting the construction of any structure. Conversely, the natural environment can be effected by land development. An example would be the increased erosion potential caused by clearing vegetation. Thus, when preparing a Future Land Use Plan, it is important to examine the natural environment in order to determine where development is best suited, and where it should be discouraged.

In any environmentally sensitive area within a community, development should be prevented. Environmentally sensitive areas are lands whose destruction or disturbance will effect the life of a community by either:

- Creating hazards such as flooding or slope erosion.
- Destroying important public resources such as groundwater supplies and surface water bodies.
- Wasting productive lands and nonrenewable resources such as prime farmland.

Each of these effects is detrimental to the general welfare of a community, resulting in social and economic loss.

The purpose of this section is twofold. First, the goal is to identify areas in the Township that are most suited for development. The focus is on areas that will minimize development costs and provide amenities without adversely impacting the existing natural systems. The second goal is to identify land that should be conserved in its natural state and is most suitable for conservation, open space or recreation purposes.

Climate, geology, topography, woodlands, wetlands, and soil conditions are among the most important natural features impacting land use in Kawkawlin Township.

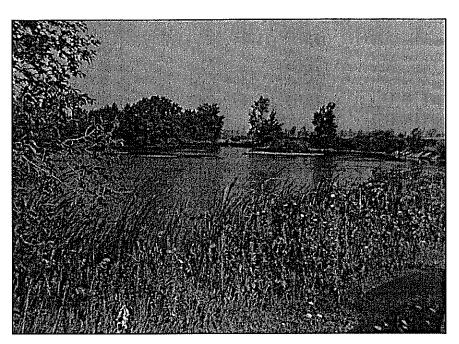
Descriptions of these features follow.

#### 3.4.1 Climate

The climate of Bay County is seasonal, as the region experiences considerable changes in temperatures and precipitation throughout the year. The temperature range in January for Bay County is between 15 to 29 degrees Fahrenheit, in July between 61 to 82 degrees Fahrenheit. The average number of days below zero degrees Fahrenheit is 8, while the average number of days above 90 degrees Fahrenheit is 10. The average growing season in Bay County lasts 168 days. In terms of annual precipitation, Bay County averages 28 inches of rainfall and 39 inches of snowfall per year.

#### 3.4.2 Geology

The geology of Kawkawlin Township, as well as the entire Lower Peninsula of Michigan, is described in terms of surface geology or quaternary geology (materials deposited by



Marshland in the Tobico Marsh State Game Area

continental glaciers) and bedrock geology (sedimentary rocks underlying the glacial deposits).

The quaternary geology of the Township developed 10,000 to 12,000 years ago through continental glacial activity. As the glaciers melted and retreated from the landscape, large amounts of sand, gravel, clay, and loam were deposited. Massive glacial lakes formed at the front of the retreating glaciers. Bay County was among those submerged in glacial water.

The melting glacial water was laden with fine soil particles, which eventually settled to the bottom, creating clay and loam soils. The glacial melt water streams also deposited fine sands into the shallow glacial lakes. The sand channels are several miles wide in places, but the sand in them is generally only five to ten feet thick.

The sand deposits were further altered by wave action from these glacial "Great Lakes," creating small sand dunes and low beaches across the landscape as the water levels declined and the lakes retreated to their current area of coverage.

The sub-surface geology of Kawkawlin Township is sedimentary bedrock that was laid down during the Pennsylvanian ages of the Paleozoic Era. Bedrock is covered by glacial deposits and, generally, depending upon the thickness of the glacial deposits, are located at depths from 40 to 300 feet below the surface. The bedrock was formed from ancient seas, which covered the area some 250 to 600 million years ago. The shallow marine seas deposited layers of silt, clay, sediments, marine animals, plants, coral, and other calcareous materials. These deposits formed sandstone, shale, coal, and limestone bedrock.

#### 3.4.3 Topography

The overall topography of Kawkawlin Township can be characterized as flat, with elevations ranging between 580 to 630 feet above sea level. The lowest elevations of between 580 to 595 feet are found in the eastern portion of the Township near the Saginaw Bay and Tobico Marsh State Game Area. A small ridge with elevations over 600 feet is found parallel and adjacent to M-13, separating the lower lands in the east from the higher lands found in the western twothirds of the Township. From the ridge along M-13 to the west, the elevations increase from about 595 feet to over 620 feet along the western border of the Township. The highest elevation of 631 feet above sea level is found at the intersection of Eight Mile Road and Siedler Road. In the Township, steep slopes caused by significant elevation changes are only found where streams and rivers carve out small valleys and riverbeds. Aside from these riverbeds and channels, few topographical constraints to land development are found in the Township.

#### 3.4.4 Woodlands

Woodlands information for Kawkawlin Township is derived from the Michigan Resources Information System (MIRIS) land use cover data provided by the Michigan Department of Natural Resources. The Michigan Department of Natural Resources breaks up woodlands into two categories: upland forests and lowland forests. Upland forests include mostly central hardwood (oak) trees such as red oak, white oak, sugar maple, red maple, black cherry, beech, basswood, and ash. Tree species in the lowland forest include silver maple, green ash, aspen, cottonwood, and elm. **Map 2** shows the general locations of upland and lowland forests in Kawkawlin Township.

In total, woodlands cover 7.4% of the Township. A higher number of lowland forests are found in the Township (946 acres or 4.4% of the Township) as compared to upland forests (638 acres or 3.0% of the Township). As shown on Map 2, upland and lowland forests are concentrated primarily alongside the North Branch Kawkawlin River, and within the Tobico Marsh State Game Area.

Because of many benefits associated with wooded areas, woodlands should be seen as a real asset to the Township. For human inhabitants, forested areas offer scenic contrasts within the landscape and provide recreational opportunities such as hiking and nature enjoyment. In general, woodlands improve the environmental quality of the whole community by reducing pollution through absorption, reducing the chances of flooding through greater rainwater infiltration, stabilizing and enriching soils, moderating the effects of wind and temperature, and providing habitats for wildlife.

#### 3.4.5 Wetlands

Wetlands are defined by the existence of water, either on the surface or near the surface during a portion of the year. Poorly drained soils and water-loving vegetation may also be present. Wetlands are often referred to as marshes, swamps, or bogs. Residents of Michigan are becoming increasingly more aware of the value of wetlands. Beyond their aesthetic value, wetlands improve water quality of lakes and streams by filtering polluting nutrients, organic chemicals, and toxic heavy metals. Wetlands are closely related to high groundwater tables and serve to discharge or recharge aquifers. In addition,

wetlands support wildlife, and wetland vegetation protects shorelines from erosion.

As shown on Map 2, Kawkawlin Township has a significant percentage of wetland areas. In total, wetlands cover 1,371 acres or 6.4% of the Township and are primarily concentrated in the Tobico Marsh State Game Area and surrounding the North Branch Kawkawlin River. The Township should work to conserve these wetland areas because of their great value to the community.

#### 3.4.6 Soil Associations

Soil characteristics help define the land's capacity to support certain types of land uses. Soils most suitable for development purposes are well-drained and are not subject to a high water table. Adequate drainage is important for minimizing stormwater impacts and the efficient operation of septic drain fields. Adequate depth to the water table is necessary to prevent groundwater contamination from septic systems. A high water table also limits the construction of basements. Though civil engineering techniques can be employed to improve drainage and maintain adequate separation from the water table, such techniques are expensive to construct and maintain.

According to the General Soils Map of Bay County provided by the Soils Conservation Service, there are eight soil associations within the County. Of those eight soil associations, five are found in Kawkawlin Township. The general locations of these associations are shown on Map 3. The map is not designed for site specific applications. Rather, it can be used to compare land suitability for large areas.

Each soil association is composed of several soil series. Each series making up one association may occur in another, but in a different pattern and/or combination. A description of the four soil associations within Kawkawlin Township follows:

#### Londo - Tappan Association

This soil association is composed of nearly level, somewhat poorly drained and poorly drained soils that formed in loamy material on till plains modified by lakewater. Covering approximately 15% of the Township, this soil association is located in the northern and southern portions of the Township. The soils in this association are used mainly for cultivated crops. In some areas they are used as woodland or for pasture and hay. Wetness is the main limitation to the use of these soils for farming and for most non-farm uses. The potential for building site development is poor on Tappan soils and fair on Londo soils.

#### Pipestone - Tobico - Rousseau Association

This soil association is composed of nearly level and gently sloping, well drained to poorly drained soils that formed in sandy material on outwash plains, lake plains, and beaches. Small land areas containing soils of this association are found along M-13 in the northern section of the Township and also in the southeast corner of the Township. In total, this association comprises approximately 20% of the Township. The soils of this association are well-suited for certain farming uses such as the production of hav and pasture crops, and have fair potential for crop cultivation. The potential for building site development is good on Pipestone and Rousseau soils but poor on Tobico soils.

#### Tappan – Belleville Association

Found covering the eastern portion of the Township along the Saginaw Bay shoreline, this association is comprised of nearly level, poorly drained soils that formed in loamy and sandy material on till plains modified by lake water. In total, the association covers approximately 10% of the Township. The soils in this association are used mainly for farming. In some areas they are used as woodland and for habitat for wetland wildlife. Wetness is the main limitation for farming and urban uses.

#### Wixom - Pipestone - Tappan Association

A small area located along the western border of the Township contains soils of this association. These soils, which compose approximately 5% of the Township, are nearly level, somewhat poorly drained and poorly drained soils that formed in sandy and loamy material on outwash plains and on till plains modified by lake water. The soils in this association are used mainly for cultivated crops or for woodland and wildlife habitat. Like many other associations in the Township, the main limitation for development is wetness. The potential for building site development is good for Wixom and Pipestone soils but poor for Tappan soils.

#### Tappan - Londo - Poseyville Association

This soil association covers the largest percentage of Kawkawlin Township at 50%. The majority of the land in the central and western portions of the Township contains soils of this association. These soils are nearly level, somewhat poorly drained and poorly drained soils that formed in loamy and sandy material on till plains modified by lake water. The soils in this association are used mainly for cultivated crops, and in some areas for woodland or for pasture and hay. The potential for building site development is good on Poseyville soils, fair on Londo soils, and poor on Tappan soils. Wetness is the main limitation for use of these soils for farming and urban development.

## 3.4.7 Sites of Environmental Contamination

The Michigan Department of Environmental Quality (MDEQ) publishes a list of contaminated sites throughout Michigan. Contaminated sites are sites with any of the following characteristics:

- Sites where a hazardous substance has been released, deposited, or disposed of.
- Oil and gas contamination sites.
- Hazardous waste management sites.

Solid waste management sites.

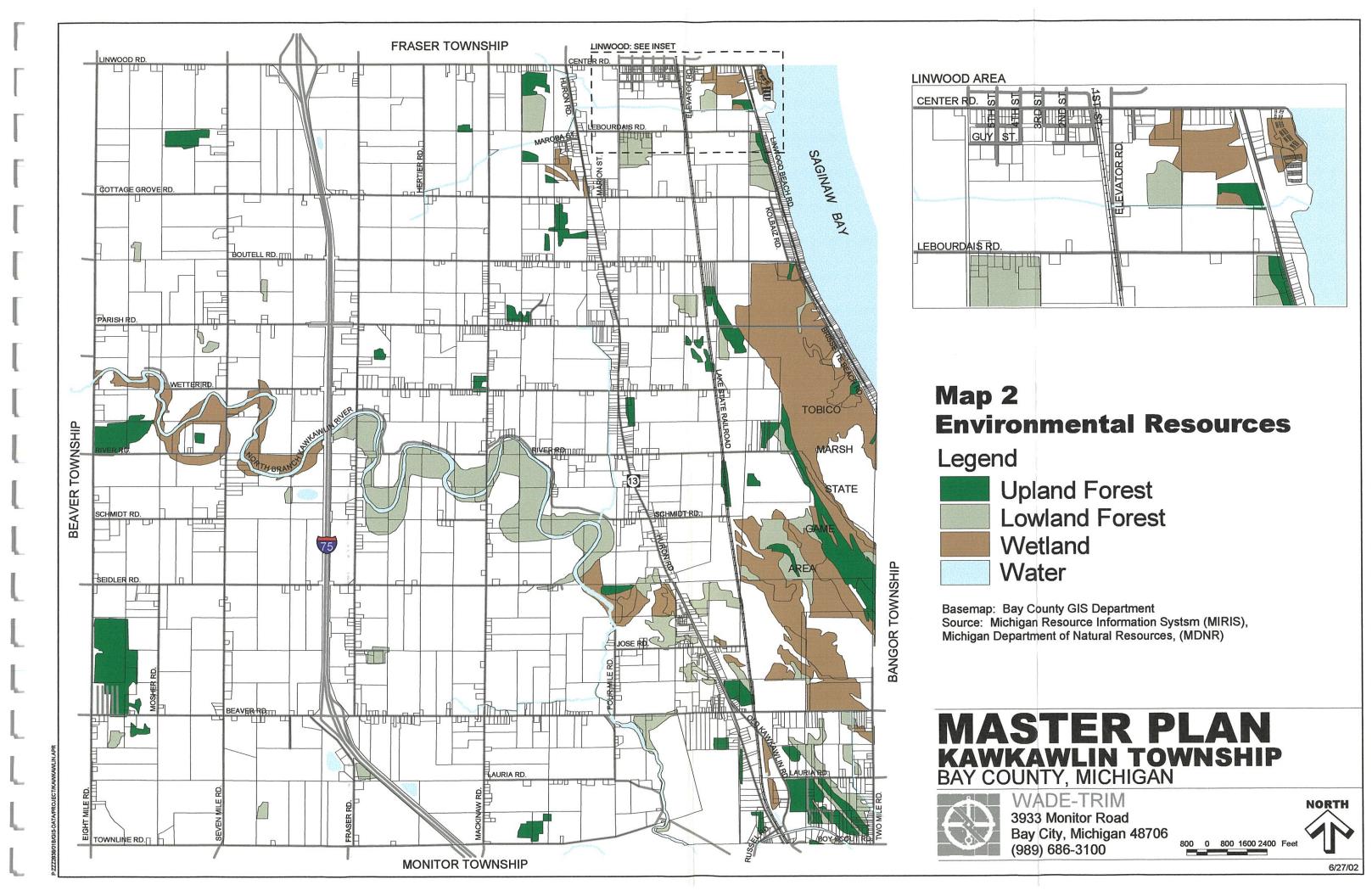
As shown on **Map 3**, two sites of environmental contamination are located in Kawkawlin Township.

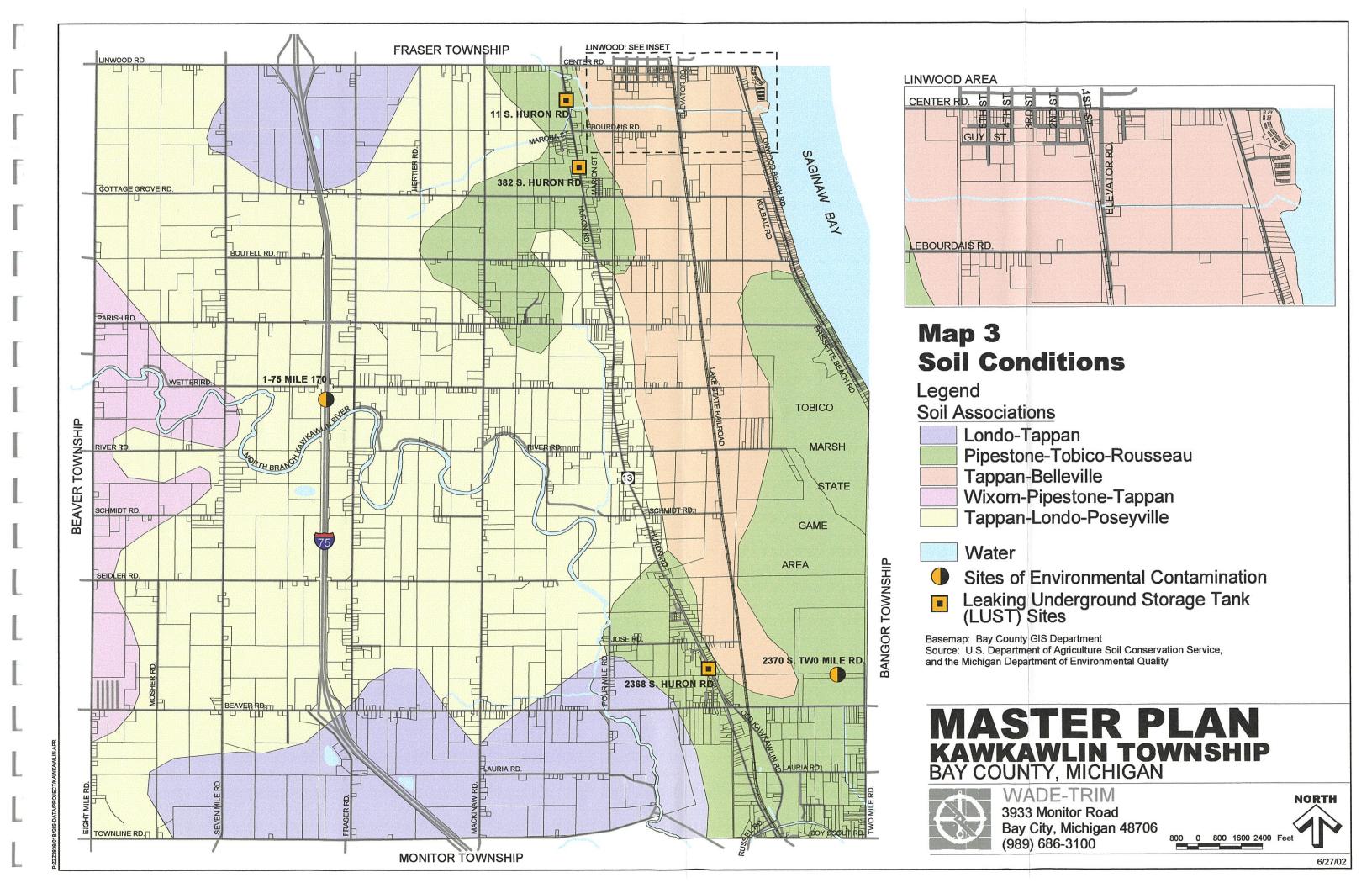
## 3.4.8 Leaking Underground Storage Tank (LUST) Sites

The Michigan Department of Environmental Quality (MDEQ) also publishes a list of Leaking Underground Storage Tank (LUST) sites throughout Michigan. A LUST site has the following characteristics:

- Sites where a release has occurred from an underground storage tank system.
- Sites where chemicals from an underground storage tank have been detected in the groundwater, surface water, or subsurface soils.

As shown on **Map 3**, three Leaking Underground Storage Tank sites are currently located in Kawkawlin Township.





### 3.5 Existing Land Use Analysis

The rational application of the planning process for the Future Land Use Plan is possible only when there is a clear understanding of existing conditions and relationships between land uses. Knowledge of existing land development furnishes the basic information by which decisions can be made concerning proposals for future residential, commercial, industrial, and public land use activities. The Existing Land Use Map and Table, included in this section of the report, will serve as a ready reference for the Township in its consideration for land use management and public improvement proposals.

#### 3.5.1 Survey Methodology

A computer-generated base map for the Township was first created using digital information from the Michigan Resource Information System (MIRIS), and the Township tax assessment maps. The base map includes the Township boundary line, streets, water bodies and channels, and parcel lines. A parcel-by-parcel field survey of the entire Township was conducted by Wade-Trim in August of 2001. Each land use was recorded on the base map according to a predetermined land use classification system. The information was later digitized and, thus, the Existing Land Use Map was created (Map 4). The map was reviewed with the Township officials for accuracy. Land use acreages were then derived directly from the digital information (Table 11).

Table 11
Existing Land Use Acreage
Kawkawlin Township, 2001

Land Use Category	Acres	% of Total
1. Agricultural	12,899	60.0
2. Single-Family Residential	2,290	10.7
3. Multiple-Family Residential	40	0.2
4. Manufactured Home Park	55	0.3
5. Commercial	83	0.4
6. Industrial	191	0.9
7. Public / Semi-Public	222	1.0
8. Recreation / State Game Area	1,599	7.4
9. Vacant / Right-of-Way	3,958	18.4
10. Water	165	0.7
Totals	21,502	100.0

Source: Wade-Trim Field Survey of August 2001 with subsequent corrections.

#### 3.5.2 Land Use Analysis

The existing land use analysis describes the current land uses found within the Township. The overall land use pattern in the Township can be characterized as rural. Although concentrations of residential land uses are found in the Township, the majority of the Township consists of agricultural lands. The

largest land use in the Township is agricultural, accounting for 60.0% of the Township. The second largest land use category is Vacant/Right-of-Way Area (18.4%). Each land use category in the Township is described below.

#### 1. Agriculture

Land that is being utilized for agricultural purposes such as crop production, grazing, and other related activities and accessory buildings such as barns and elevators is included in the agricultural category.

The majority of the land area in the Township is currently being utilized for agricultural purposes. In total, these lands cover 12,899 acres or 60.0% of the Township. Farmland is not as predominant in the swampy lands surrounding the North Branch Kawkawlin River and near the Saginaw Bay.

#### 2. Single-Family Residential

This land use category includes land occupied by single-family dwelling units, seasonal dwellings, manufactured homes outside of designated mobile home parks, and their related accessory buildings such as garages.

Single-family residential land accounts for 2,290 acres, or 10.7% of the Township. Many different housing types can be found throughout the Township including older farmhouses, suburban homes, and small cottages.

The single-family residential area bordering the Saginaw Bay on Linwood Beach Road and Brissette Beach Road is unique. Most of the homes in this area are single-family homes, located on small narrow lots. However, some large homes on larger lots are also scattered throughout this residential area.

Another unique residential area is found in the community of Linwood, located in the northeastern corner of the Township.
Linwood is an established community, with older homes typical of

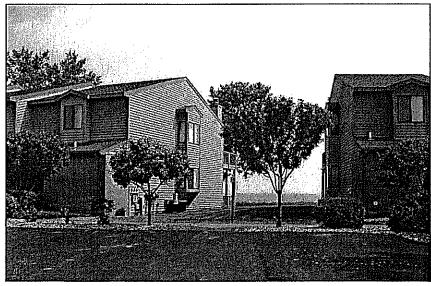
small towns and villages. Linwood has a good variety of modest homes on small lots within an integrated grid street system.

The rest of the single-family homes are scattered throughout the Township. The majority of these homes are found on large lots, along the section roads. Only a few suburban style residential neighborhoods are currently found, mostly located in the eastern half of the Township.

#### 3. Multiple-Family Residential

This land use category includes land occupied by two-family dwelling units or multiple-family dwelling units such as duplexes, townhouses, or apartments.

Although only comprising 0.2% of the Township, several multiple-family residential complexes are located in the Township. The newest complex is the Harbor View Condominiums, located on the Saginaw Bay, adjacent to Hoyles Marina in the northeast tip of the Township. Other major multiple-family complexes include the Howard Apartments and Liberty Square Apartments in Linwood, and the Village Apartments at the southern border of the Township.



Harbor View Condominiums

#### 4. Manufactured Home Park

Land occupied by manufactured dwelling units sited in a planned community and their related accessory service structures and recreational spaces is included in this category.

Two manufactured home parks are located in Kawkawlin Township. The largest is White Birch Village Mobile Home Park, located at the northeast corner of Beaver Road and Eight Mile Road. A smaller Manufactured Home Park is located on the west side of Huron Road (M-13) north of Jose Road. In total, Manufactured Home Parks comprise 55 acres of the Township.

#### 5. Commercial

This land use category includes land that is predominantly occupied by retail sales or service establishments. Offices such as financial institutions, professional offices, and clinics are also included in this category.

Commercial land use accounts for 83 acres, or 0.4% of the Township. Most of the commercial establishments in the Township are found along the Huron Road (M-13) corridor running north and south through the Township. A small neighborhood commercial concentration is located in the community of Linwood.

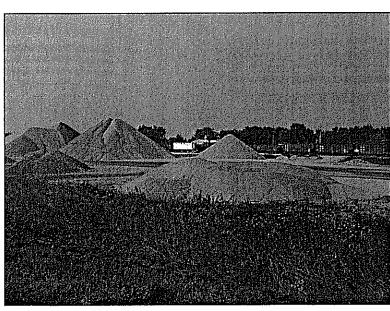
Commercial establishments on M-13 include fast food restaurants, convenience stores, gas stations, restaurants, auto sales lots, and motels. Because this corridor has been a major north/south route for many years, the commercial establishments are generally older, and are sporadically located along the corridor. Aside from the small neighborhood commercial concentration in Linwood,

no major commercial use currently exists within the Township.

#### 6. Industrial

This land use category is comprised of land occupied by manufacturing industries, processing facilities, warehouses, and non-manufacturing uses which are primarily industrial in nature. Lands so classified may include areas with or without buildings where raw or semi-finished materials are fabricated or those using or storing raw materials for primary production or extractive operations such as mining sites.

Numerous industrial establishments are currently found in the Township, accounting for 191 acres or 0.9% of the Township. The largest industrial concentration is located in the southeast section of the Township along M-13. Many other industrial complexes are located on M-13 intermixed within the commercial and residential uses along the corridor. The major industries in the Township include American Recycling Center, Inc., Central Michigan Lumber, Farmers Petroleum, Hugo Brothers Pallets, Kawkawlin Roofing, and Saginaw Bay Plastics.



A Bulk Stone Supply Operation in Kawkawlin Township

#### 7. Public / Semi-Public

Public uses are land and facilities that are publicly operated and available for use by the public. Examples include schools, government buildings, water and sewer utilities, correctional facilities, hospitals, and airports. Semi-public uses are land and facilities which may be privately owned or operated but used by the public or a limited number of persons. Examples include churches, cemeteries, and power line rights-of-way.

Public and semi-public uses comprise 222 acres or 1.0% of the Township. Some of the public and semi-public uses are described below:

- Schools Three schools, Linwood Elementary School, St. Anne's Catholic School, and St. Bartholemew Lutheran School, are located in the Township. A detailed description of the schools serving the Township residents is included in Section 3.6.3.
- Churches Five churches are currently located in the Township.
   These churches are Apostolic Christian Church, Fraser Road Church of God, Sacred Heart Church, St.
   Anne's Catholic Church, and St.
   Bartholemew Evangelical Lutheran Church. Four of the five churches are located at the I-75 and Beaver Road Interchange.
- Other Uses Other uses that fall into this category include the North Bay Adult Activity Center, Huron Woods Nursing Center, Kawkawlin Township Hall and Fire Department, VFW Post, Bay County Road Commission, Heavenly Rest Cemetery, Calvary Cemetery, and utility properties.

#### 8. Recreation / State Game Area

Recreation facilities including parks, marinas, private clubs, and publicly owned state game lands are included in this category.

In total, the Recreation / State Game Area category comprises 1,599 acres or 7.4% of the Township. Most of the land in this category is part of the Tobico Marsh State Game Area, owned by the Michigan Department of Natural Resources.

A detailed description of the recreation facilities is included in **Section 3.6.4** of this report.

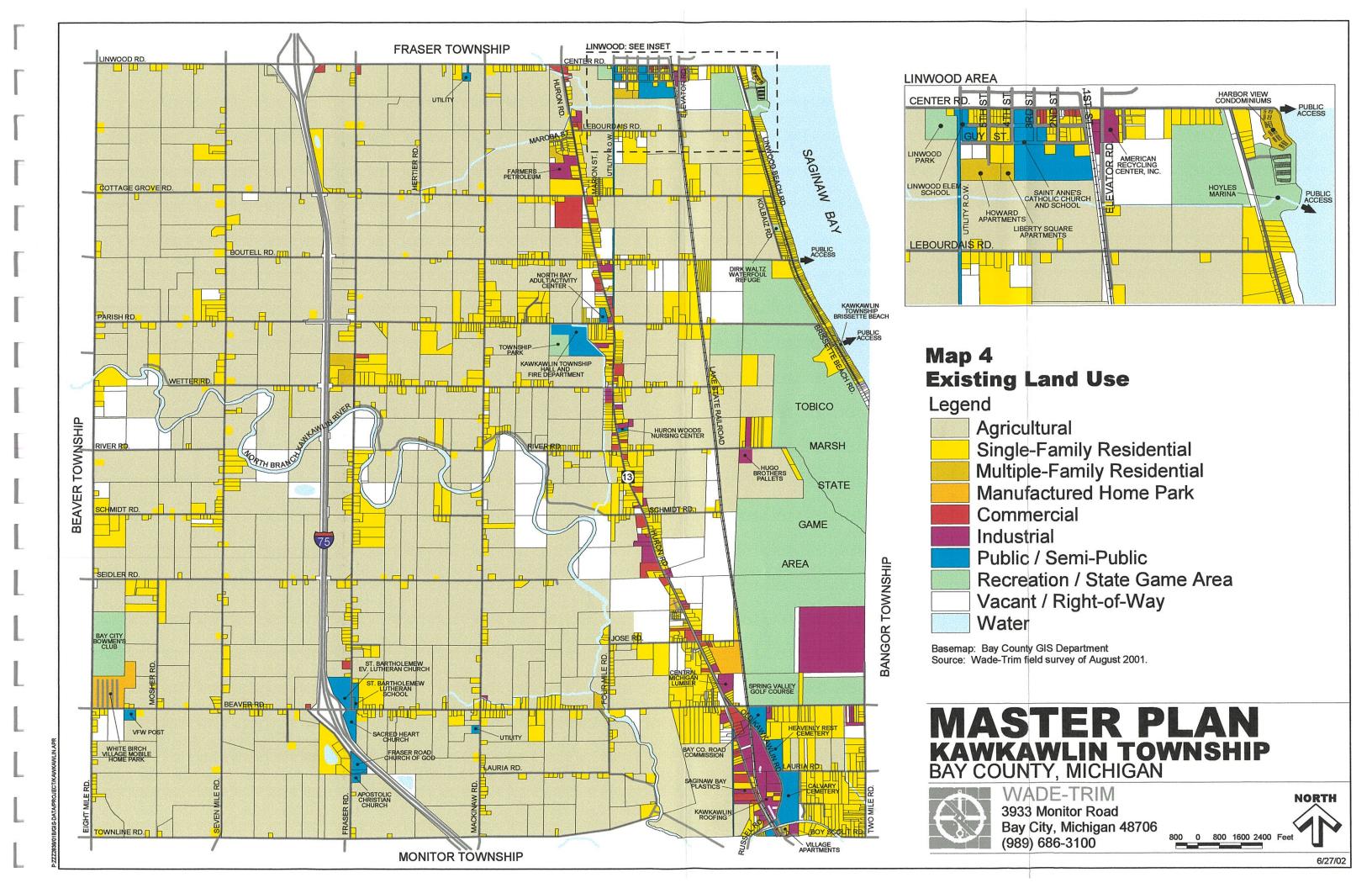
#### 9. Vacant / Right-of-Way

Vacant lands include undeveloped forest land, wetlands, and barren lands. Also included in this category are road and railroad rights-of-way.

Relatively few vacant parcels are found in the Township. In total, land in the vacant and right-of-way category comprises 3,958 acres or 18.4% of the Township. Most of the vacant land is found along the North Branch Kawkawlin River, and west of the Tobico Marsh State Game Area. Much of this land is environmentally significant because of the presence of woodlands or wetlands.

#### 10. Water

Water bodies in Kawkawlin Township include the North Branch Kawkawlin River in addition to other smaller lakes and streams. In total, the water category comprises 165 acres.



## 3.6 Public Services and Facilities Assessment

Kawkawlin Township's public services and facilities are changing to meet the demands of an increasing population. The purpose of this chapter is to examine the availability of public facilities and services to meet the future needs the Township. Each facility is described below.

## 3.6.1 Water and Sanitary Sewer Systems

Both water and sanitary sewer systems currently exist within certain areas of Kawkawlin Township. Water is provided through the Bay County Water and Sewer Department. Kawkawlin Township is responsible for water system improvements and expansions. Sewage from Kawkawlin Township is sent to treatment plants operated by the Bay County Water and Sewer Department. Like water lines, Kawkawlin Township is responsible for sewer expansion and improvements. Map 5 shows the extent of coverage and location of both water mains and sanitary sewer lines within Kawkawlin Township.

As can be seen by the map, Kawkawlin Township has a fairly extensive system of water mains covering the majority of the Township. Nearly all of the homes, businesses, and industries in the east half of the Township have access to public water. Areas in the Township without access to public water include sections in the western part of the Township, especially the northwest corner.

Unlike the public water system, sanitary sewer coverage in the Township is less extensive. Only a handful of sewer lines currently exist in the Township, concentrated in the dense northeast and southeast sections of the Township.

#### 3.6.2 Solid Waste Collection

Solid waste collection services within all of Kawkawlin Township are currently provided through Waste Management, Incorporated. The contractual agreement between Kawkawlin Township and Waste Management, Inc. will continue through the year 2003.

## 3.6.3 Police, Fire, and Emergency Medical Services

Police protection is provided by the Bay County Sheriff's Department, as well as the Michigan State Police. The Kawkawlin Township Volunteer Fire Department provides fire and emergency medical response services to the Township. The Township Fire Station is located on Parish Road.

There are no hospitals located within the Township limits. The nearest area hospital is Bay Medical Center, located in Bay City.

#### 3.6.4 Schools

One public grade school and two private schools are located in Kawkawlin Township. Linwood Elementary School, and St. Anne's Catholic School are both located in the community of Linwood, while St. Bartholemew Lutheran School is located on Beaver Road.

Two public school districts serve the residents of Kawkawlin Township: Pinconning Area Schools and Bay City Schools. The Common Core of Data (CCD) provides information on public schools and school districts in the United States for the 1998-1999 school year. The Pinconning Area Public School District has a total enrollment of 2,172 students, with a student to teacher ratio of 21.3 to 1. The Bay City Public School District has a total enrollment of 10,448 students with a student to teacher ratio of 21.8 to 1.

Several colleges are located within convenient driving distance of Kawkawlin Township. These colleges include:

<u>College</u>	<u>Location</u>	<u>Enrollment</u>
Delta College	University Cente	r 18,387
Saginaw Valley State University	University Cente	r 7,100
Northwood University	Midland	1,650
Central Michigan University	Mt. Pleasant	16,252

#### 3.6.5 Recreation

Several recreation facilities are located within or near Kawkawlin Township (See **Map 4**). Descriptions of these facilities are included below.

#### Hoyles Marina

Hoyles Marina, located on the Saginaw Bay in the northeast corner of the Township, is a major recreational facility providing access to the Saginaw Bay. This large marina complex features a six-car cement boat launch ramp, 262 boat slips, and winter storage areas. The marina also features a campground area with 80 sites suitable for tent or RV camping.

#### Kawkawlin Township Park

This park is located adjacent to the Kawkawlin Township Hall and Fire Department. This large park features many recreational facilities including ballfields, pavilions, and tennis courts.

#### Linwood Park

Located in the community of Linwood, this park features a pavilion area, tennis courts, and baseball/softball diamonds.

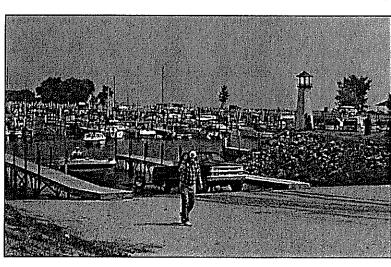
### Spring Valley Golf Course

The Spring Valley Golf Course is located adjacent to the Tobico Marsh State Game Area north of Beaver Road in the southeast section of the Township. This public golf course features nine holes.

#### Tobico Marsh State Game Area

The Tobico Marsh State Game Area, located on the eastern edge of the Township, is Kawkawlin Township's largest recreational feature.

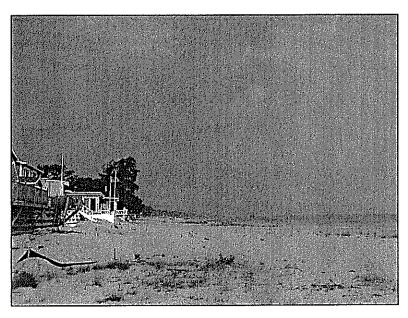
The state game area covers approximately 1,400 acres of undeveloped marshland providing a habitat for a large variety of wildlife. Owned and operated by the Michigan Department of Natural Resources, this game area will remain in an undeveloped state.



A Boat Launch at Hoyles Marina

### Kawkawlin Township Brissette Beach

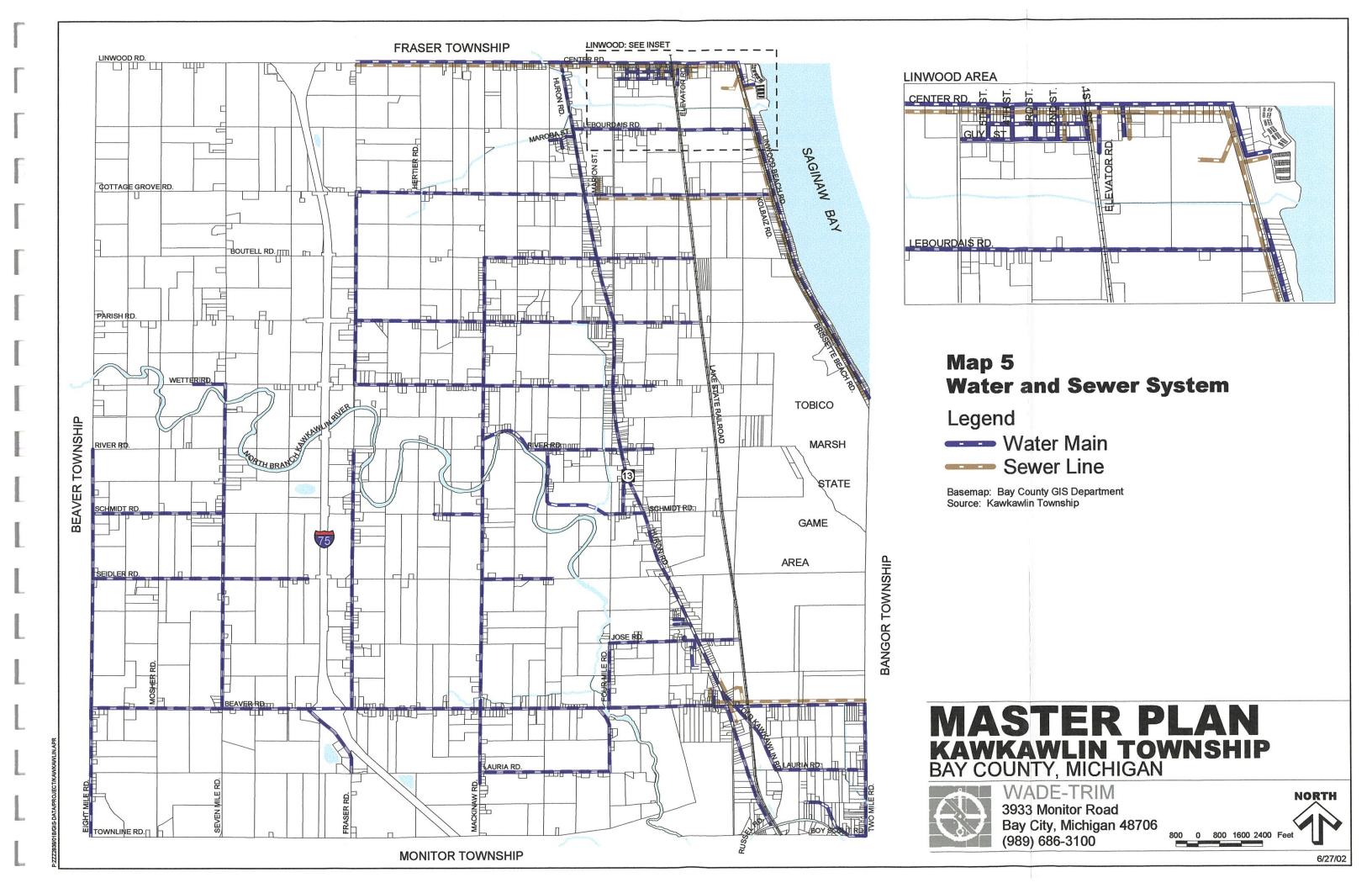
This Township Park features the only public beach area within Kawkawlin Township. The park is located off of Brissette Beach Road on the Saginaw Bay.



Brissette Beach on Saginaw Bay

## <u>Bay City State Recreation Area (Bangor Township)</u>

This state park, located just east of Kawkawlin Township, is a major recreation facility serving the entire region. The state park features a shoreline on the Saginaw Bay, five miles of trails, overlook towers, the Saginaw Bay Visitor Center, and an all-season campground area.



### 3.7 Transportation Analysis

Mobility constitutes a vital part of the social and economic well-being of a community. The traffic circulation system is, in a large part, the framework upon which a community is built. This system must support the collective mobility of citizens of and visitors to Kawkawlin Township. The system must also be fully coordinated with the other elements of the master plan, particularly future land use, so as to complement the collective goals, objectives, and policies of the plan.

### 3.7.1 Transportation Network

Kawkawlin Township is very well served through a network of national, state, and county roads and highways.

Interstate 75, a controlled access freeway, runs through the Township providing convenient access to the nearby cities of Standish, Bay City, and Saginaw. The highway also provides convenient access to the larger urban centers and popular recreational destinations of Michigan as well as the entire Midwest. Many cities are within one-half day driving distance from the Township, including:

<u>Miles</u>
300
280
100
130
360
80
180
300

One state highway, M-13, runs through the Township. M-13 serves as an alternative route for I-75, providing access to communities to the north such as Pinconning, Standish, and East Tawas, and communities to the south such as Bay City and Saginaw.

The rest of the roads in the Township are either classified as County Primary Roads, County Local Roads, or Other Local Roads

(Map 6). The County Primary Roads provide access mainly to different parts of the Township and to the adjoining communities. The major County Primary Roads in the Township include Linwood Road, Seven Mile Road, Beaver Road, Parish Road, Mackinaw Road, and Linwood Beach Road. County Local Roads and Other Local Roads connect homes and residents to the main roads in the Township.

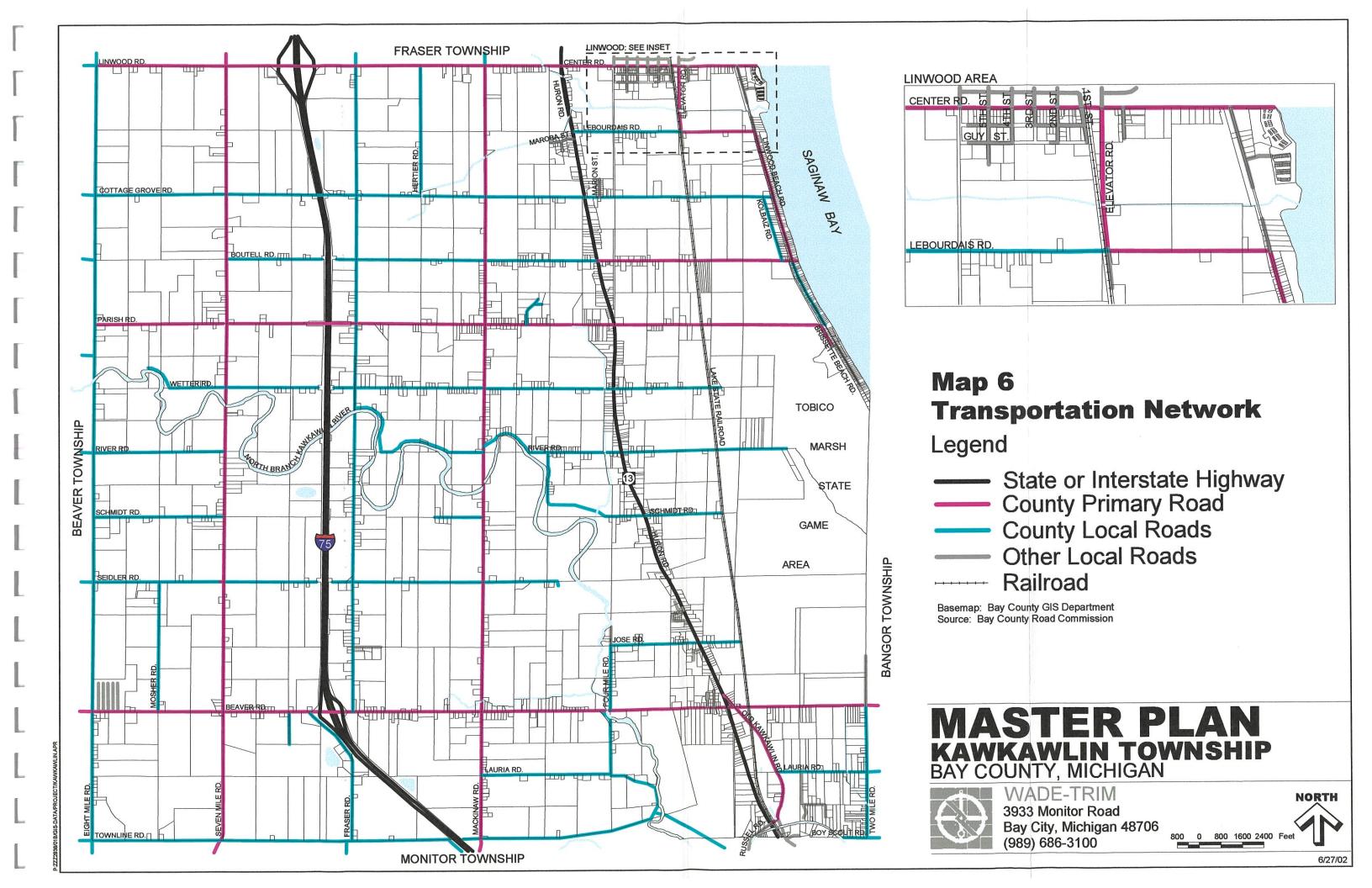
One rail line, Lake State Railroad, runs through the eastern half of the Township, providing a rail connection to cities in northern and southern Michigan. The nearest commercial airport is MBS (Midland, Bay City, Saginaw) International Airport in Saginaw, located within 20 minutes driving distance from Kawkawlin Township. The nearest commercial port is located in Bay City, on the Saginaw Bay.

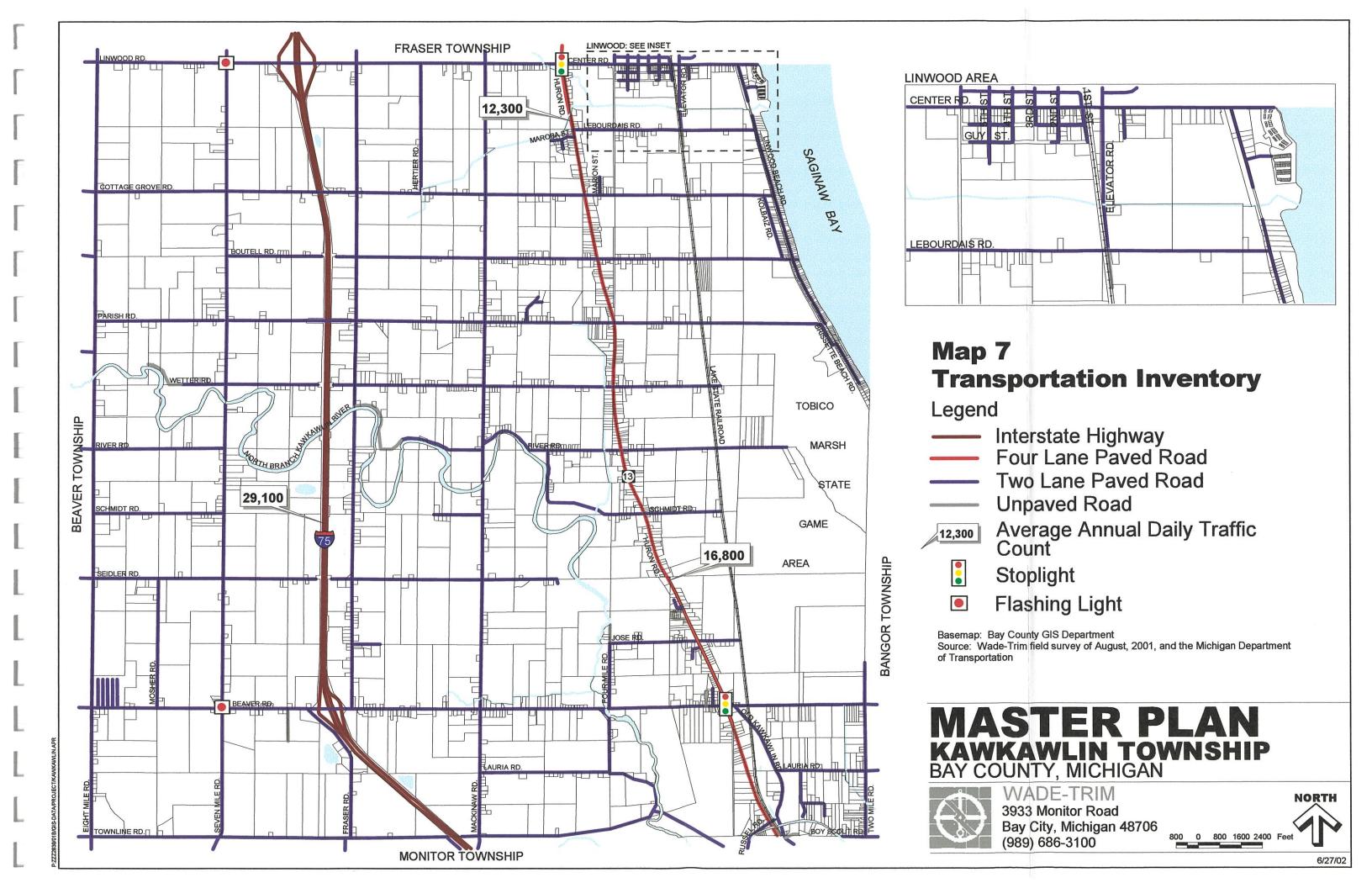
#### 3.7.2 Transportation Inventory

Map 7 provides an inventory of the existing conditions of Kawkawlin Township's road network. The map includes traffic count information for I-75 and M-13, the number of lanes for each road in the Township, the condition of the road in terms of paved or unpaved surface, and the locations of traffic signals.

Average annual traffic counts for I-75 and M-13 are provided by the Michigan Department of Transportation. I-75 currently has an average annual daily traffic volume of 29,100 trips within Kawkawlin Township. M-13 also has significant average annual daily traffic volumes, ranging from 12,300 to 16,800 trips within the Township. Having highly traveled transportation arteries such as I-75 and M-13 is significant because it indicates that the Township is highly visible and accessible to many regional travelers.

Map 7 also shows that, with a few exceptions, all roads in the Township are paved.





## 4.0 Community Goals and Objectives

#### 4.1 Introduction

Before a community can actively plan for its future growth and development, it must first develop a set of goals and objectives that define the boundaries of its needs and aspirations. The goals and objectives must reflect the type of community desired and the kind of lifestyle its citizens wish to follow, given realistic economic and social constraints.

The following is a recommended set of community goals (the ultimate goals and desires of the community) and objectives (means of attaining goals) as established by the Kawkawlin Township Planning Commission. These goals and objectives are based upon the background studies and analysis, as presented in Section 3.0, and upon a survey of the citizens and Planning Commission Members conducted on October 18, 2001.

## 4.2 Community-Wide Goals

- Capitalize on the Township's abundant resources (i.e. natural resources, shoreline on the Saginaw Bay, visibility along I-75, recreation facilities, proximity to Bay City) for the purpose of creating an attractive community that meets the physical, social, and economic needs of its residents and businesses in an environmentally sensitive manner.
- Attract and manage new growth in a manner that will retain the rural and agricultural character of the community.
- Preserve and promote the rights of individual property owners while maintaining the aesthetic character of the community.
- Relate land use primarily to the natural characteristics of the land and the long-term needs of the community, rather than to short-term economic gain.

 Encourage intergovernmental cooperation between Kawkawlin Township, Bay County, the surrounding communities, and the State of Michigan in the coordination of longrange planning for the provision of areawide facilities.

# 4.3 Residential Goal and Objectives

#### Goal

Promote the development and enhancement of residential areas designed to offer a variety of safe, sanitary, and affordable housing choices.

#### **Objectives**

- Encourage the improvement and beautification of existing residences as a means of ensuring lasting identity and stability of residential areas.
- Encourage new residential developments whose densities, styles, and locations will not adversely affect the current rural and small town character of the community.
- 3. Discourage residential development in environmentally sensitive areas.
- 4. Require adequate buffers or transition areas between residential and non-residential developments to maintain property values and attractiveness.
- Encourage the alleviation of conflicting or undesirable land uses from residential areas through code enforcement and other options.
- Encourage the alleviation of unsanitary or unsafe housing through code enforcement or other options.

# 4.4 Commercial Goal and Objectives

#### Goal

Provide for a comprehensive range of commercial facilities to serve the needs of local population and tourists.

#### **Objectives**

- 1. Capitalize on the I-75 corridor to attract new commercial development.
- 2. Encourage the redevelopment and beautification of the M-13 corridor.
- Discourage strip commercial development along highways, except where a specific need can be substantiated for highway-oriented type businesses and where such businesses will not adversely impact existing residential uses.
- Locate new commercial development in strategic locations where such businesses will not adversely impact existing residential uses.
- Establish a compatible relationship between commercial and adjacent residential uses through the use of buffer devices such as walls, fences, landscaped areas, and transitional uses.

# 4.5 Industrial Goal and Objectives

#### Goal

Encourage a variety of industrial developments with attractive sites to strengthen the tax base and provide employment opportunities for area residents.

### **Objectives**

1. Capitalize on the I-75 corridor to attract new industrial development.

- Encourage the redevelopment and beautification of existing industries on the M-13 corridor.
- 3. Seek new industries that are clean and provide job opportunities for the local population.
- 4. Locate new industries in areas that have reasonable boundaries, are easily accessible from the existing transportation network, can be well served from existing infrastructure facilities, and are not subject to encroachment by incompatible uses.

# 4.6 Transportation Goal and Objectives

#### Goal

Develop and maintain a network of roads that meets the needs of all Township residents, businesses and tourists in a safe and convenient manner.

#### Objectives

- 1. Utilize the federal/state road and highway classification system for classifying existing and future roads in Kawkawlin Township.
- Cooperate with the Michigan Department of Transportation and the Bay County Road Commission in the planning and design of road improvements.
- Develop and implement a transportation beautification plan along major thoroughfares through a public participation process focusing on streetscape, signage, landscaping, and other aesthetic improvements.
- Promote the development of non-vehicular transportation routes such as pedestrian walkways and bike paths in order to provide convenient connections between key recreation facilities, schools, and residential neighborhoods.
- Limit points of ingress/egress on major roads.
- 6. Segregate truck and automobile traffic as much as possible.

# 4.7 Infrastructure Goal and Objectives

#### Goal

Meet the infrastructure needs of residents and businesses in a cost-effective manner.

#### Objectives

- Cooperate with surrounding communities in meeting infrastructure needs of the Township.
- Limit the extension of infrastructure facilities to new areas where new growth should be promoted.
- Match new development with the available or planned infrastructure capacities.

# 4.8 Park and Recreation Goal and Objectives

#### <u>Goal</u>

Preserve the natural resources of Kawkawlin Township and provide for the recreation needs of all Township residents and tourists.

#### Objectives

- 1. Capitalize on the Saginaw Bay shoreline to develop unique recreation facilities.
- Encourage public participation and utilize professional expertise to determine needed and desired recreation facilities.
- 3. Seek funding from the MDNR for new recreation facilities in the Township.
- Cooperate with the surrounding communities, area school districts, Bay County, State of Michigan, and providers of private recreation facilities in developing a comprehensive recreation program.

# 4.9 Natural Environment Goal and Objectives

#### Goal

Preserve and enhance the natural and environmental resources of the Township for all current and future Township residents and tourists.

#### <u>Objectives</u>

- Implement land use patterns, which will direct new growth away from environmentally sensitive areas such as woodlands, wetlands, steep slopes, and areas subject to flooding.
- Implement development controls, which will maximize the protection of land-based natural resources while preserving the quality of air and water.
- 3. Encourage and seek solutions to protect wetlands and groundwater resources.

## 5.0 Future Land Use Plan

#### 5.1 Introduction

The Future Land Use Plan identifies the desired pattern of land development in Kawkawlin Township for a period extending 20 years. The Future Land Use Plan is a general statement of the Township's goals and provides a single, comprehensive view of the community's desire for its future. This section describes the basis for the plan and the intended character of each land use classification.

# 5.2 What is a Future Land Use Plan?

A Future Land Use Plan is a guide to the physical development of a community. Based on the social and economic values of the community, it translates those values into a scheme that describes how, why, when, and where to build, rebuild, or preserve the community.

There are many general characteristics of a Future Land Use Plan. The first characteristic of the Plan is that it is long range, covering a time period of as much as twenty years. Not only does the Plan present a vision of the community into the future, it also recommends procedures and policies that can help the community to get there.

A second characteristic of the Plan is that it is meant to be general in nature. The Future Land Use Plan is not meant to be specific, recommending land uses property by property. It only provides land use recommendations for generalized locations in the community. This is one of the strengths of the Future Land Use Plan, allowing for the community to determine exact locations and boundaries for the proper land use classifications.

A third characteristic of the Plan is that it is comprehensive, covering all social, economic, and physical aspects of the entire community. The Plan not only analyzes the individual functions that make the community work, the Plan also studies the interrelationships between these functions.

Lastly, a Future Land Use Plan is a statement of policy and a guide covering such community desires as quantity, character, location, and rate of growth and indicating how these desires are to be achieved. It is important to understand that the Plan has no legal authority, unlike legal documents such as a zoning ordinance or subdivision regulations. The Plan serves as a guide in the formulation of these legal documents. Government bodies and officials such as the Township Board, Planning Commission, and Zoning Administrator should use the Plan as a guide in their day to day decision making processes.

#### 5.3 Basis for the Plan

Making informed decisions about the future growth and redevelopment of communities is no easy task. Communities have become centers of complex and interrelated activities. Employment and residential areas are interconnected and supported by public and private facilities such as streets, water, sewer, storm drains, parks, and services such as, garbage pick up, police and fire protection, medical and emergency services, recreation and entertainment, and personal services. Many of these facilities and services are interrelated, as are the land uses they support or serve. A Future Land Use Plan can only be created after this thorough understanding of all the elements in the land use system is gained.

In the proceeding chapters of this Master Plan, many elements of Kawkawlin Township were analyzed including demographic data, environmental features, existing development patterns, infrastructure coverage, existing transportation network, and community goals and objectives. These elements, in addition to an understanding of regional conditions and market trends, combine to form the basis for the Future Land Use Plan.

#### 5.4 Plan Recommendations

Thirteen land use classifications are proposed for Kawkawlin Township. The various future land uses are portrayed on **Map 8** and the total acreages for each category are shown in **Table 12**.

Table 12
Future Land Use Acreage
Kawkawlin Township

Land Use Category	Acres	Percent
Agricultural/Rural Residential	11,398	53.0
2. Single-Family Residential	5,931	27.5
3. Multiple-Family Residential	227	1.1
4. Manufactured Home Park	1. Marin 1983 11 11 11 11 11 11 11 11 11 11 11 11 11	0.4
5. Commercial	105	0.5
6. Commercial Node	322	1.5
7. Business Opportunity Center	866	4.0
8. Industrial	409	1.9
9. Public/Semi-Public	134	0.6
10. Township Center	150	0.7
11. Recreation	<b>1,630</b>	7.6
12. Water	165	8.0
13. Right-of-Way	82	0.4
Totals	21,502	100.0

Source: Wade-Trim

A description of each Future Land Use category is presented below.

### 1. Agricultural/Rural Residential

In keeping with the community-wide goal of "capitalizing on the Township's abundant resources" and "retaining the rural and agricultural character of the community," the Future Land Use Plan designates the highest percentage (53.0%) of the Township as Agricultural/Rural Residential. The majority of the land in the western half of the Township has been designated in

this category. The Agricultural/Rural Residential category is intended to accomplish a number of goals:

- Preserve the existing agricultural resources and support activities in the Township.
- Preserve the environmental resources, including upland and lowland forests within the Township, for future generations.
- Steer development away from environmentally sensitive areas in the Township such as wetlands.

 Prevent large-scale residential developments from locating in the district.

All common farming activities such as the raising of crops and livestock would be considered compatible land uses in this area. Related agricultural activities such as tree farms, horse farms, or fish hatcheries are also anticipated in this category. Outdoor commercial recreation and open space uses such as riding stables, golf courses, campgrounds, nature preserves, and similar uses, should also be considered compatible uses.

Low-density single-family homes compatible with the rural character of the Township are permitted in this district. Minimum lot size should be one or more acres per housing unit.

### 2. Single-Family Residential

The single-family residential classification is intended to accomplish two major goals: enhance the existing single-family residential areas in the Township, and provide sites for new single-family development. New single-family development is needed in the Township because of the following population trends:

- In the last 30 years, the population of Kawkawlin Township has grown steadily. Between 1970 and 2000, the Township increased in population by 23.4%. New singlefamily residences will be needed to accommodate this growth.
- The number of persons per household has continued to decline over the past three decades.
   Because of this, more homes will be needed to accommodate the fewer number of people living in each home.

The single-family land use classification is primarily concentrated in the eastern

half of the Township and along the Saginaw Bay shoreline. Much of this land use category is made up of existing singlefamily parcels. The remaining lands in this category are proposed for future singlefamily residential development.

Keeping single-family residential development within these designated areas will promote orderly growth, as opposed to "leap-frog development," and will result in a cost-effective expansion of Township services.

The single-family residential classification is the second largest land use category and covers 5,931 acres or 27.5% of the Township. It is intended to provide areas for suburban-style, single-family residential development and related uses such as golf courses, athletic fields, churches, and daycare facilities. It is recommended that the district maintain a density of 2 to 4 units per acre for lots with access to public utilities and 1 to 2 units per acre for lots with no public utilities. New single-family developments, which are needed to accommodate the Township's growing population, should conform to the Township's rural nature and be compatible with existing neighborhoods.

#### 3. Multi-Family Residential

The multi-family residential classification is intended to provide opportunities for affordable housing and alternatives to traditional single-family homes. Duplexes, townhouses, condominiums, and apartments are envisioned for this district.

Kawkawlin Township currently has only a few multiple-family units. Therefore, a new concentration of land is proposed for multifamily use in the Future Land Use Plan. This concentration is located in the Linwood area north of Lebourdais Road. Proposing new lands for multiple-family development is needed in Kawkawlin Township to provide housing for the following population groups:

- The empty nester (45-64 years old) and elderly (65 years and older) age groups. Between 1990 and 2000, these two age groups were the only ones in the Township which grew as a percentage of the total population. These older citizens require alternate forms of housing such as apartments and condominiums to accommodate different needs and preferences.
- Single Persons. The Township has a growing percentage of singlepersons living alone, a group which grew from 17.6% in 1990 to 20.1% in 2000. Single-persons, who often can not afford single-family homes, need quality, affordable housing such as apartments.

The following criteria should be used when a new proposal for a multiple-family development comes before the Township:

- In keeping with the rural character of the Township, the density for new developments should be kept to no more than 20 housing units per acre.
- Since multiple-family development generates more traffic than singlefamily development, adequate transportation facilities should be available.
- The new development should incorporate and preserve significant environmental features such as woodlands where possible.

#### 4. Manufactured Home Park

Currently, manufactured home parks comprise 83 acres of the Township. No locations for new manufactured home parks have been designated in the Future Land Use Plan. Future manufactured home parks should be appropriately located in areas suitable for such development, and which would not adversely affect the surrounding areas.

#### 5. Commercial

This category includes many of the existing commercial uses in the Township, comprising 105 acres. No new lands have been placed in the commercial category. All new commercial developments in Kawkawlin Township are encouraged to be located in the Commercial Node or Business Opportunity Center categories, described below.

#### 6. Commercial Node

This category is intended to support predominantly freestanding commercial and office uses that serve both the local and regional market. The commercial node category includes many existing commercial establishments but also is intended to accommodate new commercial uses. In total, the commercial node land use category comprises 322 acres or 1.5% of the Township.

There are three commercial nodes proposed in Kawkawlin Township located at three strategic intersections along M-13. These locations are M-13 at Linwood Road, M-13 at Parish Road, and M-13 at Beaver Road. The intent of these three commercial nodes is to concentrate new commercial developments at these locations as opposed to allowing strip commercial development along the entire extent of M-13.

The following criteria should be used to determine the suitability for a new commercial development.

- The local or regional market must show a clearly defined need for the proposed commercial development.
- The proposed development should be compatible with the surrounding property uses and an acceptable buffer or screen should be provided between the proposed development and adjoining residential uses.

#### 7. Business Opportunity Center

Because of Kawkawlin Township's advantageous location along I-75 with two freeway interchanges, and proximity to major population centers, the Township can become a major center of regional commerce and employment. The plan proposes the creation of two well-defined business opportunity centers to be located at the I-75 and Linwood Road interchange and I-75 and Beaver Road interchange.

The exact nature of these proposed business centers is not known at this time, but possible uses may include, industrial parks, office parks, retail centers, or mixed use retail/employment/housing developments. The proposed centers should be developed and promoted around a theme unique to Kawkawlin Township, and should include desirable amenities such as decorative signage, streetscaping, light posts, and landscaping.

The two business opportunity centers have the potential of becoming major retail and employment centers in the region. The Township should prepare a unified plan of development and aggressively market the center's major attributes, including easy access from I-75, availability of utilities, and vacant parcels in various sizes.

#### 8. Industrial

The Future Land Use Plan designates a total of 409 acres or 1.9% of the Township as Industrial. The category includes existing industries as well as new lands well suited for industrial developments along M-13, south of Beaver Road. Providing new locations for industries is important to Kawkawlin Township in order to promulgate the established industrial goal of "encouraging a variety of light industrial developments with attractive sites to

strengthen the tax base and provide employment opportunities for area residents." The following criteria should be used for evaluating new industries:

- The development should have good access via a major road.
- The development should be adequately served by public utilities.
- The proposed development should have minimal adverse impact on existing residential neighborhoods.

#### 9. Public/Semi-Public

The Public/Semi-Public district, 134 acres, or 0.6%, is comprised of all the existing public and semi-public uses in the Township excluding those that are now a part of the proposed Business Opportunity Centers and Township Center. Future public and semi-public uses should be appropriately located in areas suitable for development with appropriate utilities and transportation access.

#### 10. Township Center

In order to give Kawkawlin Township a central focal point for community facilities and services, the Future Land Use Plan proposes the creation of a Township Center. This Township Center is to be located along Parish Road, where the existing Kawkawlin Township municipal buildings and park is located. The proposed 150-acre district is expected to expand upon the existing facilities and may include new community facilities such as a library or community center.

### 11. Recreation

The recreation land use category occupies a total of 1,630 acres or 7.6% of the Township. This category is composed primarily of the Tobico Marsh State Game Area, but also includes existing recreation facilities such as Linwood Park and Hoyles Marina. A new area for recreation development is proposed in the

northeastern corner of the Township near the Saginaw Bay shoreline. This area should capitalize on the presence of the Saginaw Bay, Hoyles Marina, and condominium developments nearby, in developing a water themed recreation facility.

The Plan also proposes the development of a bike trail linking the key recreation features of the Township. The trail is proposed to be located along Parish Road and Linwood Beach Road connecting the Kawkawlin Township Park, Hoyles Marina, Kawkawlin Township Brisette Beach, and the Tobico Marsh State Game Area.

In order to promote the development of new parks in the Township, the Plan recommends the development of a Michigan Certified Community Recreation Plan. The Recreation Plan, if developed according to the requirements established by the Michigan Department of Natural Resources (MDNR), and certified by MDNR, would allow the Township to seek State funding for recreational facilities. The MDNR certified plan is good for five years.

#### 12. Other Future Land Use Categories

Map 8 also includes categories for water bodies (165 acres or 0.8%) and for road and railroad rights-of-way (82 acres or 0.4%).

#### 13. Additional Recommendations

In addition to the aforementioned land uses, the Future Land Use Plan also recommends the following:

#### Township Entryway

Kawkawlin Township has an advantageous location along major state highways, well traveled local roads, and in close proximity to urban centers and regional tourist attractions as mentioned earlier in

this report. In order to capitalize on this location, the plan recommends the development of four Township entryways at strategic locations. Each entryway is intended to establish a positive image for people driving into or passing through the Township. The locations for the four entryways are as follows:

- M-13 at the southern border of the Township
- M-13 at the northern border of the Township
- I-75 at Beaver Road
- I-75 at Linwood Road

An entryway is not intended to be a particular land use district. It is meant to serve as an area where the Township would encourage attractive developments, alleviate blight, if it exists, and install specially attractive features such as ornamental lights, signs, banners, and landscaping. Most of these features can be installed on the street right-of-way, or on private property easements. The Township will require permission from the Michigan Department of Transportation (MDOT) to make any improvements along state highways.

### Major and Minor Roads

The Plan classifies all streets as either major roads or local roads. Kawkawlin Township has several major roads, and the rest of the roads are classified as local roads. Because of the importance of the major roads as regional thoroughfares, there exists an opportunity for the Township to capitalize through enhancement and beautification of the roads and their adjoining land uses. Streetscape plans, proper landscaping requirements, and access control policies are all strategies that can enhance the experience of travelers on these roads, and possibly draw more tourists and new development.

## 5.5 Development Phases

In order to best coordinate new urban development with a cost-effective expansion of public services and facilities, the future development of Kawkawlin Township should be phased accordingly. **Map 9** divides Kawkawlin Township into three development phases which are best suited for the Township given the existing development pattern and the extent of existing public utilities.

The first phase of development is estimated to occur in the next 10 years. This phase includes the eastern one-third of the Township and the I-75 and Linwood Road interchange. The majority of new development in Kawkawlin Township for the next 10 years should occur in this designated area. The expansion of public utilities such as water and sewer lines should also occur in this area.

Phase two is estimated to occur between 10 to 15 years from now, after the first phase of development has been completed. This phase includes the central one-third of the Township and the I-75 and Beaver Road interchange.

Lands designated as phase three are located in the western one-third of the Township. The estimated time frame for development is beyond 15 years, but it is quite probable that development in Kawkawlin Township will not extend into this area in the foreseeable future.

## 5.6 Using the Plan

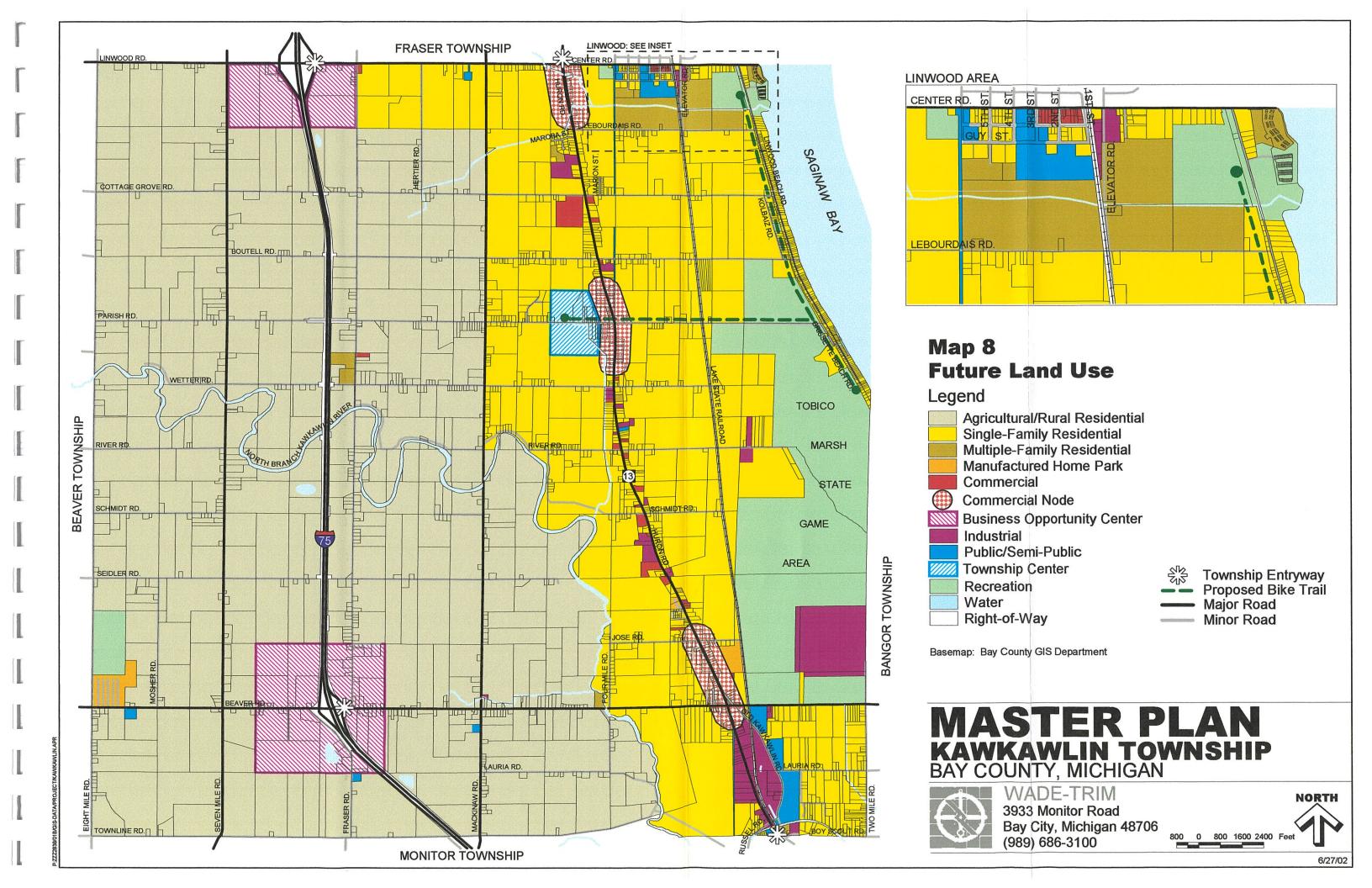
Now that the Future Land Use recommendations have been laid out for the Township, it is appropriate to describe how to put the Plan to use. It is important to remember that the Master Plan and its Future Land Use Map is not a legal document, and should not be confused with the Zoning Ordinance or map. In fact, the Zoning Map and Future Land Use Map may not even look the same. The key difference is that Zoning deals with land use now, and

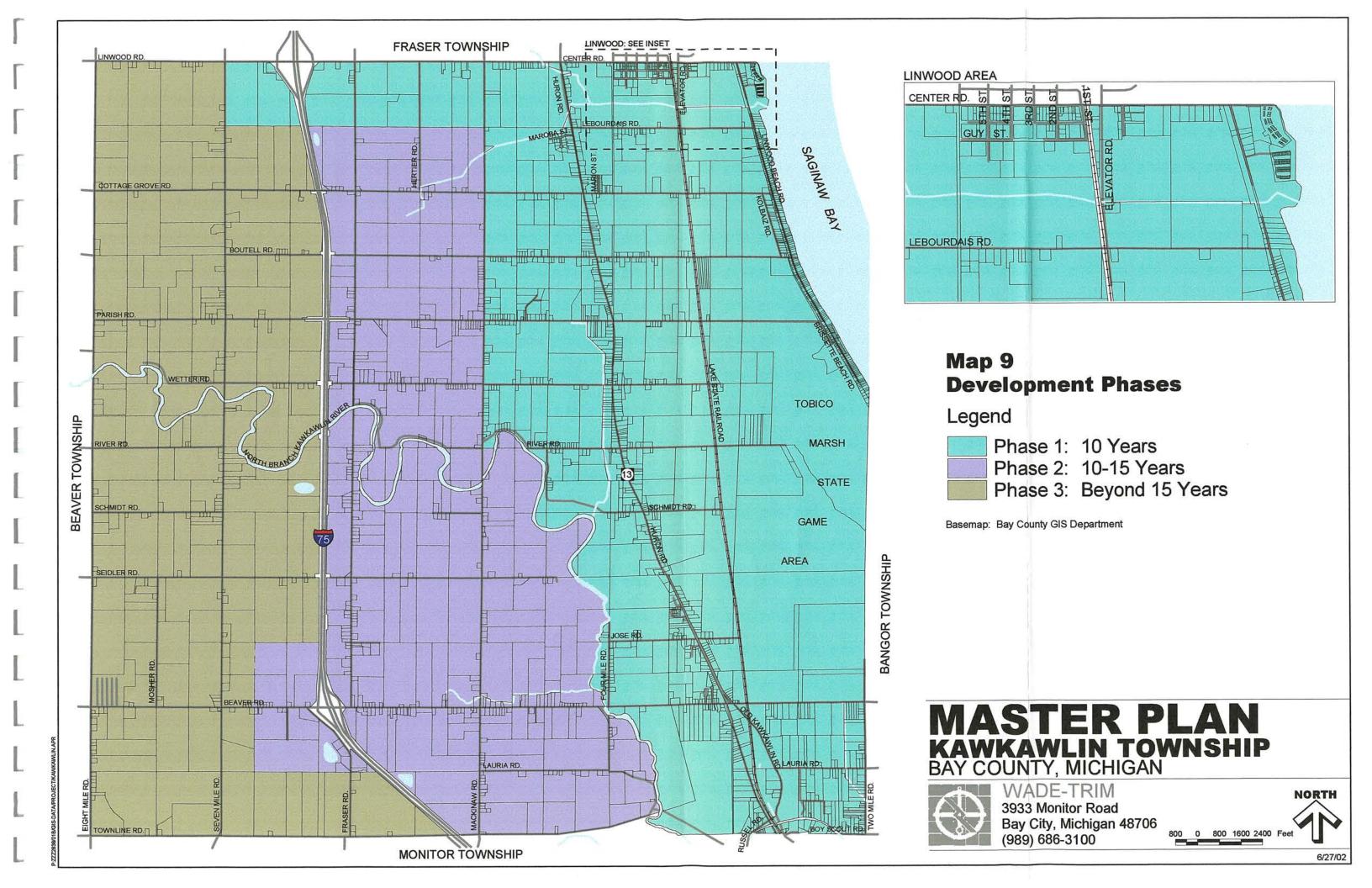
the Master Plan prescribes a vision for land use in the future and acts as a guide to get you there.

One of the principal benefits of having an adopted Master Plan is the foundation it provides for zoning decisions. As the Township Board or Planning Commission is faced with making zoning and land use decisions, the respective bodies should consider the recommendations as set forth in the Master Plan. Rezonings, site plan reviews, and special land uses should conform with the principles found in the Master Plan.

Flexibility is a key strength of the Master Plan. Changing trends, circumstances, unanticipated opportunities, and unforeseen problems may necessitate an amendment to the Master Plan. If a new development proposal appropriate for the Township does not conform to the Master Plan, the Master Plan should first be amended before the proposal is approved. If an amendment occurs, it is important to know that the rest of the Plan is still relevant. The Plan will only become irrelevant or obsolete if the Master Plan is not updated when changes occur in the municipality.

In order to keep the Master Plan up to date, it is important to schedule periodic reviews of the Master Plan. It is recommended that a meeting of the Planning Commission be held at least once every five years, just for the purpose of reviewing the Plan and considering appropriate amendments.





## 6.0 Plan Implementation Resources

Kawkawlin Township's Master Plan is a long-range community policy statement comprised of a variety of both graphic and narrative recommendations intended to provide guidelines for making reasonable and realistic community development decisions. The Plan is intended to be employed by Township officials, by those making private sector investments, and by all citizens interested in the future development of the Township.

The completion of the Plan is but one part of the community planning process.

Realization, or implementation of the goals, objectives, and recommendations of the Master Plan can only be achieved over an extended period of time and only through the cooperative efforts of both the public and private sectors. This section will serve as a reference guide for the Township as it moves through the Plan Implementation process.

**Table 13** provides a listing of all the plan implementation resources included in this section. Following the table is a description of each resource.

Table 13
Plan Implementation Resources

Keys to Successful Implementation	Grant and Loan Programs
Knowledgeable Local Officials	Federal
2. Public Support	Community Facilities Program
3. Co-Development	Public Works and Economic Development     Program
Implementation Tools	Rural Business Enterprise Grants
1. Zoning Ordinance	Water and Wastewater Disposal Loan and Grant     Program
Subdivision Regulations	
3. Enforcement	State
<ol><li>Capital Improvements Program</li></ol>	5. Clean Michigan Initiative
5. Michigan Certified Community Recreation Plan	6. Community Development Block Grant (CDBG)
6. Downtown Development Authority (DDA)	7. Michigan Natural Resources Trust Fund
7. Local Development Finance Authority (LDFA)	8. Transportation Economic Development Fund
8. Special Assessment Districts	Other Funding Options
Sources of Information	Local
1. Michigan Townships Association	1. Revenue Bonds
2. County Extension Services	2. General Obligation Bonds
3. Regional Planning Agency	3. Local Funds
4. Other Local Officials	
5. Libraries	4. Local Businesses
6. Internet	5. Local Foundations

Source: Wade-Trim

# 6.1 Keys to Successful Implementation

### 6.1.1 Knowledgeable Local Officials

Ultimately, the responsibility for implementing the Master Plan falls into the hands of the local officials of Kawkawlin Township. This is why it is very important that the Township Board, Planning Commission, and the various municipal departments be knowledgeable and focused on achieving the implementation of the Master Plan. The local officials have to be the catalysts for action, leading the community in the right direction.

#### 6.1.2 Public Support

It is critical that the citizens of Kawkawlin Township acknowledge, understand, and support the Master Plan. In order to organize public support most effectively, Kawkawlin Township must emphasize the necessity of instituting the Planning Program and encourage citizen participation in the planning process.

Lack of citizen understanding and support could have serious implications for the eventual implementation of planning proposals. Failure of the public to support needed bond issues and continuing dissatisfaction concerning taxation, special assessments, zoning decisions, and development proposals are some of the results of public misunderstanding and rejection of long-range plans.

#### 6.1.3 Co-Development

Implementing the goals and objectives of the Master Plan requires that the private and public sector work together on development projects. Co-development is simply the joint public and private investment for a common purpose. Working in a partnership allows for Kawkawlin Township to become involved in such things as site location selection, planning, site design, utilities and other service agreements, and tax incentives and abatements. These partnerships help to foster development-friendly environments, where the Township benefits from increased tax revenue, and the private developers can benefit from decreased cost of improvements.

## **6.2** Implementation Tools

#### 6.2.1 Zoning Ordinance

Zoning Ordinances are essential in implementing the goals and objectives of the Master Plan. The authority to create a Zoning Ordinance is given to a Township by the State under the Township Zoning Act 184 of 1963, as amended, for the purpose of promoting community health, safety, and general welfare. Zoning regulations have been strongly supported by the Michigan courts, as well as by the United States Supreme Court.

The intent of zoning is to assure the orderly development of the community. Zoning does this by dividing the community into districts in order to establish a density of population, and regulate the use of land and buildings. Zoning also promotes the general welfare of a community by protecting homes and investments against the potential harmful intrusion of business and industry into residential neighborhoods, requiring the spacing of buildings far enough apart to assure adequate light and air, preventing the overcrowding of land, facilitating the economical provision of essential public facilities, and aiding in the conservation of essential natural resources. This, in turn, helps to protect the property values of the community.

Because of the importance of zoning, and the great impact which zoning can have on the use of land and related services, it should be based on principles derived from this Master Plan.

#### 6.2.2 Subdivision Regulations

When a developer proposes to subdivide land, he or she is in effect, planning a portion of the Township. To assure that such a development is in harmony with the Master Plan objectives, a subdivision regulation ordinance may be

created in accordance with the Michigan Subdivision Control Act 288 of 1967, as amended, and the Michigan Land Division Act 591 of 1996.

Several direct benefits accrue from the regulation of subdivisions by a local unit of government. By requiring the subdivider to install adequate utilities and improved streets, purchasers of the lots are not later burdened with unanticipated expenses. A subdivision without adequate physical improvements is detrimental not only to itself, but it also reduces the opportunity for reasonable development of adjacent parcels. In addition, long-range economy in government can be realized only when the subdivider provides adequate improvements.

As a part of its review of proposed subdivisions, the Planning Commission focuses on such features as the arrangement and width of streets, the grading and surfacing of streets, drainage of storm water, the width and depth of lots, the adequate provision of open space, and the location of easements for utility installations. The subdivision review process is one of the methods of implementing the goals and objectives of the community's long-range Plan.

#### 6.2.3 Enforcement

The ultimate effectiveness of the zoning, subdivision, and other regulations depends on the effective administration and enforcement by the community. If administrative procedures are lax, or if enforcement of regulations is handled in an inconsistent, sporadic manner, the result will be unsatisfactory at best.

The Zoning Administrator is often responsible for carrying out zoning/development related functions, including building inspections, ordinance administration, and community/ developer liaison. Each of these functions requires a substantial investment of staff time. If sufficient time is not made available to carry

out these critical functions, they may only be accomplished in a cursory manner. Therefore, the Township should provide for adequate staff levels and/or consulting assistance to assure that these essential day-to-day functions will receive the professional attention required.

#### **6.2.4 Capital Improvements Program**

The term "capital improvements" is generally intended to embrace large-scale projects of a fixed nature, the implementation of which results in new or expanded public facilities and services. Such items as public building construction, park development, sewer installation, waterworks improvements, street construction, land acquisition, and the acquisition of certain large-scale pieces of equipment (graders, sweepers, trucks, etc.) are included in the Capital Improvements Program.

Few communities are fortunate enough to have sufficient revenues available at any given time to satisfy all demands for new or improved public facilities and services. Consequently, most are faced with the necessity of determining the relative priority of specific projects and establishing a program schedule for their initiation and completion. The orderly programming of public improvements is to be accomplished in conjunction with a long-range plan.

In essence, the Capital Improvements Program is simply a schedule for implementing public capital improvements, which acknowledges current and anticipated demands, and which recognizes present and potential financial resources available to the community. The Capital Improvements Program is a major planning tool for assuring that public improvements proceed to completion in an efficient manner. The Capital Improvements Program is not intended to encourage the spending of additional public monies, but is simply a means by which an impartial evaluation of needs may be made. The Program typically is prepared for a five-year period, the first year of which is called Capital Improvements Budget.

Long-range programming of public improvements is based upon three fundamental considerations. First, the proposed projects must be selected on the basis of community need. Second, the program must be developed within the community's financial constraints and must be based upon a sound financial plan. Finally, program flexibility must be maintained through the annual review and approval of the capital budget. The strict observance of these conditions requires periodic analysis of various community development factors, as well as a thorough and continuing evaluation of all proposed improvements and related expenditures.

It is essential that in the process of preparing and developing the program, the Planning Commission be assigned a role in reviewing project proposals to assure conformity with the Master Plan and to make recommendations regarding prioritizing projects, and appropriate methods of financing.

# 6.2.5 Michigan Certified Community Recreation Plan

Any community can develop a community recreation plan. This plan helps to determine a community's future recreation needs, and proposes solutions to meet such needs. In addition to this, a certified community recreation plan allows the local government to apply for grant funds through the Michigan Department of Natural Resources (MDNR) such as Clean Michigan Initiative, and Michigan Natural Resources Trust Fund.

## 6.2.6 Downtown Development Authority (DDA)

A local unit of government may create a Downtown Development Authority in order to halt property value deterioration, increase property tax valuation, and promote economic growth in a central business district. A DDA has the authority to create development plans, encourage historic

preservation, authorize acquisition of property, and promote economic growth. A DDA may utilize Tax Increment Financing as a tool for generating revenue.

## 6.2.7 Local Development Finance Authority (LDFA)

A city, village, or urban township may create a Local Development Finance Authority to finance public facility improvements, using Tax Increment Financing. Eligible properties are manufacturing, processing of goods and materials by physical or chemical change, agricultural processing, or high technology activity.

For example, upon designation of a LDFA, a community may develop an industrial park and use captured revenues from eligible property within the park for public facilities improvements within the park.

### **6.2.8 Special Assessment Districts**

Special assessments are a fee levied by the community for the financing of local improvements that are of primarily benefit to the landowners that must pay the assessment. Taxes levied for public improvements within a Special Assessment District can be applied to such things as utilities systems, public roads, rubbish collection, bicycle paths, parks, sidewalks, lighting, and tree maintenance.

## 6.3 Grant and Loan Programs

## 6.3.1 Community Facilities Program

#### <u>Agency</u>

U.S. Department of Agriculture, Rural Housing Service

#### Description

This program is designed to provide loan guarantees, loans, and grants to construct, enlarge, or improve essential community facilities in rural areas. Examples of these facilities are fire and rescue facilities, jails,

health clinics, nursing homes, airports, city halls, libraries, community centers, and schools.

#### Michigan Examples

Albee Township Township Hall Direct Loan, \$500,000

Tawas City Fire Hall Direct Loan, \$750,000

Deckerville

Deckerville Community Hospital, equipment Guaranteed Loan, \$350,000

Bay City Health Delivery Inc, Medical Facility Direct Loans, \$1,390,000

#### Contact

Rural Development Field Office 1075 Cleaver Rd. Caro, MI 48723 Phone: (989) 673-7588 Fax: (989) 673-1848

#### Eligibility

Municipalities, counties, special purpose districts, and nonprofit corporations.

#### Funding Available Nation Wide

FY 1999: \$210,000,000 for loan guarantees FY 1999: \$169,475,983 for direct loans FY 1999: \$6,500,000 for grants

## 6.3.2 Public Works and Economic Development Program

#### Agency

Economic Development Administration, U.S. Department of Commerce

#### Description

This program empowers communities in economic decline to revitalize, expand, and upgrade their physical infrastructure to attract new industry, encourage business expansion, diversify local economies, and generate or retain long-term, private sector jobs and investment.

#### Michigan Examples

Kalkaska

Infrastructure development for industrial park \$312,000

Reed City Water system improvements \$815,000

Boyne City Water & sanitary sewer system for industrial park \$835,000

Farwell Infrastructure development for industrial park \$665,000

#### Michigan Contact

State Office of the Economic Development Administration Traverse City, MI Phone: (231) 938-1712

#### Eligibility

Municipalities, economic development districts, higher learning institutions, and public and private nonprofit organizations.

#### Funding Available Nation Wide

FY 1999: \$205,748,000

Average FY 1999 grant: \$829,000

## 6.3.3 Rural Business Enterprise Grants

#### <u>Agency</u>

U.S. Department of Agriculture, Rural Business Services

#### Description

The Rural Business Enterprise Grants help to finance and facilitate the development of small and emerging private business enterprises. Costs that may be paid from grant funds include the acquisition of land, construction, utility extensions, professional services, and training fees, among others.

#### Michigan Project Examples

Iron County
Creation of a revolving loan fund for small businesses

Ontonagon County Technical Assistance for businesses

Created for Caring, Bay City Technical Training

Dowagiac Water and Sewer Connections for small businesses

#### Contact

Rural Business & Cooperative Development Services Office Lansing, MI Phone: (517) 324-5220

#### Eligibility

Eligibility is limited to public bodies and private nonprofit corporations in rural areas with a population of less than 50,000.

## 6.3.4 Water and Wastewater Disposal Loan and Grant Program

#### Agency

U.S. Department of Agriculture

#### Description

This program provides loans, guaranteed loans, and grants for water, sewer, storm water, and solid waste disposal facilities in rural areas and towns of up to 10,000 people. Loan and grant funds may be used to: a) construct, repair, modify, expand, and improve water and waste facilities, b) acquire needed land, water sources, and water rights, and c) pay development costs for these facilities.

#### Michigan Examples

Pinconning New sewer treatment plant

Elsie Sewer system improvements

Bancroft Water system improvements

#### Contact

Rural Development Field Office 1075 Cleaver Rd. Caro, MI 48723 Phone: (989) 673-7588 Fax (989) 673-1848

#### **Eligibility**

All public entities – municipalities, counties, and special purpose districts in rural areas of up to 10,000 people.

#### Funding Available Statewide

FY 2000: Loan - \$26,259,000 FY 2000: Grant - \$13,008,000

## 6.3.5 Clean Michigan Initiative

#### <u>Agency</u>

Michigan Department of Natural Resources

#### Description

This program's objective is to provide grants to local units of government for the development and renovation of public outdoor and indoor recreation facilities.

#### Michigan Examples

Mills Township, Midland County Construction of jogging track at Mills Township Park \$79,500

Tittabawassee Township, Saginaw County Construction of overlook pier at Memorial Park \$22,688

Huron County Facilities improvements to Caseville County Park \$372,400

#### Contact

Regional Operations Office Lansing, MI Phone: (517) 241-4128

#### **Eligibility**

Any local government with a DNR approved community recreation plan. No school districts.

#### Funding Available

Minimum grant: \$15,000; maximum grant: \$750,000

## 6.3.6 Community Development Block Grant (CDBG)

#### <u>Agency</u>

Michigan Department of Commerce, Economic Development Corporation

#### **Description**

The CDBG program promotes community and economic revitalization through programs that support a wide variety of housing rehabilitation, public facilities and infrastructure, public services, and economic development projects, including brownfields redevelopment.

#### Michigan Examples

Hope Township, Midland County Infrastructure improvements for business expansion project \$250,350

Village of Mayville, Tuscola County Utilities and street improvements for manufacturing expansion project \$121,500

City of Lapeer Infrastructure improvements for manufacturing company \$270,766

City of Yale, St. Clair County Infrastructure improvements for industrial expansion project \$86,000

#### Contact

Business Finance Office, Economic Development Corporation 201 North Washington Square 3<sup>rd</sup> Floor Lansing, MI 48913 Phone: (517) 335-1951

#### **Eligibility**

The non-entitlement community portion of the CDBG can apply to all local government units. The entitlement community portion of the CDBG applies to local government units with 50,000 or more residents.

#### Funding Available Nation Wide

FY 2000: \$4.23 billion

## 6.3.7 Michigan Natural Resources Trust Fund

#### **Agency**

Michigan Department of Natural Resources

#### Description

Provides grants for local units of government for the acquisition and development of lands and facilities for outdoor recreation or the protection of Michigan's significant natural resources.

#### Michigan Examples

Bad Axe Buschlen Park Expansion \$136,500

Bay County Boat Launch Expansion \$228,000

Meridian Township Ferguson Park Extension \$103,875

Midland County Pere Marquette Rail-Trail \$117,040

#### Contact

Regional Operations Office Lansing, MI Phone: (517) 241-4128

#### **Eligibility**

Any unit of government including school districts. Local units of government must have a DNR approved recreation plan.

#### Funding Available State Wide

FY 2000: \$20-25 million Individual grant: \$15,000-\$500,000 – no limits on land acquisition

## 6.3.8 Transportation Economic Development Fund

#### Agency

Michigan Department of Transportation (MDOT)

#### **Description**

The Transportation Economic Development Fund is a program that makes available funds for street improvements that are directly tied to economic expansion. Street construction within an industrial park is a common type of project funded with the help of the Transportation Economic Development Fund. There are six different project categories (A - F) within this fund, each relating to different project situations and municipality types.

#### Michigan Examples

Isabella County Coldwater Rd. reconstruction \$300,000

Oscoda County Abbe Rd. reconstruction \$146,000

Lapeer County Graham Rd. reconstruction \$248,741

### Contact

Office of Economic Development P.O. Box 30050 Lansing, MI 48909 Phone: (517) 335-1069

#### **Eligibility**

The different project categories (A-F) have different eligibility requirements.

#### Funding Available Statewide

FY 1996: \$23,424,351

## 6.4 Other Funding Options

#### 6.4.1 Revenue Bonds

Revenue Bonds are those issued for various public improvement projects that are backed by the future revenues generated from the improvements. For example, water systems are improved by the sale of bonds, which are then repaid by water rates charged to the customers of the system. Sewer systems, airports, marinas, and other public facilities are often constructed by means of revenue bonds.

#### 6.4.2 General Obligation Bonds

General Obligation Bonds are those that are issued by a municipality or other public body that are backed by the "full faith and credit" of that body. The municipality usually pledges its taxing ability, and therefore future tax revenues, to make the payments on the bonds. Because of the "full faith and credit" issue, and therefore a low amount of risk of default by the Township, these types of bonds usually attract the lowest interest rate.

### 6.4.3 Local Funds

In order to receive financial assistance from grant and loan programs, a community must also contribute a matching amount of funding for any project. It would be nearly impossible to receive funds from other sources without contributing some amount of general revenue funds as well. In general, the more a community contributes to a project, the more likely that community will receive grants and loans. Also, the more money a community contributes means that they might receive a greater amount of grant and loan funding.

#### 6.4.4 Local Businesses

Seeking the help of your local businesses may result in much needed support for various public projects in the form of cash donations, material donations, and advertising, among others.

#### 6.4.5 Local Foundations

Similar to the local businesses, local foundations might be able to provide support for civic projects.

#### 6.5 Sources of Information

## 6.5.1 Michigan Townships Association

Provides training, newsletters, and consultations to Township officials.

512 Westshire Drive P.O. Box 80078 Lansing, MI 48908 (517) 321-6467

### **6.5.2 County Extension Services**

In Michigan, extension agents are concentrating on assisting communities with land use problems, free of charge. Agents may serve as meeting facilitators and may be able to access additional help from Michigan State University faculty.

Bay County Extension 515 Center Avenue Bay City, MI 48708 (989) 895-4217

## 6.5.3 Regional Planning Agency

Regional Planning Agencies were created in Michigan to act as coordinating agencies for the local governmental units they serve. These agencies create development plans, and conduct all types of research and studies for their planning region. Regional Planning Agencies also work to promote cooperation between the many different governmental units within their region. A local government may find their Regional Planning Agency to be a valuable resource for information and guidance. Municipalities in Bay County may seek guidance from:

East Central Michigan Planning and Development Region 3535 State St. Saginaw, MI 48602 (989) 797-0800

#### 6.5.4 Other Local Officials

Talking with other local units of governments with similar issues and problems can be extremely beneficial in determining successful land use policies and strategies.

#### 6.5.5 Libraries

Your local library is always a good starting point as a source of information for a community. Historical records, historical business listings, and maps can all be utilized in local government research.

#### 6.5.6 Internet

The Internet can be an invaluable resource for local communities. The following web sites may be useful:

American Planning Association – http://www.planning.org

Michigan Department of Environmental Quality – <a href="http://www.deq.state.mi.us">http://www.deq.state.mi.us</a>

Michigan Department of Natural Resources – http://www.dnr.state.mi.us

Michigan Department of Transportation http://www.mdot.state.mi.us

Michigan Economic Development Corporation – http://medc.michigan.org

Michigan Government Home Page – http://www.state.mi.us

Michigan Townships Association – http://www.mta-townships.org

Planning and Zoning Center – http://www.pzcenter.com

U.S. Department of Housing and Urban Development – <a href="http://www.hud.gov">http://www.hud.gov</a>

U.S. Census Bureau - http://www.census.gov

U.S. Environmental Protection Agency – http://www.epa.gov

U.S. Department of Agriculture – http://www.usda.gov