

2013 Master Plan

CHARTER TOWNSHIP OF MONITOR, BAY COUNTY, MICHIGAN

FINAL JULY 8, 2013

Monitor Charter Township Bay County, Michigan

Master Plan

July 8, 2013

Prepared with the assistance of:



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Introduction

Locational Context

Monitor Township is in south-central Bay County, Michigan. Bay County is situated at the head of Saginaw Bay in Lake Huron. The Township borders Bay City and Bangor Township to the east, Kawkawlin Township to the north, Williams Township to the west, and Frankenlust Township to the south. The northwest corner of the Township is approximately 3.5 miles from Saginaw Bay to the northeast. Lansing lies about 90 miles southwest, and Detroit is about 120 miles southeast.

Monitor Township covers more than 36 square miles of land. I-75/US-23, US-10, M-84 and M-13 traverse the Township, making Monitor easily accessible to Bay City, Midland, Saginaw and other area communities. In the past, Monitor's pastoral agricultural character and proximity to metropolitan areas made it a desirable bedroom community.

Historic Context

Several Native American nationalities including the Algonquin, Outaoua, Huron and Ottawa peoples inhabited the Saginaw Bay area before European settlers. In 1834, Joseph and Mader Trombley were the first Europeans to settle in what is now Bay County. They established a residence near where Water and 25th Streets now intersect in Bay City. The Trombles established Centre House, a land development office and trading post. Shortly after their arrival, American settlers inhabited the area and cleared vast pine forests for farming.

Stands of white pine covered the Saginaw River Valley including present day Monitor Township. This vast resource fueled the lumber industry creating new opportunity and a subsequent increase in population. Coal extraction became an important industry to the Township's economy at the turn of the twentieth century. In part, coal extraction occurred out of necessity to meet local and regional heating needs. Monitor Township was home to the Michigan Mine, Bay County's first coal mine. Later, the Monitor Coal Mining Company opened and attracted an influx of coal miners from Ohio and Pennsylvania. Due to better grades of coal extracted elsewhere and new fuel sources, the Township's coal extraction activities ceased and the last mine closed in 1947.

Agriculture and related industries have remained economically important throughout Monitor Township's rich history. By 1900, Monitor Township's German-American Sugar Company processed locally grown sugar beets. The state placed mandates on sugar beet production to start the sugar industry in Michigan. Township farmers produced large beet yields to help the state achieve its goal.

Public Participation

The Monitor Township Planning Commission, per the Michigan Planning Enabling Act (Act 33 of 2008) followed all required public participation procedures. When the planning process began,

surrounding local units of government, Bay County, railroads, utilities and other entities who have registered with the Township were notified of the Township's intent to plan. When the Township Board released a draft plan for review and comment and set a public hearing date, all interested parties were notified and the draft Master Plan was placed on the Township's website for review. A public hearing was held at the regularly scheduled June 4, 2013 Planning Commission meeting. Below is an excerpt from the June 4, 2013 Planning Commission Minutes:

Master Plan Public Hearing

Michael Gradis explained the process of review for the Master Plan which have been observed. He recommends that the Master Plan be forwarded to the Township Board for adoption.

Motion by Hoyle supported by Frank to open the Master Plan to public hearing. Motion carried.

Laura Ogar, Bay County Director of Environmental Affairs and Community Development, noted that leaving the PA116 property map out of the Master Plan was probably a good idea as parcels in PA116 can change frequently for a number of reasons. She felt that this was a very well done plan and a good and important project to have undertaken.

The County probably has the most accurate PA116 information available and that is always available to the townships. They could map it for the township if we would like.

Campbell moved to close Public Hearing of the Master Plan. Supported by Hoyle. Motion carried.

Motion by Darland supported by Hoyle to recommend the Master Plan be approved by the Township Board as presented.

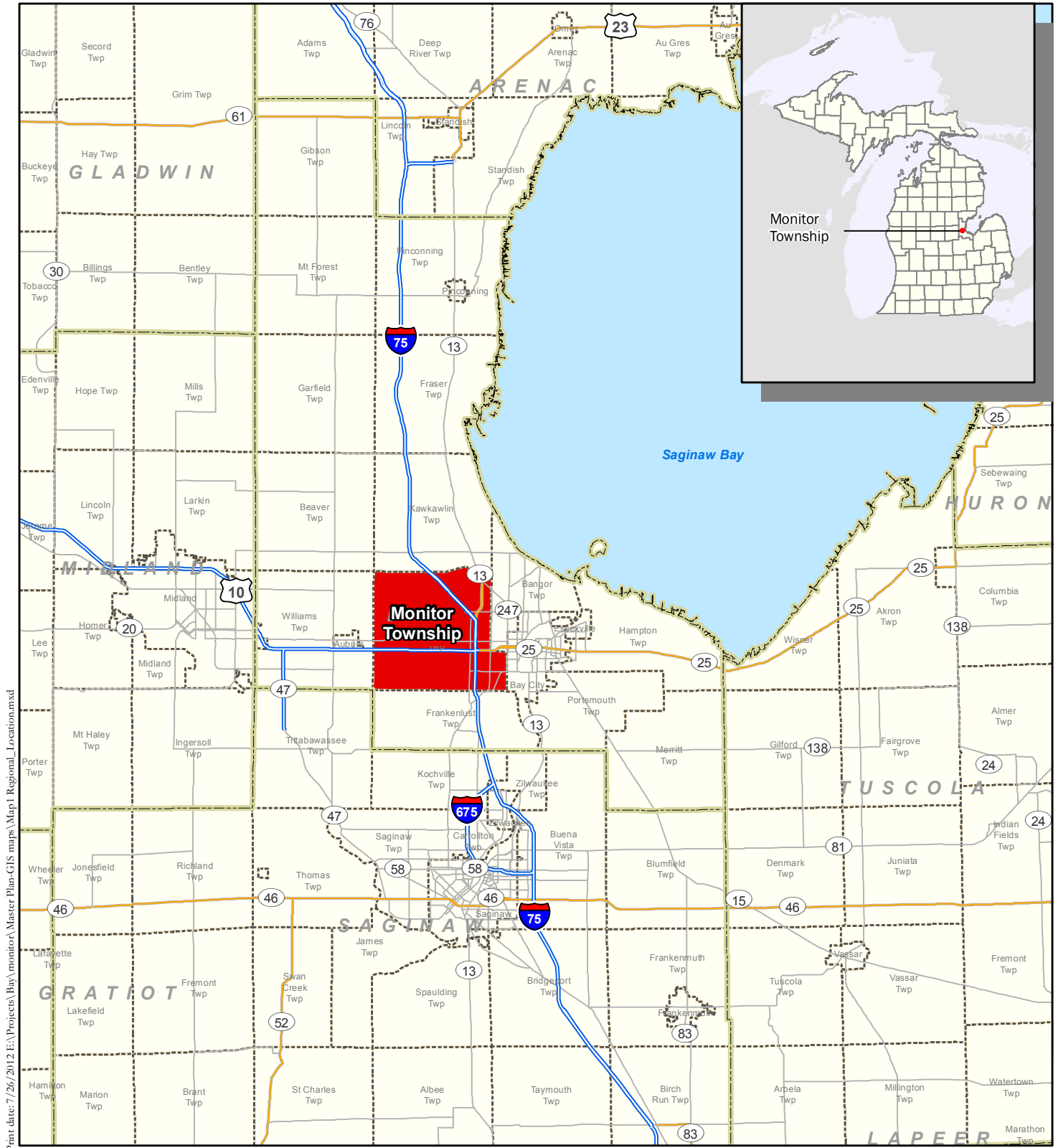
Roll call:

Yes: Frank, Hoyle, Morin, Arnold, Bellor, Campbell, Darland

No: None

Motion carried.

On July 8, 2013, the Township Board of Trustees Adopted the Master Plan. A copy of the adopting resolution is included in this plan (either at the front or back of this plan) and is also available at the Township Hall for review.



Print date: 7/26/2012 E:\Projects\Bay\monitor\Master Plan\GIS maps\Map1 Regional_Location.mxd

July 8, 2013

Data Source: Michigan Geographic Framework,
Michigan Center for Geographic Information, Version 8a

Map 1 Regional Location

Charter Township of Monitor
Bay County, Michigan

LEGEND

- Interstates
- US Highways
- State Highways
- County Boundaries
- Surrounding Municipalities
- Monitor Township

0 30 60
Miles



McKENNA
ASSOCIATES

Natural Features

Natural Features

Monitor Charter Township's unique combination of geology, climate, soil conditions, water features, and vegetation play a critical role in affecting current and potential land use. These five categories of natural features are important to help the Township determine likely and potential future land use patterns.

Geologic Context

Monitor contains deep sedimentary rock layers. At one time, lake water covered the entire region, depositing dead organic material on the lake floor or on what is today Monitor Township. The water placed extreme weight and pressure on the organic material, producing heat and chemical change. As the lake dried, large limestone, shale, and sandstone composites remained. During the last ice age, glacial drifts deposited unconsolidated gravel, clay and sand particles over the bedrock of the Bay County area. The receding glaciers formed the Great Lakes and the Saginaw River system.

Soils

The major soil association found in Monitor Township is the Londo-Tappan Association characterized as nearly level, somewhat poorly drained and poorly drained soils that formed in loamy material. This soil association commonly forms on till plains modified by lake water. About 21 percent of Bay County and about 70 percent of Monitor Township contain Londo-Tappan soils. This soil type has a tendency to hold water and has a seasonal high water table.

The soils in this association are mainly used for cultivated crops. In some areas they are used as woodlands or for pasture. Wetness is the main limitation for most farming and non-farming uses. However, if adequately drained, this soil type has good potential for agricultural uses. The potential for building site development varies on a case-to-case basis depending on the soil mixture. Tappan retains water better than Londo soils and is generally not preferred for development.

Climate

Bay County's latitude, longitude, and proximity to Lake Huron help to create the local climate. The climate is defined as "humid continental". This climatic term simply means moist air masses prevail aloft and greater fluctuations in daily and seasonal temperature are experienced due to the Township's interior continental position. It is characterized by four distinct seasons and a relatively short summer. Summers are influenced by warm moist air masses from the Gulf of Mexico. In winter, cold, dry air masses cross the warmer Great Lakes and pick up moisture. This moisture can fall in the form of rain or "lake effect" snow. Bay County commonly experiences the lake effect phenomenon when winds from the northeast flow over Lake Huron.

These climatic conditions give local agrarians about five months, or approximately 150 frost-free days a year. The Great Lakes provide a moderating effect on local temperatures, preventing early budding in the Spring and extending the growing season in autumn.

The average annual temperature is 47.61 degrees Fahrenheit. In January, the average daily temperature dips down to 22.4 degrees F. In July the average daily temperature climbs to 71.5 degrees F. Average annual rainfall is 32.4 inches of which 19.95 inches, or 61 percent, usually falls between April and September, which is the growing season for most plants.

Drainage and Water Resources

The Township's natural drainage is poor because of a combination of the area's flat topography and poorly drained soils. Tributary county drains of the Squaconning Creek flow through Monitor Township and the water ultimately reaches the Saginaw River. The Kawkawlin River flows through the northern part of the Township and eventually flows into Saginaw Bay.

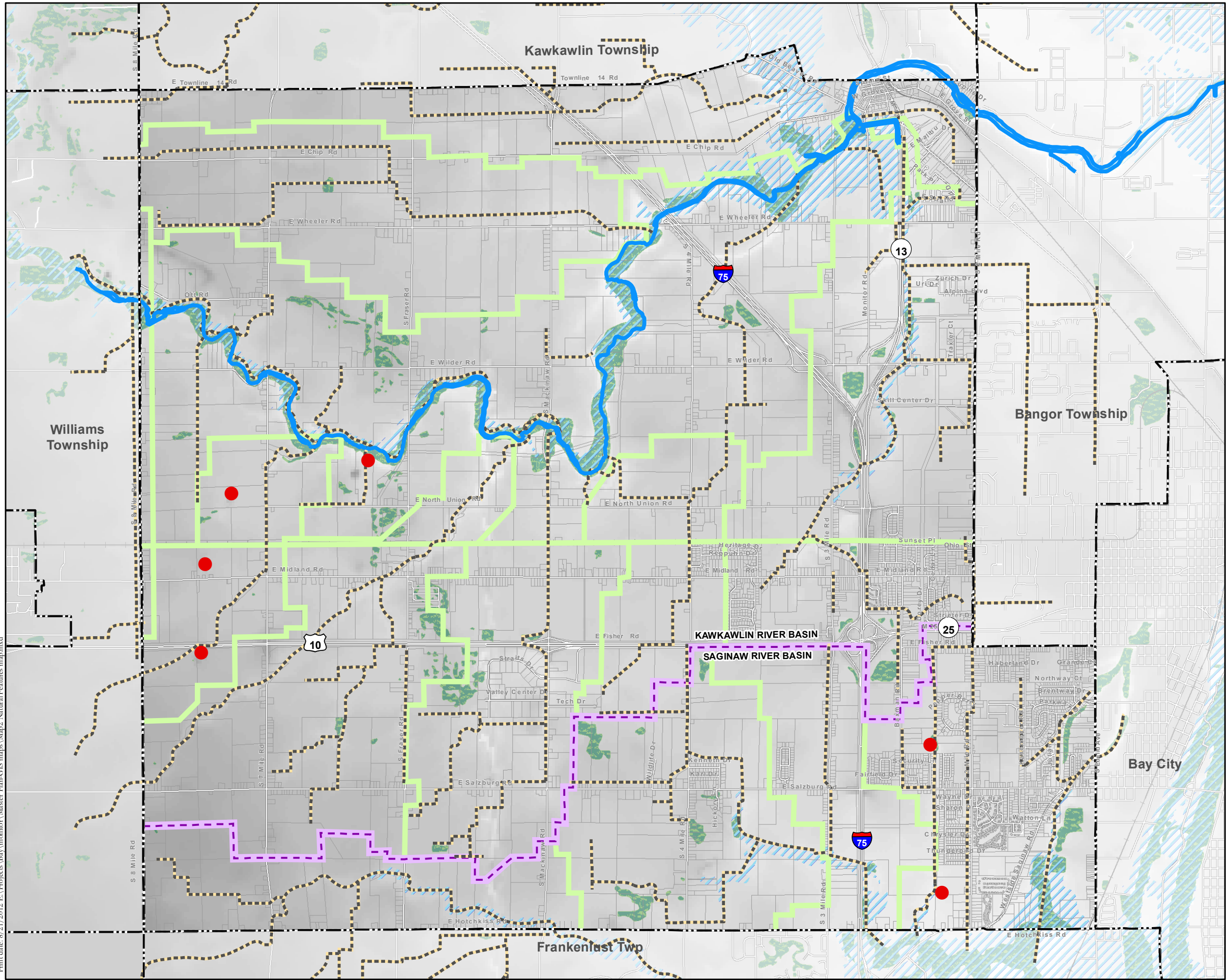
The southern part of the County is partially in a river valley and was once a lake bottom. Swamps are ubiquitously found in the low lands near the river. These swamps extend into the southeastern portion of Monitor Township.

Vegetation

As an agricultural community, much of the natural woodlands have been cleared for farming. Several small lot woodland areas remain, especially in wetlands and riparian corridors. Common hardwood trees in the area include: northern red oak, black oak, red maple, American basswood, and white ash. Coniferous or cone bearing trees include the white spruce, eastern white pine, and black spruce.

Water loving plants proliferate in the Township's wetland environments. These are annual and perennial herbaceous plants that normally grow in wet or damp soils. Rushes, sedges, reeds, and duckweed are common wetland plants.

Print date: 8/21/2012 E:\Projects\Bay\monitor\Master Plan\GIS maps\Map2 Natural Features map.mxd



Map 2 Natural Features

Charter Township of Monitor
Bay County, Michigan

July 8, 2013

LEGEND

- Kawkawlin River
- Mine Dump
- County Drain
- Basin Divide
- Sub Basin Drainage Divide
- Municipal Boundary
- Flood Hazard Area
- Wetlands

0 4,000 8,000 FEET



Base Map Source: Bay County GIS, 2006, Michigan Geographic Framework, Michigan Center for Geographic Information, Version 12a.

Social Characteristics

Population Trends and Projections

Monitor Charter Township has experienced moderate population growth with 1,896 residents in 1930 to 10,735 residents in 2010, an increase of 1,223 (or 12.9%) over the 1990 figure. Monitor Charter Township is growing at a faster rate than the surrounding communities.

Table 1: Population Trends of Selected Municipalities, 1990 to 2010 Bay County, Michigan

	1990	2000	2010	1990 - 2000 Percentage Change	1990 - 2010 Percentage Change
Monitor Township	9,512	10,037	10,735	5.5%	12.9%
Bangor Township	16,028	15,547	14,641	-3.0%	-8.7%
Bay City	38,936	36,817	34,932	-5.4%	-10.3%
Hampton Township	9,520	9,902	9,652	4.0%	1.4%
Williams Township	4,278	4,492	4,772	5.0%	11.5%
Kawkawlin Township	4,852	5,104	4,848	5.2%	-0.1%
Bay County	111,723	110,157	107,771	-1.4%	-3.5%

Source: 1990, 2000 & 2010 U.S. Census of Population

The Township's population is primarily concentrated in the southeast section next to Bay City. A small concentration of people are located in Kawkawlin, an unincorporated village in northeastern Monitor Township. Most of the recent growth has taken place in the more remote areas along I-75 and US-10, with the majority of development occurring near around the interchanges. Many sections remain relatively undeveloped due to physically limiting factors, such as poorly drained soils and the high water table.

Table 2 compares the characteristics of the households in Monitor Township with nearby selected municipalities. According to the 2010 Census, there was an average of 2.38 persons per household in Monitor Charter Township.

Table 2: Households in Selected Municipalities, 2010 - Bay County, Michigan

	All Households	Persons/ Households
Monitor Township	4,443	2.38
Bangor Township	6,308	2.29
Bay City	14,436	2.38
Hampton Township	4,205	2.22
Williams Township	1,820	2.62
Kawkawlin Township	1,922	2.49

Source: 2010 U.S. Census of Population

Age Structure

The Township's median age is slightly older than the rest of the County. The 2010 Census shows that the median age of Township residents was 46.9 years old, while Bay County residents were slightly younger at 41.7 years old.

In 2000, the largest segment of the population was in the 18 to 44 year old category, known as the "family forming" years. In 2010, the largest segment of the population is in the 45 to 64 year old category, known as the "mature family" years. It is assumed these people raised their children or are a few years away from sending their children into adulthood. If there is not affordable housing, tertiary educational opportunities nearby or available employment within the community, it is assumed that the local population further decrease. On the other hand, 2,363 (22.0%) people are 65 years or older and 2,921 (27.2%) are 18 to 44-year old (see Table 3). Almost 53 percent of Monitor Township's total population is either mature or of retirement age. Age structures have important planning implications in terms of meeting the needs of Township families and aging residents.

Table 3: 2010 Population Age Structure for Monitor Township and Bay County, Michigan

Age Group	Life Phase	Monitor Population	Monitor Percent	Bay County Population	Bay County Percent
Under 5	Pre-School	482	4.5%	6,231	5.8%
17-May	Elementary & Secondary	1,657	15.4%	17,721	16.4%
18 - 44	Family Forming	2,921	27.2%	34,541	32.1%
45 - 64	Mature Families	3,312	30.9%	31,771	29.5%
65 and over	Retirement	2,363	22.0%	17,507	16.2%
Total		10,735	100.0%	107,771	100.0%

Source: 2010 U.S. Census of Population

Racial and Ethnic Composition

The 2010 Census reported that out of the Township's 10,735 residents, 10,419 or 97.1% of the population identified as white. Minority residents collectively make up the additional 2.9% of the Township's population. The percentage of minorities shows an increase from 2.2% in 2000, indicating an increase in diversity. This composition is relatively consistent throughout Bay County.

Education

According to the 2006-2010 American Community Survey (a constantly updated demographic product provided by the Census), 90.5% of Monitor Township residents 25 years and older have earned a high school diploma or equivalent. Additionally, 25.1% have earned a bachelor's degree. By comparison, 87.4% of Bay County residents 25 years and older earned a high school

diploma, and 18.0% have earned a bachelor's degree. Educational attainment data from the 2000 Census indicates that both Monitor Township and Bay County are seeing larger shares of the population becoming high school and college graduates. Monitor Charter Township's level of educational attainment is generally consistent with the higher percentage of the population with white-collar occupations.

Disabled Population

Some Township residents have mobility or self-care limitations as defined by the U.S. Census. The most recent and accurate data for the disabled population within the Township was last collected by the Census in 2000. In 2000, 18.5% of Monitor Township non-institutionalized residents age 21 to 64 reported a disability. Without Township-level data, it is difficult to make a reasonable comparison. Nevertheless, in 2010 the American Community Survey estimated that 15.2% of Bay County's civilian non-institutionalized population had a disability. Of County residents age 18 to 64, 13.3% reported a disability. Of residents 65 years and older, 37.6% had a disability. This data is significant because the 18- and 21-64 year old age category represents the Township's workforce. The needs of this segment of the population should be considered when plans are made for both public and private facilities. Recreation Planning should take particular attention to the disabled to stay in compliance with Title II of the Americans with Disabilities Act (ADA). This act prohibits both intentional and unintentional discrimination against all individuals with disabilities in all programs, activities, and services provided by public entities.

Findings, Conclusions, and Implications

The Township's population tends to be relatively older, better educated and faster growing than the County as a whole. With over 5,675 residents past the prime family-forming years, the Township should consider recreation, housing and service programs for a mature population. Senior citizen housing could be provided at an appropriate location in the community with good access to shopping, medical facilities and recreational opportunities. Providing affordable and accessible housing and supportive services for seniors will become increasingly important as more residents demand the ability to "age in place," or the capacity for seniors to live in their own community safely, independently and comfortably regardless of age, income, or ability level is one strategy.

Economic Analysis

Introduction

One purpose of the Master Plan is to identify employment, shopping, and income-producing ventures for residents. In addition, the Master Plan should identify the type and amount of economic growth the Township is interested in achieving. To accomplish this, it is necessary to become knowledgeable of the Township's economic characteristics. Equally important, a thorough understanding of business and industrial development patterns in and around the community must be understood.

This section will provide information relative to Monitor Township's economic base. Income and employment characteristics of the residents and the composition of the labor force will be examined. In addition, the State Equalized Value (SEV) growth analysis is used as an economic growth indicator.

Employment Type

Table 4 illustrates and compares the Township's employment types or availability with Bay County and the State. Many similarities exist among all three jurisdictions. However, a few noticeable differences exist. Monitor Township's employment has a lower percentage in construction jobs than the County or the State. Also, the Township's residents have more jobs in the educational, health, and social services category and the manufacturing category than the other two jurisdictions. Relative to the State, the Township has fewer jobs in the agricultural and Arts, entertainment, and recreation, and accommodation and food services category. Fewer available jobs in a couple of these categories can be explained by the Township's rural character.

Township residents enjoy a lower than average unemployment rate. In order to illustrate a comparison, 2006-2010 American Community Survey data indicates that Monitor Township's unemployment rate of 6.2% was below the Michigan's rate of over 11.5%. Monitor's rate compares favorably with Bay County's rate of 9.5%. However the most up to date data, which covers Bay County during February 2012, indicated an unemployment rate of 9.3%. During the same time period, Michigan's unemployment rate was 9.4%.

Table 4: Employment by Industry

Subject	Michigan	Bay County	Monitor Township
Agriculture, forestry, fishing and hunting, and mining	1.3%	1.2%	0.8%
Construction	5.3%	5.6%	3.5%
Manufacturing	17.6%	15.5%	18.8%
Wholesale trade	2.8%	2.8%	2.1%
Retail trade	11.6%	14.1%	15.4%
Transportation and warehousing, and utilities	4.2%	5.0%	6.3%
Information	1.9%	1.8%	1.8%
Finance and insurance, and real estate and rental and leasing	5.7%	4.7%	6.4%
Professional, scientific, and management, and administrative and waste management services	8.9%	6.7%	6.3%
Educational services, and health care and social assistance	23.2%	25.6%	27.4%
Arts, entertainment, and recreation, and accommodation and food services	9.1%	8.7%	5.3%
Other services, except public administration	4.7%	4.9%	3.2%
Public administration	3.8%	3.6%	2.6%

Source: 2006-2010 American Community Survey

Employment Trends

A comparison of 1980 through 2010 census data revealed that the area is experiencing changes in the employment base. Laborer and unskilled jobs have decreased while managerial, professional and services jobs have simultaneously increased. More than half the area population is employed in managerial, professional, sales and office capacities. This shift in the occupational status of Township residents can be attributed to an increase in residents with post-secondary education and increased agricultural efficiency. Data would indicate that the Township is a residential destination for those people employed in white collar jobs.

Table 5: Occupational Status – Monitor Township, Bay County and Michigan

Occupation	Michigan	Bay County	Monitor Township
Management, business, science, and arts occupations	33.60%	28.50%	34.90%
Service Occupations	18.00%	20.60%	16.20%
Sales and office occupations	25.10%	25.90%	27.30%
Natural resources, construction, and maintenance occupations	8.30%	9.40%	6.20%
Production, transportation, and material moving occupations	15.10%	15.60%	15.40%

Source: 2006-2010 American Community Survey

Income

Monitor Township's median household income (in 2010 dollars) compares favorably with that of Bay County and Michigan. The Township median household income was \$53,064, which is \$8,405 more than the County and \$4,429 more than the State. This \$53,064 figure represents a 6% increase from the \$50,106 median reported in 2000 (in 1999 dollars). However, this increase in income is shadowed by inflation which when \$50,106 is adjusted for inflation becomes \$65,582 in 2010 dollars. While this figure might be alarming on a local level, this decrease in buying power has been common in a regional and state economy that is emerging from a decade long recession. After comparing income figures across the county, Monitor remains a destination for middle and upper class Bay County residents.

Property Value

A review of the Taxable Value in the Township reveals an impressive growth in values for the first half of the 2000s. The Taxable Value is established by assessors for tax purposes, and is the value to which the millage rate is applied. Table 6 shows real and personal property taxable value growth for Monitor Township and Bay County from 1999 to 2012. Both the Township and Bay County's SEV grew at impressive rates until 2007, when taxable value began declining due to decreases in property value. The average increase for Monitor Township over this period was 3.11% whereas Bay County was less at 1.73%. The last column in the Table 6 demonstrates how Monitor's total taxable value stands as a percentage of Bay County's total taxable value.

Table 6: Taxable Value Growth (Real and Personal Property)

	Monitor Taxable Value	Monitor % Change From Previous Year	Bay County Taxable Value	Bay County % Change From Previous Year	Monitor's Taxable Value as a % of Bay County
2002	\$267,122,470	-	\$2,454,709,857	-	10.88%
2003	\$282,952,006	5.93%	\$2,538,025,956	3.39%	11.15%
2004	\$302,663,638	6.97%	\$2,651,998,662	4.49%	11.41%
2005	\$317,586,629	4.93%	\$2,760,352,934	4.09%	11.51%
2006	\$337,636,281	6.31%	\$2,885,863,806	4.55%	11.70%
2007	\$358,932,404	6.31%	\$3,014,158,443	4.45%	11.91%
2008	\$358,070,619	-0.24%	\$3,065,311,658	1.70%	11.68%
2009	\$366,484,491	2.35%	\$3,105,175,515	1.30%	11.80%
2010	\$356,680,193	-2.68%	\$2,958,617,497	-4.72%	12.06%
2011	\$357,970,459	0.36%	\$2,916,647,488	-1.42%	12.27%
2012	\$361,041,410	0.86%	\$2,901,967,896	-0.50%	12.44%
Average (02-12)	333,376,418	3.11%	2,841,166,337	1.73%	11.71%

Source: Bay County Equalization Department

Taxable value is a good indicator of Township property tax revenue, as tax revenues are dependent upon taxable value. As can be seen in the table above, taxable began to decrease in 2008 by 1-3% due to decreasing property values. Since, 2011, SEV, has increased by less than 1 percent annually.

During the spring of 2012 when portions of the Master Plan were written, there was extensive discussion of eliminating the Michigan Personal Property Tax, which is levied by local governments and school districts and other local taxing authorities on industrial and commercial tangible property such as computers, office equipment and industrial machinery. With a Personal Property taxable value of \$35,707,338, or 9.9% of total Township taxable value, elimination of the personal property tax without replacement revenue could decrease township revenues and decrease the ability to continue or expand services to residents. The Township would be wise to follow developments on this issue.

Findings, Conclusions and Implications

The indicators demonstrate that after three years of declining SEV, Monitor Township is witnessing slow general increase in economic health. Household incomes are generally higher than other areas in the County. For the time being, lower property values can increase the supply of eligible buyers and renters within the Township, increasing its desirability as an affordable location to settle with easy commute times to Bay City, Midland and Saginaw.

Given the again increasing strength of the local economy and land values, it may be assumed that current land use policies are received favorably in the private sector. The Monitor Township Planning Commission and Township Board should recognize the overall strength of those indicators and create policies that will be reinforce and strengthen private investor confidence and commitment in the community. National trends and residential demand are causing local governments to look at ways to make communities more walkable and friendly to residents of all ages. Housing units that are within walking distance and are connected by sidewalks to shopping, services and leisure activities will be the most desirable over the coming decades

Housing Analysis

Housing Type

The preponderance of Monitor Township residents live in single family detached housing units. Mobile home units make up a significant percentage of the total housing stock, estimated at 14.9 percent (2006-2010 ACS). Multiple family housing (structures with at least one attached single family housing unit and apartment style units) is limited in the Township and makes up only 9.5 percent of the housing stock. Table 7 shows that 4,101 out of the 4,648 housing units, or about 88% of housing units within Monitor Township are owner-occupied. By comparison, owner-occupied units account for 34,685 out of 48,220 homes, or 71.9% of the units in Bay County. Monitor also has a very low percentage of vacant housing at 4.4% when compared with the rest of the County.

Table 7: Housing Occupancy in Monitor Township and Bay County, 2010

Type of Housing Unit	Monitor Township	Bay County
Total Housing Units	4,648	48,220
Owner-Occupied		
Number	4,101	34,685
Percent of Total Housing Units	88.2%	71.9%
Renter Occupied		
Number	342	9,918
Percent of Total Housing Units	7.4%	20.6%
Vacant Units		
Number	205	3,617
Percent of Total Housing Units	4.4%	7.5%
Mean Household Size	2.38	2.38

Source: 2010 U.S. Census of Population

Age of Housing

The condition of housing in a community is, in part, related to its age. Traditionally, the need for major repairs or rehabilitation becomes evident when housing stocks reach an age of 30 or more years. Communities with a substantial proportion of their housing stock at 30 or more years often initiate programs to encourage reinvestment.

The median year housing structures were built in Monitor Township was 1973. Overall, Monitor Township's housing stock is relatively new with 55.0 percent built after 1970. In comparison, The Township's housing is newer than the County and Michigan's, with 47.7 percent of the State's housing being built after 1970 and 37.6 percent for Bay County.

The percentages in Table 8 indicate that the larger Townships within Bay County have a large percentage of homes that were built between 1950 and 1980 as suburban growth extended into traditionally rural townships surrounding Bay City, which experienced most of its growth before 1950.

Residential growth since 2005 has decreased due to construction industry slowdowns and population decline due to employment shifts. With a decreased rate of housing construction, the median age of housing structures will continue to increase. Reinvestment in the housing stock will come in the form of land use planning and home rehabilitation from homes in the neighborhoods in Monitor Township.

Table 8: Age of Housing in Selected Municipalities, 1939 to 2010 - Bay County Communities & Michigan

Year Structure Built	Monitor Township	Bangor Township	Bay City	Hampton Township	Williams Township	Kawkawlin Township	Bay County	Michigan
2005 or Later	3.9%	3.4%	0.3%	1.4%	1.3%	1.8%	1.8%	2.2%
2000 to 2004	12.0%	2.4%	0.9%	5.3%	17.0%	6.8%	5.4%	7.1%
1990 to 1999	12.0%	9.0%	2.6%	9.9%	10.1%	13.5%	7.6%	12.8%
1980 to 1989	8.5%	6.0%	3.4%	8.7%	9.2%	4.7%	6.3%	9.9%
1970 to 1979	18.6%	17.7%	7.6%	35.2%	14.5%	21.4%	16.5%	15.7%
1960 to 1969	16.6%	19.1%	7.5%	15.6%	13.8%	11.9%	11.9%	12.1%
1950 to 1959	15.7%	20.6%	15.6%	12.5%	14.8%	15.1%	16.5%	15.5%
1940 to 1949	5.4%	11.4%	10.7%	5.2%	6.9%	12.1%	9.3%	8.6%
1939 or Earlier	7.3%	10.4%	51.4%	6.3%	12.3%	12.8%	24.7%	16.1%

Source: 2006-2010 American Community Survey

Housing Value and Contract Rent

Housing values and contract rent are good indicators of housing demand and affordability. Census data is useful for comparing housing values in Monitor Township with other communities.

Housing in Monitor Township is valued slightly higher in comparison to surrounding communities. As stated in Table 9, the average value of an owner occupied home is \$138,800. Hampton Township is the next highest with a median value of \$134,600. Analysis of median contract rent reveals a slightly different trend, with Monitor Township having a relatively low rental rate, and Williams Township having a high rental rate (\$300 higher than Monitor Township.) However, given that these figures are based on 5-year estimates, the rental amounts should be used only as a rough comparison.

Table 9: Median Housing Values & Median Rent Cost

	Owner-Occupied Median Housing Value	Median Contract Rent
Monitor Township	\$138,600	\$531
Hampton Township	\$134,600	\$542
Williams Township	\$129,200	\$825
Bangor Township	\$120,900	\$592
Bay County	\$107,800	\$556

Source: 2006-2010 American Community Survey

Findings, Conclusions, and Implications

The Township's housing stock is generally indicated to be in good condition. The Township has a relatively small supply of apartments available. The land use plan can provide for additional multiple family and senior housing in order to create accommodations for some of the "empty nesters" and young people in the community. Single-family housing is also popular in the Township. Substantial additional land should be available for development of residential zones that permit single-family homes, multi-family and senior housing within close proximity to workplaces, amenities and transportation corridors.

Culture and Leisure Activities

Culture and Leisure Activities

Monitor Township residents are within a half hour drive to many regional cultural and recreational amenities. Parks, museums, and historical sites abound in the Bay region, providing Township residents numerous cultural activities. This includes the performing arts which can be experienced at one of many nearby music and theater locations. Area residents also have access to outdoor recreational and open space areas. Hiking, biking, and swimming opportunities exist in the local, regional, and state park systems. The Bay County area proudly maintains its status as one of the best sports-fishing locations in the country. Much of the local culture is entrenched in Monitor Township's rich and long history dating back over 150 years. However, present day and future residents have a tremendous opportunity to take part in the region's cultural heritage.

The Performing Arts

Bay City is home to the country's oldest continuously operating community theater. The Bay City Players present an assortment of theatrical performances including musicals, comedies, mysteries and dramas. Five productions are performed each year for the public. The Bay City Players also sponsors Youtheatre, a program in which students are able to learn about theater productions by presenting one act plays. Youtheatre typically produces about 8 shows. A typical show has 3-6 student directors and about 20 student actors drawn from schools in Bay City and the surrounding area.

The 70-member Saginaw Bay Symphony Orchestra performs a variety of music types including classical, pop and special event concerts throughout the year. Their typical season runs from September through May with individual ticket prices ranging from \$11 to \$60. Over the past seven year, the SBSO has been able to increase ticket sales and endowment funds

The Saginaw Choral Society (SCS) is a 100 member, auditioned, volunteer performance group which annually presents a season of classical, contemporary and popular concerts for the community. The chorus has earned much critical acclaim, has garnered local, state and national awards and honors, and has built a substantial regional following.

For the past three decades, the arts organization has presented an annual Saginaw Choral Society Christmas Concert featuring a myriad of internationally acclaimed artists, including Andy Williams, Tony Bennett, Doc Severinsen, Rosemary Clooney, Sandi Patty, Michael Feinstein, Kathy Mattea, Burt Bacharach, The Canadian Brass, Lee Greenwood, and Brian d'Arcy James. The Choral Society has also appeared with the indomitable William Warfield, the Boys Choir of Harlem, Dave Brubeck, Dr. Robert Page, Brazeal Dennard, and Bay City's own Kevin Cole.

By providing mentoring opportunities, in-school performances, and concert ticket incentives, the Choral Society advances vocal art appreciation and nurtures young talent. The Choral Society awards scholarships for summer music study at Interlochen Music Camp and the Joanne E. Robertson Scholarship to a graduating high school senior who plans to continue music studies in college.

The Midland Performing Arts Society, formerly Midland Community Concert Society, has been bringing nationally and internationally acclaimed performers to Midland each year since 1947. Concerts are held at the main hall at the Midland Center for the Arts. Tickets are sold to annual members, but individual tickets are sold as extra seats become available. There are currently 1,200 members in the Society. Four to five concerts are scheduled each season. Township residents can watch or participate in a theatrical production in any one of the regional theaters.

The Midland Theater Guild, which performs at the Midland Center for the Arts, is Midland's oldest theater organization. The Guild presents a main season of five plays, a children's theater season, a summer workshop for teenagers, and a continuing program of community service, school residencies, theater classes and workshop. The Cass River Players in Frankenmuth perform two dramas and one musical show each year at Fischer Hall. The Pit and Balcony Theater in Saginaw host a community theater group which performs five to six shows each season featuring comedies, dramas and musicals. The Saginaw Valley State University Theater presents a variety of theater productions throughout the year.

Museums

Sculptures, paintings and drawings can be seen at two art museums in Saginaw and one art gallery in Bay City. The Marshall M. Fredericks Sculpture Museum at the Arbury Fine Arts Center at Saginaw Valley State University houses more than 200 works by the famous sculptor Marshall Fredericks. Located in the historic Ring Mansion, the Saginaw Art Museum has a permanent collection of traditional and contemporary art pieces. The museum also displays temporary, thematic exhibits throughout the year. Studio 23/The Arts Center is located in Downtown Bay in Jennison Place adjacent to Wenonah Park. Here, local artist display their works for public view and purchase. The gallery holds multiple cultural and various medium exhibits like The East Asian Art Exhibit and Native American Art Exhibit, digital photography, traditional black & white photography, painting, sculpture, printmaking, and a variety of other mediums.

History can be revisited in one on the region's numerous historical museums. The Trombley Center House and Kiwanis' Meyer Cabin in Veterans' Park include Bay County items of interest. Early Saginaw County artifacts are displayed at the Castle Museum of Saginaw County History that date back from 1840 to 1900. Exhibits include clothing, a trading post, displays of early retail stores and a model village depicting Native American life.

The Historical Museum of Bay County is the birthplace of the Bull Moose Party and the former home of a National Guard armory. This museum contains permanent and temporary exhibits. Native American heritage, important industries to Bay County's economy, and the struggles of pioneering women are the themes expressed in this museum's exhibits. The Frankenmuth Historical Museum depicts Frankenmuth's Indian mission days and early village life through tape recordings, hands-on displays and environmental settings.

Michigan's Own Military and Space Museum in Frankenmuth pays tribute to the Michigan men and woman who have served their country in the armed forces. The exhibits illustrate acts of heroism and bravery including Medal of Honor recipients, astronauts and the WW I Polar Bears. The Polar Bears were the only American Soldiers to ever fight Communist Russian troops. The Saginaw Railway Museum contains many sites for train enthusiasts. Historic locomotives, cabooses, passenger and freight cars, as well as rail road equipment are on display at this original train depot.

Historical Sites

Bay City's historic districts and neighborhoods are accessible by foot, car or trolley. Visitors to these areas will witness early American residential and commercial architectural styles dating back to 1830. Another historical district in Bay City contains historic and preserved mansions built by lumber barons and ship building entrepreneurs. Frankenmuth, known as "Little Bavaria", includes bakeries, breweries, wineries, woolen mills, German restaurants and pretzel, cheese and sausage factories. The City hosts more than a dozen music, art and folk festivals annually. City tours are available by trams and horse drawn carriages year-round.

Lumbering employed more workers in the United States than any other industry in the 1860s. The Bay area led the country with the largest saw mill in the world located on the banks of the Saginaw River, across from the town of Bay City. As Bay City's prominence as the "Lumber Capital of the World" unfolded, many great buildings were constructed. Hundreds of examples of fine architecture can be seen throughout the city to this day.

The Center Avenue Historic District has over 250 structures on the National Historic Register. Many of these homes were built in the late 1800s including the magnificent mansions built by lumber barons and shipping moguls. At the height of the lumbering industry, downtown Bay City proliferated with hotels, bars, banks and jewelry stores. Fine architecture was also incorporated in the area's early commerce center. Today, these buildings can be visited at Bay City's "Early American" Downtown shopping district and the historic Midland Street entertainment district. These areas contain turn-of-the-century brick buildings which currently house eateries, pubs and small shops.

Outdoor Attractions

Due to the Township's proximity to Saginaw and Bay City, numerous recreational opportunities exist for area residents. Fishing, swimming, basketball, skating, sledding, baseball, tennis, soccer, and football partially list the available activities at the local and regional parks.

Herbert W. Steih Memorial Park on the Kawkawlin River, is a 1.24 acre park which provides local residents with open space, fishing access and a canoe launch site.

The Township also operates a Monitor Township Park on the east side of Three Mile Road between Midland and North Union. The 21.25 acre park provides residents with a pavilion, grills, picnic tables, barrier-free restrooms, walking path, exercise stations, playground equipment, spaces to play volleyball, softball diamonds (two regulation size and two small), horseshoes, soccer and football. The park is open May through September, 8:00 A.M. to sunset. Also within the Township exists the Valley Center Industrial Park Trail, which is popular with Industrial Park employees and visitors. In 2010, Monitor Township Park received a Land and Water Conservation Fund matching grant to install the walking path, exercise stations and upgraded barrier-free restroom facilities.

More than a dozen other parks exist in Bay City alone. The most popular Bay City park is Veterans' Memorial on John F. Kennedy Drive. Attractions and amenities include an 1860s log cabin, the Kantzler Arboretum and the Trombley House. Saginaw City Parks also contain numerous amenities including the Green Point Environmental Learning Center, Anderson Enrichment Center and the Japanese Cultural Center and Tea House. More than 30 private and public golf courses are located within an one hour drive of the Township.

Local, state and national parks offer additional recreational opportunities such as observing wildlife and hiking. Migratory birds and other wildlife can be observed at Shiawassee National Wildlife Refuge in Saginaw. Wildlife can be spotted along the refuge's trails which are equipped with two observation platforms with spotting scopes. The trails are open to hikers and bicyclist. Just five miles east of the I-75 Beaver Road exit, Bay City State Recreation Area is perhaps the most accessible multi-use park to Township residents. Bay City State Recreation Area overlooks more than 4,000 feet of Saginaw Bay. Five miles of trails, overlook towers, and the new Saginaw Bay Visitor Center interpret the 1800-acre Tobico Marsh, known nationally for its wetland birds and wildlife. A modern 263-site campground with large grassy sites in a stand of mature oaks is open all year. Modern facilities are available from mid-April to November 1. Outdoor activities involve camping, viewing wildlife exhibits, swimming, guided tours, picnicking, hiking, and fishing the Saginaw Bay. The off-season attracts cross-country skiers, snowshoers and winter campers.

Within a twenty minute car ride, Township residents can visit the highly acclaimed Dow Gardens in Midland. This 110 acre site is open seven days a week all year long from 9:00 A.M. to sunset. Visitors must pay a nominal fee to enter. The manicured grounds contain over 1700 varieties of plants. A plaque identifies each and every plant species in the garden. Dow Garden also has seasonal displays such as tulips in the spring, a greenhouse, library and gift shop.

Venues and Civic Arenas

The Bay County Civic Arena has two ice-skating rinks which can accommodate a large number of people at open skate sessions and hockey league games. The Fischer Hall in Frankenmuth was established in 1894 and is the home of the Cass River Players. The Dow Event Center is a multi-purpose complex housing a 7,600 seat arena, the 2,276 seat Theater and the 10,000 square foot convention banquet. Many special events occur here including performances by the Saginaw Spirit professional hockey team, live theatre, concerts, and conventions.

Youth hockey leagues and public skating can be found at the Saginaw Bay Ice Arena. The arena seats approximately 800 people and is open between the months of August and May. Dow Diamond, located in downtown Midland near Buttles, Ellsworth and State streets, is home to the Great Lakes Loons, a Class A affiliate of the Los Angeles Dodgers. The first game was on April 13, 2007 in front of a crowd of 5,450. The stadium is a year round facility and can be rented for private parties and events and is frequently used for community events such as charity walks, conventions and high school baseball games.

Community Attractions/Events

The Delta College Planetarium and Learning Center in Bay City is an 8.5 million dollar facility funded by NASA. This impressive educational facility has a 50 foot domed screen and seats 130 visitors allowing guests to experience the Digistar II projector system. This state-of-the-art system provides audience members a unique blend of education and entertainment. Included in this ultra-modern structure classrooms, a gift shop, an observation deck and a multi-purpose exhibit area with a catering kitchen.

Each Fourth of July, some 200,000 visitors come to watch Bay City's fireworks display, one of the largest in the entire nation. Other Bay City activities including strolling down the Riverwalk, eating at a bay-side restaurant and catching the excitement of professional power boat racing on the Saginaw River.

Kids of all ages can ride a train or a pony at Saginaw Children's Zoo. The Zoo also offers a petting zoo and a hatchery.

Findings and Conclusions

Monitor Township's tranquil rural character and allure attract residents throughout the region. This attraction is evident as more and more families are moving to this centrally located township. Residential housing is now the single most prominent land use feature. The recent slowdown in new construction and financing for construction is causing developers and homebuyers to rethink their decisions. Developers are finding that multifamily housing and rental housing units are easier to finance and more cost effective to develop, and homeowners are looking to rehabilitate and modify their existing home versus moving to a new home. Additionally, residents are looking to buy and rent homes near job centers, highway access and amenities such as shopping and recreation. New development that focuses on these key findings strengthens the local economy and creates jobs and wealth. Township residents will expect to and spend money on leisure and cultural activities that are close nearby. Fortunately, numerous opportunities exist nearby, providing residents with a wide variety of cultural and leisure minded activities to choose from. These activities will remain important in maintaining a high level of community satisfaction. Given the Township's location near shopping, job centers, highways, diverse cultural and leisure activities, area residents are finding Monitor Township a great place to live.

Public Infrastructure

Transportation

Monitor Township is served by a substantial range of transportation lines and amenities. Besides the auto routes and rail lines that run through the Township, residents and businesses also benefit from nearby commercial air service and international waterways. The extent and accessibility to these facilities create development opportunities in many areas of the Township.

Auto Routes

Township roadways are classified differently by the Bay County Road Commission and the Michigan Department of Transportation. The Road Commission places roadways into the following categories: interstate highway, federal highway, state highway, county primary and county local.

Highways. Interstate 75 is the major highway that runs north and south through the Township. Four I-75 exits exist in the Township, at M-25, M-13, US-10 and Wilder Road, connecting the Township to the job center of Saginaw. US-10, a federal highway, runs east and west through the Township south of Midland Road and connects the Township to Midland. There are two US-10 exits in the Township, one at Mackinaw Road and the other at I-75/US-23. State highway M-13 runs through the northeast corner of the Township through Kawkawlin.

County Primary Roads

Ten county primary roads run through the township. The following roads are considered county primaries:

- Hotchkiss Road
- Salzburg Road
- Wheeler Road
- Chip Road (from Mackinaw Road to Old Beaver Road)
- Old Kawkawlin Road
- Wilder Road (from the east Township line to Three Mile Road)
- Seven Mile Road
- Mackinaw Road
- Three Mile Road (from the south Township line to Wilder Road)
- Monitor Road
- Midland Road
- Two Mile Road (north of Midland Road, and from M-84 to Fisher Road)

County Local Roads

- North Union Road
- Wilder Road (from the west township line to Three Mile Road)
- Chip Road (from the west township line to Mackinaw Road)
- Town Line Road
- Beaver Road
- Eight Mile Road
- Fraser Road
- Four Mile Road
- Baxman Road
- Two Mile Road (from the south township line to Midland Road)
- Kasemeyer Road

Roadways are categorized differently by the Michigan Department of Transportation (MDOT). MDOT provides for eight different functional classifications. They are: interstate freeway, other freeway, other principal arterial, urban major arterial, urban minor arterial, urban collector, rural major collector and rural minor collector. This road classification scheme identifies the type and volume of traffic that are appropriate for each segment of the road network. The classifications establish expectations among residents, Township officials, and transportation engineers concerning the operational characteristics of each road.

Following are definitions for urban major arterial, urban minor arterial, urban collector, and rural collectors including major and minor:

Urban Major Arterial. Primary function is to accommodate longer distance travel between communities and expressway interchanges and within the Township. Major arterials are usually state trunk lines and the "mile" roads, typically with posted speed limits of 35-45 miles per hour in urban areas. Wilder Road west of US-23 is an example of a major arterial.

Urban Minor Arterial. Primary function is to move traffic within the community rather than connect to other communities or expressway interchanges. Access to adjacent land uses is another important function so legal speed limits are slower than that of major arterials.

Urban Collector. The main function is to collect traffic from nearby local streets and link it with the surrounding arterial street system. Generally, collectors are not intended for through traffic, but they can serve as a minor arterial when congestion occurs. Speed limits are usually 25-35 miles per hour, and on-street parking may be permitted. Rights-of-way are typically less than arterials but greater than local streets. Monitor Township urban collectors include Three Mile Road south of I-75 and Hotchkiss west of Mackinaw Road.

Rural Collectors. The rural collector routes generally serve intra-county motorists where predominant travel distances are shorter than on arterial routes. Consequently, moderate speeds are typical and allowed.

In order to define more clearly the characteristics of rural collectors, this system is sub-classified according to the following criteria:

Major Collector Roads. These roads are eligible for federal aid and should:

- (1) provide service to any county seat not on an arterial route to the larger towns not directly served by the higher system, and to other traffic generators of equivalent intra county importance, such as consolidated schools, county parks, important mining and agricultural areas and similar uses;
- (2) link these places with nearby larger towns or cities, or with routes of higher classification (arterials); and
- (3) serve as the more important intra-county travel corridors.

Minor Collector Roads. These routes should:

- (1) be spaced at intervals, consistent with population density, to collect traffic from local roads and bring all developed areas within a reasonable distance of a collector road;
- (2) provide service to the remaining smaller communities; and
- (3) link the locally important traffic generators with their rural hinterland.

Planned Road Improvements

According to the Bay County Road Commission (BCRC), a number of road and bridge improvements are planned in the next two years. Though the BCRC maintains a five-year plan for road improvements, they are reluctant to report improvements planned for beyond one year as changes to funding may occur.

Rail Lines

Three rail lines run through Monitor Township. A Central Michigan Railway line runs east and west through the Township just south of North Union Road. Another Central Michigan Railway line traverses the southeast corner of the Township near the Monitor Sugar factory. The third line cuts through the Kawkawlin community on the east side of M-13.

The line that runs east/west through the Township is used to transport, among other cargo, chemicals from the Dow Chemical plants in Midland. The Township has an Emergency Response Plan that provides a plan to handle emergency situations, such as a chemical spill from the rail. Dow Chemical would provide personnel to advise emergency officials if such an incident occurred.

Air Service

Monitor is served by MBS International Airport in Freeland. MBS is located west of the Township boundary south of US-10. In 2008, plans for a new terminal building were revealed. The new terminal, with 75,000 s.f. of space, cost \$48 million to build and was built with no local tax dollars. The terminal is expected be more convenient for passengers, easier to maintain, and more energy efficient and adaptable to future needs. Scheduled commercial service is provided by Delta Airlines (Detroit, Minneapolis St. Paul) United Airlines (Chicago – O’Hare) and Allegiant Air (Orlando-Sanford). Though the airport currently handles no scheduled commercial international flights, a U.S. Customs Office operates at the airport serving private international passenger and cargo flights.

Adjacent Waterways

The international waterway of the Saginaw River is less than one mile away from Monitor Township's borders. The Saginaw River and Saginaw Bay have made shipbuilding a major industry in the Bay area since the late 1800's. These waterways still provide an important shipping alternative to Bay Area businesses including those in Monitor.

Pedestrian Paths, Networks, and Complete Streets

With recent single-family residential development continuing, there has been increased interest in providing sidewalks in more densely-populated portions of the Township. Sidewalks provide safe pathways through neighborhoods for children and other residents. On a larger scale, sidewalks in single-family residential neighborhoods can be linked to pathways along major roadways that may lead to destinations in and around the Township. Places like Monitor Township Park, Michigan DNR Kawkawlin River boat launch, Bay City State Park/Tobico Marsh, Downtown Bay City, and the Bay City Rail Trail and Riverwalk are all destinations that could become accessible to cyclists and pedestrians through a pathway network.

Monitor Township recognizes the importance of street infrastructure and modifications such as sidewalks, crosswalks, shared use paths, and accessible curb ramps, in appropriate locations and consistent with the character of the development, in order to make streets in the Township safe and accessible for all legal and relevant users. Such infrastructure is referred to as “complete streets,” which are designed and operated to enable safe access for pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities. Complete Streets policies direct planners, engineers and community officials to consistently design with all users in mind including drivers, public transportation riders, pedestrians, and bicyclists as well as older people, children, and people with disabilities.

There is no one design prescription for complete streets, as each right of way has unique geographic, political, jurisdictional and travel volume circumstances. Ingredients that may be found on a complete street include: sidewalks, bike lanes (or wide paved shoulders), special bus

lanes, comfortable and accessible public transportation stops, frequent crossing opportunities, median islands, accessible pedestrian signals, curb extensions, and more. A complete street in the more built up portion of the Township will look quite different from a complete street in a more rural portion of the Township, but both are designed to balance safety and convenience for everyone using the road.

Mass Transit

The Bay City Area is served by the Bay Metro Transit Authority. The Authority does provides limited regular service into the northeastern portion of the Township. The Monitor Township Meijer Store serves as an auxiliary commuter parking for Delta College students, employees and visitors. The Bay Metro Transit Authority (BMTA) and Meijer established a Park n' Ride Green Line bus route. The route operates from 7:00am-11:00pm. Hybrid-conversion buses serve the route and operate at 15 minute intervals providing a reliable, environmentally-conscious alternative mode of transportation. The Green Line is a continuous loop from the Meijer store parking lot on Wilder Road within the Township. The partnership resulted in a Meijer funded 30 parking spaces, bike racks, a wait station, and an announcement board to post campus and community events. As the Township develops, consideration should be given to whether transit can be used to reduce traffic, and serve new development in key work/shopping/living nodes.

Utility Systems

Monitor Township enjoys a well-developed infrastructure system in much of the eastern and central parts of the community. The Natural Features Map (Map 2) and Water Service Area Map (Map 3) show the Township's water lines, storm drains, and rivers and creeks. Overall, the water system has been extended from east to west, from Bay City into the interior of the Township.

Each utility system is important to permit the continuing development of the community. Certain alternatives are available with regard to utility system improvements. Those alternatives can be generally summarized as water well and septic versus sanitary sewer and water main systems. Water wells and septic systems generally permit development of low density residential and agricultural uses. More intense development, including denser residential development, commercial and industrial uses, are more readily accommodated and able to develop when supported by municipal sanitary sewer and water systems.

The Township made important decisions many years ago to provide municipal sewer and water facilities in the community to enhance the quality of life for residents. Those enhancements have created opportunities for development of residential subdivisions located with convenient access to places of employment, other developed urban areas and the various transportation links available in the community. The infrastructure improvements have also permitted development of industrial parks in the central part of the Township, just south of the Mackinaw

Road intersection with US-10. Commercial development to serve the needs of the Township's residents was also able to grow, particularly along the major road corridors of Euclid Avenue, Wilder Road and Midland Road. The existing networks of sewers and water mains will play a key role in determining the ability of the community to permit additional development.

Municipal Water System & the Future







Monitor is served by water lines along most major north-south, east-west roads. Map 3, Water Service Area, shows the location and size of all the existing water lines along these major roadways.

Sizes of the lines range from less than 4 inches to 16 inches in diameter. Besides major roads, most of the residential subdivisions on the eastern side of the Township are also served by municipal water. The industrial parks on Mackinaw Road south of US10 make use of large water lines that will permit expansion of the developing industrial base.

Presently Water is purchased from Bay City. Monitor formed a metropolitan water district in conjunction with the adjacent Township of Bangor. There are four water systems that serve the Township; Bangor Monitor Water District, Kawkawlin Metro Service Area, Bay County Water Supply System # 1 and Monitor # 2.

As of fall 2012, the Township is in discussions to purchase water from a source other than Bay City. Due to age and other operational factors, the Bay City Water Treatment Plant is becoming obsolete. Bay City and their water customers are in discussions with Bay County to not only construct a new water treatment facility, but to have water for such a facility come from the Saginaw-Midland Municipal Water Supply Corporation. The Saginaw-Midland Municipal Water Supply Corporation intakes water from Lake Huron at the Whitestone Production Facility, directly north of the City of Au Gres.

Charter Township of Monitor
Bay County, Michigan
July 8, 2013

 Kawkawlin Metro Service Area
 Bangor Monitor Water District
 Bay County Water Supply System # 1
 Monitor # 2
 Municipal Boundary
 Township Area Served*

Base Map Source: Bay County GIS, 2006, Michigan Geographic Framework, Michigan Center for Geographic Information, Version 12a.
 Data Source: Bay County Department of Water & Sewer, 11/2012. Comments from Township Board, 9/2012



Storm Drainage

Storm water in the Township is drained over land by a network of improved drains and natural streams and rivers. The Township is divided into two drainage systems.

Generally, drains in the north and west sections of the Township flow into the Kawkawlin River. Drains such as the Fisher, Hildebrandt and Mill Pond flow into the Kawkawlin River and eventually Lake Huron's Saginaw Bay, north of Bay City.

Drains in the south and east, like the Weiss-Mead, Behmlander and Kasemeyer flow into Squaconning Creek. Squaconning Creek flows into the Saginaw River just below Bay City, which then continues north into Saginaw Bay. The Bay County Drain Commissioner has jurisdiction over storm drains in the Township.

State and federal regulations have significantly altered storm drainage design parameters in recent years. Enforcement of clean water laws has mandated the control of soil and sediment in surface waters. Soil erosion and sedimentation permits are routinely reviewed by the County before construction work in the Township. Additionally, flood control measures have demanded that communities regulate the amount and velocity of storm water entering drainage systems. Storm drainage retention or detention ponds are now a part of most new development, not just in Monitor but throughout the county.

Sanitary Sewer System

Sanitary sewers have been extended to service the urbanized parts of the Township. The sewer system is part of the Bay County system. Sewer mains extend west into Monitor Township. Although the system is primarily based on gravity flow, adequate sewer main depth is not available to maintain the gravity flow in some areas. Those locations are dependent on forcemains.

According to the Township's engineers, substantial capacity remains available in the County system. The engineers expect sewer capacity will permit reasonable growth to occur, consistent with growth trends established in the community.

Community Facilities

In addition to the utility systems, the Township also operates other facilities for the public's use. The Township Hall and Fire Station are located on the northwest corner of Midland and Three Mile Roads. As described in the Culture and Leisure section of this plan, the Township owns and operates Monitor Township Park and a boat launch and fishing access park on the Kawkawlin River. Other governmental entities like the public school systems also own and maintain sites and buildings in the Township.

Existing Land Use

Methodology

An existing land use survey was completed in 1997, updated in 2005 and updated in 2012. This survey utilized field research, aerial photographs, and Planning Commissioner knowledge to establish land uses for all parcels within the Township, and provides the basis for an existing land use analysis.

Eight land use categories were established to categorize the various land uses found throughout the Township. These categories include Mobile Home Park, Private Recreation, Public, Industrial, Commercial, Multiple Family, Single Family, and Agriculture/Open Space. The Existing Land Use Map (Map 4) was created and shows where these land uses are found. Each land use category is described in the discussion that follows.

Land Use Categories

The survey revealed two distinct general land use patterns. The portions of the Township near Bay City have experienced suburban-style single-family residential development as well as strip commercial to serve residents in these homes and residents in Bay City. The remainder of the Township is generally rural and is made up mostly of farmland. There are exceptions, the most significant of which include an industrial park at Mackinaw Road and US-10. The following land use categories were delineated.

Agriculture/Open Space All land under cultivation and lying fallow, wooded areas and wetlands are characterized as agriculture/open space.

Single-Family Lots used for single-family residences that are not in an agricultural area.

Multiple-family Apartments and attached condominiums.

Mobile Home Park. This category describes organized developments that contain movable manufactured housing.

Private Recreation. Includes a private golf course, bowling lanes and similar facilities.

Public. This category denotes public parks, churches, schools, cemeteries and other public property. Public property is generally considered an asset as it provides recreational and cultural opportunities for residents.

Commercial. This category includes all retail sales and service and office land uses. The Township has permitted development of heavy service commercial uses such as tow truck yards and auto repair uses in the commercial districts. This plan recognizes and maintains that overall mix.

Industrial. Light and heavy industries are included in this classification. All types of manufacturing, warehousing and wholesaling fall under this heading. This use type is found mainly in the Township's two industrial parks. Industrial uses are best kept in organized parks to limit negative impacts on other land uses.

Existing Land Use Description

The location and layout of the different categories of land uses provide a basis from which future land use decisions are made. The Existing Land Use Map (Map 4) shows where these land uses can be found on a parcel-by-parcel basis. Following is a discussion of where each of the land use categories are found and a description of the role each plays in the Township today.

Agriculture and Vacant. Agricultural fields account for the majority of land in Monitor Township. Farmlands are west of the Interstate and north and south of US-10. Primarily these properties are characterized by small parcels along the road front that have been split from large portions of farmland remaining in rear yards. Over 20 square miles of land are described as Agriculture or Vacant on the map.

Extensive farmland is under plow in the western half of the community. Although agricultural land is the dominant land use west of the Interstate, a variety of other land use activities have arisen. Many farmers have taken advantage of P.A. 116 contracts. The farmers in the community have demonstrated their continuing commitment to agriculture with the contractual obligations.

Under the current zoning, single family non-farm dwellings may be built. This is cause for concern for those that wish to protect this valuable land. In an effort to protect both the rights of the developer and the valuable farmland, clustering the homes and preserving open space should be encouraged.

Single-Family. Traditionally single family development has followed Bay City's grid pattern design along Euclid Road and west to the Two Mile Road corridor. Newer developments in this area are becoming more suburban in design with curvilinear streets and cul-de-sacs. Slowly, residential developments are popping up in the vicinity of I-75. The land is ideal for residential development, except for the extreme southeast corner of the Township. This area is limited by a high water level from the Saginaw River and Squaconning Creek, as well as wetlands and unbuildable soils.

Multiple-Family. Multiple-family condominium developments include two located among medium density single-family residential and commercial land uses in the Township. Apple Tree Condominium is south of Midland Road and east of I-75. Cortland Farms is east of Two Mile Road and south of Salzburg. Both offer upscale single-family attached residential accommodations with attached garages, attractively landscaped open spaces and a quiet setting for residential accommodations.

Mobile Home Park. There are four areas of mobile home development in Monitor Township; they are located at Two Mile Road between M-13 and Wilder Road, the southeast corner of Midland and Fraser Roads, north of Wheeler Road between South Huron Road and M-13, and east of South Huron Road along East Malibu Drive and East Biscayne Drive.

Public and Private Recreation Uses. Several properties fall into this category. Those include seven churches, three school facilities, a career center, and the Michigan Department of Natural Resources (MDNR) boat launch. Some of these uses, such as school playgrounds and the boat launch, provide recreation for Township residents. Some of these public uses provide a means to preserve open space for all residents to enjoy.

A private golf course is located on Ott Road in the northwest portion of the Township. This use provides a source for recreation and provides preserved open space. Golf courses are also an important residential amenity and can stimulate additional residential development in the community.

Public land is usually the main land use providing recreation in a community. According to the 1994 Parks and Recreation Master Plan, the Township is deficient in providing park space for residents. Excellent access is available to facilities in surrounding communities. This deficiency may be an important consideration when planning the future land use of the Township.

Industrial. Industrial uses are found in various locations around the Township. The preeminent industrial facilities are in the industrial parks found at Mackinaw Road and US-10, and the Monitor Sugar facility on Euclid and Hotchkiss Roads. There are other industrial uses found in other scattered areas of the Township. Smaller industrial areas are found in the northwest corner, and the north central sections of the Township, as well as near Kawkawlin.

Analysis of Land Use Features

As another method of analysis, geographically-based land use features have been analyzed as part of the overall land use analysis. This is to consider the effect other, less-defined features have in the Township. These elements, or features, are discussed below.

Single Family Residential. The Midland Road corridor is home to substantial single family development. Numerous houses dot the road frontage with some limited subdivision development northeast of the Four Mile Road intersection and east of I-75.

Salzburg Road provides access to some of the newest single family homes in the Township. Those modern developments include Harvest View Subdivision and Stratford Woods Site Condominium. Pepper Berry Creek Subdivision is located on Two Mile Road, about 2 mile north of Salzburg and Wildwood Estates Subdivision is also about 2 mile north of Salzburg on the Kasemeyer Road.

The area between Salzburg and Fisher Roads and east of I-75 is an extension of the developed subdivisions in Bay City. The subdivisions are mature with attractively landscaped yards and paved streets.

I-75/US-23. In relation to land use, this interstate serves as a divider between the low density scattered land use pattern to the west and the higher density clustered pattern to the east. The Interstate has facilitated the strong connection between Monitor Township and Bay City by nestling the commercial/service uses and residential neighborhoods together. These two highways also prove attractive to industrial businesses who require good north/south transportation access.

US-10. This route makes easy connecting to Midland and Bay City easy. It is slowly becoming not only a connector route but also a thoroughfare for industrial development. At the Mackinaw Road interchange, two large industrial parks are thriving with hopes of expansion. Along with this type of growth, other service oriented businesses will arise at this interchange. The US-10 and Mackinaw intersection has potential to contribute a great deal to the economic base of the Township.

M-84 and I-75. M-84 curves north from the southern boundary and extends into Bay City in a combined intersection with Salzburg and Euclid Roads. This intersection is the focus of one of the land use conflicts in Monitor. Just to the southeast is the Monitor Sugar Plant while many lots on M-84 are used for single family residences along the route south into Frankenlust. Commercial pressure along this roadway is spreading south from Euclid Road. Industrial and commercial development are replacing older homes. The scattered homes are sometimes found immediately next to sites used or planned for nonresidential purposes.

Industrial Parks. Newly developing and ever-expanding industrial parks are an important focus for this Township. The US-10 interchange at Mackinaw Road has emerged as the primary industrial district; enough to almost overshadow the Monitor Sugar Plant. More development is planned that will encompass an area of over 400 acres. As a result of this type of development, service commercial uses also be needed to service the employees and businesses. Motels, restaurants, office supply stores and other similar uses will be needed to address the needs of the new industrial businesses.

The Township created a Downtown Development Authority in the 1980's to encourage new business development near the approximate geographic center of the Township at the US-10 interchange with Mackinaw Road. The DDA has worked to provide improved industrial development lots. In recent years, the Valley Center Technology Park has been created. The park provides improved lots for industries that need a location with excellent access to all the urban areas of the Tri-Cities, MSB International Airport, and the nearby campuses of Saginaw Valley State University and Delta College. With completion of the first phase of lot development in the park as this plan is prepared, a bright future is expected for growth of technology oriented businesses in the Valley Center Technology Park.

Commercial Corridors. The Township's commercial activity has historically been along Euclid Road and scattered along Midland Road. However, similar to the industrial uses within the Township, there is a push away from older commercial districts to larger vacant parcels in other areas. As a result, a commercial subdivision or commercial park has developed at Two Mile Road and Wilder Road. Uses in this area include Meijer, an office complex and medical center. In this area, many acres are remaining through current zoning and potential rezonings. This area is destined for commercial/office use due to the success of the current projects.

- **Euclid Road.** East of Euclid Road are Bay City and the urbanized part of Bangor Township. Euclid has served as an important binding thread between the communities. Currently, Euclid Road is a street front of commercial uses backing up to residential properties. Both the commercial and residential parcels are shallow lots with little or no buffering that creates a poor interface between uses. The corridor is also characterized by insufficient parking and landscaping. Some recent relocations of businesses along this road to other areas of the Township may be an indicator that Euclid Road is a problem area that requires revitalization.
- **Midland Road.** Midland Road has developed as a mixed use corridor connecting the Township west to east. Among the single family residential properties split from larger farmlands, commercial nodes have developed. The County Drain Commissioner has reported significant storm drainage constraints in the corridor. Although it is possible to resolve the drainage limitations, the solutions are very expensive. Consequently, development in the corridor may be difficult.
- **Wilder Road Corridor.** Wilder Road has seen recent commercial development compliment existing development. Wilder Road is home to the Monitor's Meijer Department Store, Menard's Hardware, Holiday Inn Express Hotel and various eateries and commercial services. Further east outside the Township, the Bay City Mall and many other commercial facilities are developed with Wilder Road frontage.

Wetlands. Squaconning Creek, a tributary of the Saginaw River meanders near Monitor's southern border. Vast wetlands extend from the river, covering some land in the southeastern portion of the Township. These have created constraints to construction in this area and have limited development to low density single family uses.

Kawkawlin Community. The unincorporated village of Kawkawlin is Monitor Township's primary historic neighborhood. Kawkawlin, in the northeast corner of the Township, has a traditional urban layout with high density single family detached residences and a grid street pattern. The Kawkawlin River flows around the community to the west and north. M-13 bisects the community into east and west halves. The area includes many traditional village characteristics such as a commercial downtown area on M-13 that is mixed with residential uses on the downtown periphery.

Kawkawlin River. The Kawkawlin River meanders through the middle and northeast corner of the Township on its way to Saginaw Bay. The river cuts a shallow ravine through the generally flat terrain. The bottom of the ravine is marshy at the lower reaches and becomes better drained farther upstream. The Michigan Department of Natural Resources provides a public access site on Wheeler Road that is popular with people fishing. The river should be enhanced as a visual and recreational resource.

Mines. Coal mines also were common in the Bay City area in the 19th century. The mines created a maze of shafts and tunnels under the Bay County area including Monitor Township. In many locations the closed mines are filled with sulfurous water. This water has made finding potable well sites in some locations difficult and costly. The existence of these flooded wells can make the development of residences in some areas costly due to the lack of fresh water. A public water system is generally in order to permit development in much of the community.

Findings, Conclusions, & Implications

Monitor Township's land use is characterized by human features including residential outgrowth from Bay City, I-75/US-23, US-10. It is also characterized by natural features such as the Kawkawlin River, the wetlands of Squaconning Creek, the forests and the fields. These features will continue to significantly influence land utilization in the Township. Though there is not a great deal of population growth predicted for the Township, though growth in the form of land development will continue even without corresponding population growth. After the economic recession in 2008, land use patterns and market preferences have shifted to consuming land at a slower rate. Existing commercial nodes/corridors will increasingly see developers wanting to density and redevelop commercial land. This growth will depend on existing land features and public utilities that must be provided by the Township and other public entities.

The Township has many strengths to provide a basis for future growth. Existing development has primarily occurred as an extension of Bay City. However, Monitor's independent strengths are becoming more evident:

- The Township has worked very hard in conjunction with the Monitor Downtown Development Authority to create a vibrant industrial center at the intersection of Mackinaw Road and US-10. That work is now paying dividends with new industrial facilities under construction in that area along with plans for future expansion.
- Commercial development should continue to be attracted to the burgeoning Wilder Road corridor with excellent access to the interstate highway system. Until utility improvements are provided west of I-75 the development of the western part of the Wilder Road corridor will be delayed.

- Midland Road is an attractive corridor for continued development. However, because of storm drainage problems with expensive solutions, it is unlikely that development will occur quickly in that vicinity.
- Agriculture has played an important role in the Township's history. The Township's farms are likely to enjoy active production for many years to come, especially if the community's land use policies are responsive to the farmer's needs, especially with the help of PA 116.
- Residential development has been strong in Monitor over the past two decades. As residential building industry rebounds, the Township should expect to see itself as a destination for mature, empty-nest families enjoying the later years in life and a destination for many young families, given its peaceful environment.

Map 4 Existing Land Use

Charter Township of Monitor
Bay County, Michigan

July 8, 2013

LEGEND

Municipal Boundaries

Railroad

EXISTING LAND USE

Agriculture/Vacant

Single Family Residential

Multiple Family Residential

Mobile Home Park Residential

Commercial

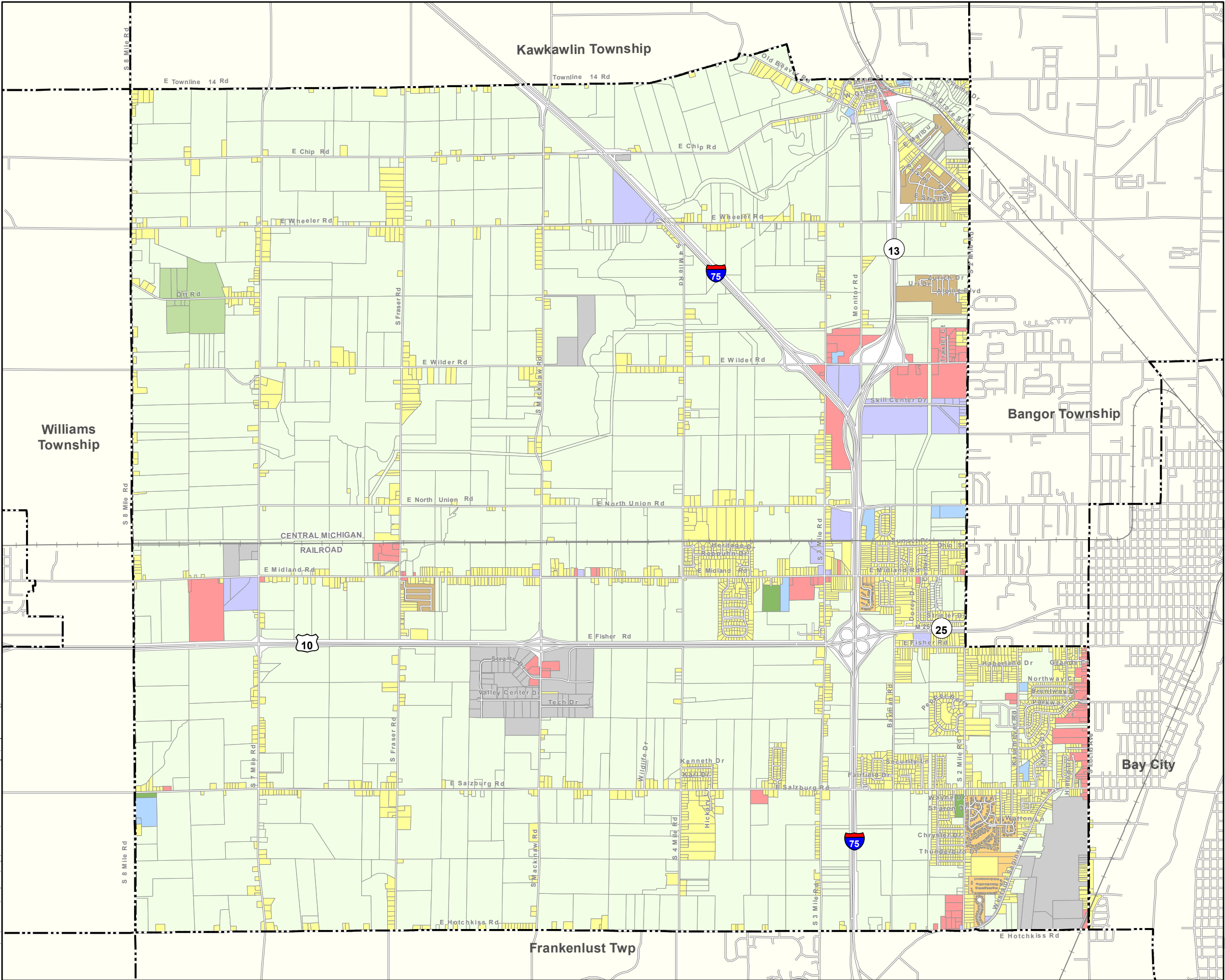
Industrial

Public

Church

School

Private Recreation



Community Visions and Actions

Introduction

A key element in the preparation of the Master Plan is the identification of goals that reflect the community's desires regarding development of the Township. The Township's goals and objectives were developed during 2 visioning workshops in 1998 that were attended by residents, business owners and regional leaders. From these comments, visions and actions were established. These visions and actions were refined into specific goals and objectives that serve as the foundation for the future land use element of the Master Plan. In return, the Master Plan is formulated to provide guidance and direction toward achievement of the Township's visions. The 1998 goals and objectives were confirmed in 2006 by the Planning Commission, residents, business owners and regional leaders during the Master Plan public hearing at the February 7, 2006 Planning Commission meeting. In 2012, the goals and objectives were reviewed by the Planning Commission and some objectives were revised. Many ideas and concerns about the future of Monitor Township were expressed.

Visions statements are restated as goals that are general in nature and, as related to community planning, a statement of ideals toward which the Township wishes to strive. They represent the ultimate purpose of an effort stated in a way that is both broad and immeasurable. These goals also express a consensus of community direction for public and private agencies, groups and individuals.

Actions are the specific objectives identified and are intended to present a method to attain the stated goals. Objectives take the form of more measurable standards, or the general way in which the goals can be attained. Sometimes, the objectives are specific statements that can be readily translated into detailed design proposals, Zoning Ordinance text or other regulations.

The goals and objectives determined through the planning process were recommended to the Township Board for approval at the June 4, 2013 public hearing. Comments from the Planning Commission public hearing are located within the Public Participation section of this plan.

Agricultural Land and Open Space

Prime agricultural lands must be preserved to maintain the rural character of the community. Preservation of farmland is at a crucial crossroad with the new Land Division Act. Many property owners with land that was protected under the Farmland Preservation Act 116 (P.A. of 1974) are leaving the program to take advantage of the lot splits they are allowed under the Land Division Act. An important action is to determine the impact of this activity on the availability of agricultural land and open space. Meanwhile, the Township will promote infill development and development of poor farmland to guide growth away from valuable farmland and rural open space.

Public Act 116 of 1974 was enacted after Michigan was losing farmland at an annual rate of 104,000 acres between the 1940s to 1970s. PA 116 allows landowners to sign a temporary

restriction called a “Farmland Agreement,” which says they agree to keep their land in agricultural use for 10 to 90 years, opposed to allowing it to become developed into other uses, such as single family home subdivisions or commercial centers. In exchange for protecting their land, the landowner is exempt from various special assessments and may receive a tax credit in their Michigan income tax.

Land use decisions could be made in various ways, such as promoting further preservation efforts in portions of the Township that have seen success using PA 116 or promoting it in portions of the Township where soils remain fertile but PA 116 has not been used.

Goal: Use innovative techniques to retain, wherever possible, productive farmland to preserve the rural character of the community while maintaining a healthy employment and tax base.

Objectives:

1. Inventory and identify productive farmland to be preserved.
2. Promote infill development, development of poor farmlands and redevelopment of property to guide growth away from prime farmland and valuable open space.
3. Consider impact of Land Division Act 591 on all recent lands enlisted under the Farmland Preservation Act 116.
4. Identify areas to be retained permanently as productive agricultural lands and promote the Purchase of Development rights by maintaining them under P.A. 116.
5. Discourage piece-by-piece fragmentation of farmland into smaller, less productive parcels by increasing local control of unplatted splits.

Residential

Township residents welcome well-planned, safe, balanced and pleasant residential environments in Monitor. The Plan shall promote clustering neighborhoods and discourage single family lot development along frontage roads. A key concern is planning residential land uses in areas where adequate public facilities and quality roads are available. The Township also wants to maintain an affordable and diverse housing stock to permit residents of all ages to move within the Township.

Goal: To achieve well-planned, safe, balanced and pleasant residential environments.

Objectives:

1. Promote clustered, or planned, neighborhoods in designated areas where adequate public utilities and quality roads are available.
2. Discourage single family residential development along frontage roads.
3. Encourage improved neighborhoods with design guidelines related to existing neighborhood character, lighting, sidewalks, landscaping, and provision of open space.
4. Maintain the safety of neighborhoods for residents by promoting private subdivisions, establishing methods of speed control, requiring better lighting, and installing sidewalks.
5. Develop or redevelop affordable housing for all age groups, particularly including young families and senior citizens to provide a diverse housing stock to permit residents to move within the Township.
6. Encourage well-planned mixed use development incorporating residential and convenience commercial land uses.
7. Preserve and increase the housing stock in the southeast corner of the Township.
8. Develop standards that maximize the utilization of non-conforming lots in the Kawkawlin area and other neighborhoods with non-conforming lots.

Commercial

As the population grows, additional commercial services will be necessary. Regional and convenience commercial facilities will be required to support the residents of the Township. Development of business-related commercial services will also be important to provide support for companies in the industrial parks and other areas of the Township. Commercial service areas must be conveniently located and should be attractive businesses to strengthen the

employment and tax base of the Township while providing visually pleasing facilities that will be attractive to the Township residents.

New commercial development should occur where it will not conflict with surrounding land uses and is serviced by public utilities. Focus areas for new commercial service development should include the entranceway to the Township at Wilder Road on the north and along Mackinaw Road generally near US 10. To improve the aesthetics of these developments, the Plan will encourage design standards for landscaping and green space.

Goal: Plan for attractive, convenient commercial centers that provide services to residents and businesses while strengthening the employment and tax base of the Township.

Objectives:

1. Promote Mackinaw Road as an important strategic position for providing commercial services to the increasing industrial development along Mackinaw and US 10.
2. Continue to retain commercial growth within the area of the Township where it will least conflict with surrounding land use and has adequate sewer and water capacity.
3. Establish design standards for commercial uses that require green space and landscaping as well as improved building design.
4. Consider Kawkawlin as an important entranceway into Monitor from the north with potential commercial identity.
5. Provide necessary services such as medical facilities within the Township for residents and employers as development increases.
6. Encourage planned mixed development of higher density residential and convenience commercial land uses.

Industrial

Industrial development is an important component in the history of Monitor's development. The vision intends to promote the continued growth of industrial use with well-located, attractive and diverse industrial uses while protecting the sensitive relationship with residential and other nonindustrial land uses. This can be accomplished through large sized lots, provisions of green space, and strict enforcement of codes and regulations applicable to industrial areas.

The Township will continue to promote industrial growth along Mackinaw Road and along Seven Mile and Midland Road where thriving industrial enterprise presently exists. To ensure

that negative impacts from heavy industrial manufacturers do not increase, the Township will encourage lighter industrial uses in these areas. Land use “insulation” must be provided around the industrial facilities to reduce conflicts with nearby lower intensity uses.

Goal: Promote well-located, attractive and diverse industrial development while protecting the sensitive relationship between industrial and residential land uses.

Objectives:

1. Locate industrial uses on appropriately large sites to reduce impacts on adjacent properties.
2. Promote strict enforcement of codes and regulations applicable to industrial areas, particularly for industries that create substantial sound and visual impacts and those that may store or utilize hazardous chemicals.
3. Establish design standards for industrial uses and planned industrial parks that to include green space, landscaping and improved building design.
4. Continue to retain industrial growth within the area of the Township where it will least conflict with surrounding land use and has adequate sewer and water capacity; such as along Mackinaw Road, Seven Mile Road and Midland Road.
5. Encourage increased development of light industrial uses while maintaining a strong relationship between existing heavy industrial manufacturers.
6. Maintain the productivity of industrial uses by ensuring the availability of adequate power resources.

Natural Resources and Open Space

Township residents want to increase awareness and protection of the unique and desirable natural amenities of Monitor Township. Development can be guided away from these environmentally sensitive lands, through clustering, density limitations, and setback and site plan design standards. Other methods include incentives for private developers to preserve usable open space for recreation and explore funding opportunities so that the Township may acquire and/or preserve land.

Goal: To protect, preserve, and enhance whenever possible the unique and desirable natural amenities and environmentally sensitive lands of Monitor Township.

Objectives:

1. Inventory and identify valuable view sheds of open space, potential recreational areas and fragile natural features within the Township to be preserved.
2. Cluster development to areas with existing or planned utilities/services and away from environmentally sensitive lands to limit growth patterns and preserve open space.
3. Limit development densities in areas that contain fragile natural features and pristine natural conditions.
4. Develop setback and site plan design standards to protect natural resources and open space.
5. Continue to protect wetlands and floodplain and where possible, restore altered wetland areas to their natural condition.
6. Create open space on individual parcels through greenbelt landscape requirements along major roads and increased setbacks, or buffers, between conflicting uses.
7. Provide incentives for developers to preserve usable open space in new developments and install play areas, walkways, and buffers.
8. Explore funding opportunities for land acquisition and/or preservation of desired natural resources.

Infrastructure

As the community grows, it will become increasingly important to provide and promote the transportation and public utility network necessary to support the current population and to provide future improvements in locations best suited for development to permit managed growth. The Master Plan will be an important tool in planning for these expansions and improvements. High traffic volumes will eventually require access management strategies and selected roadway widening.

The Master Plan will also support limitations on infrastructure development as a growth management tool. Development will be discouraged in areas where valuable open space and environmentally sensitive lands are located. In addition, the Township must work with developers and regional agencies to find creative solutions for drainage problems.

Goal: To provide and promote the transportation and public utility network necessary to support the current population and to provide future improvements in locations best suited for development to support managed growth.

Objectives:

1. Utilize the future land use plan to guide decision making for public utility expansion and future road improvements.
2. Plan for infrastructure development with emphasis on access management and traffic flow to support future and existing growth.
3. Accommodate increases in traffic volumes through continued maintenance to roadways, selected road widening and intersection or traffic signal improvements.
4. Prohibit extension and development of public utilities and infrastructure in areas where the Township desires preservation of open space and environmentally sensitive lands.
5. Plan for increased drainage problems as a result of new development in the Township by establishing storm drainage guidelines and improve system of maintenance for existing system.
6. Explore funding opportunities to develop, install and maintain public utilities, including the looping of the water system.
7. Promote the development of a safe and efficient local road network by requiring the development of public roads in all single family developments.
8. Plan for complete streets, guaranteeing access to all users (walkers, cyclists, barrier free users) in new road projects.
9. Look for opportunities to loop water mains where feasible.

Public Facilities

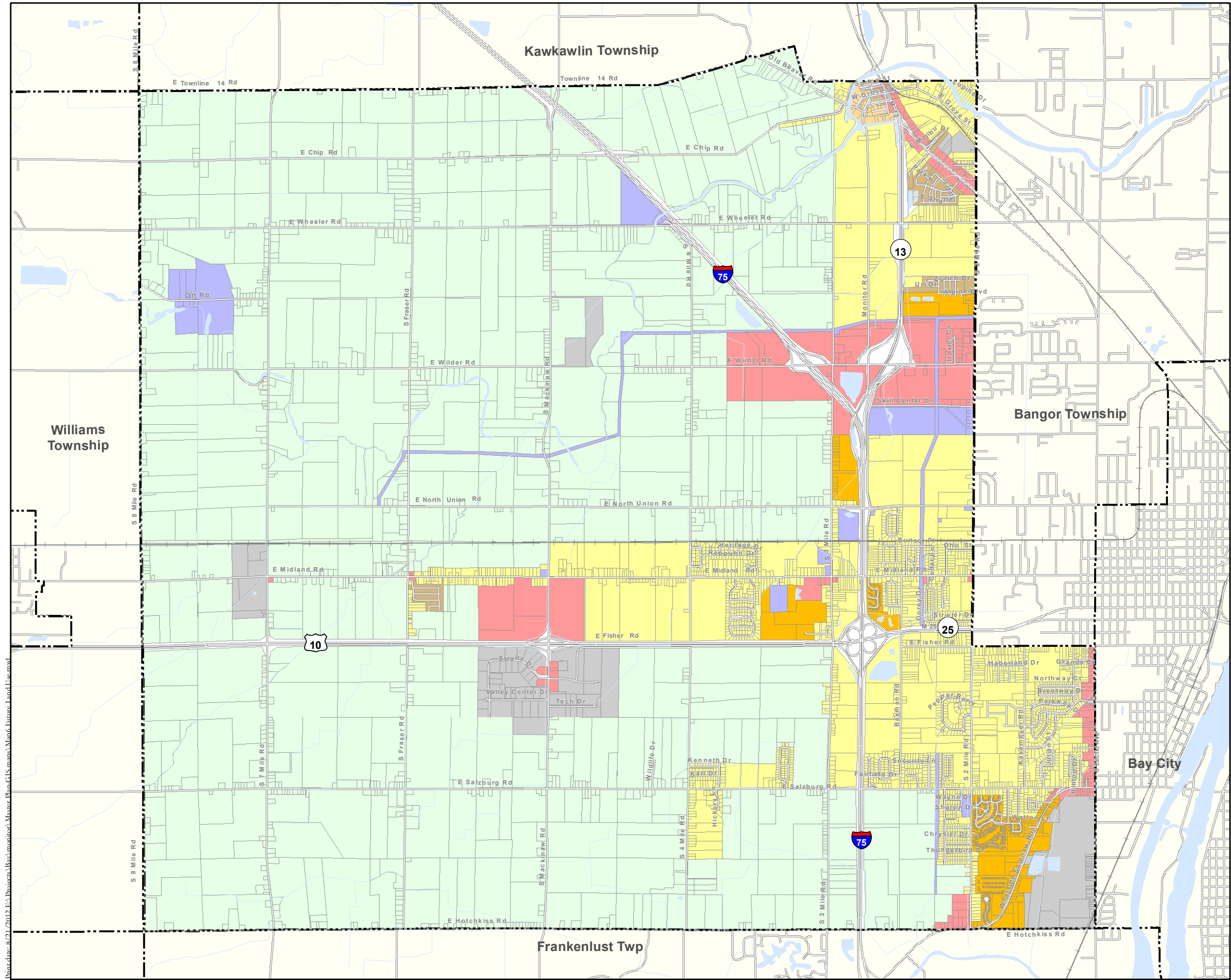
The Township will plan to provide necessary emergency, cultural and recreation facilities to enhance the Monitor quality of life. As development increases, planning for future recreational facilities, additional fire fighting facilities and maintaining communication with the schools in order to track enrollment will be very important. Utilizing the valuable cultural resources at the colleges and university in the area is also an objective of the Master Plan.

Goal: To provide necessary emergency, cultural and recreation facilities to enhance the Monitor quality of life.

Objectives:

1. Upgrades and modifications shall cause public facilities shall be accessible to all citizens.
2. Maintain and plan for adequate park land based on national standards for residents as population increases.
3. Continue to provide general information to schools on the increasing development of the Township to facilitate future school planning.
4. Promote Delta College and Saginaw Valley State University as valuable cultural resources for Township residents.
5. Continue service provision agreements with adjacent communities and explore opportunities for additional firefighting resources, resulting in more efficient and effective service delivery for Monitor residents.

Future Land Use Plan



Map 5 Future Land Use

Charter Township of Monitor
Bay County, Michigan
July 8, 2013

- FUTURE LAND USE**
- Agriculture/ Residential
 - Single Family Residential
 - Kawkawlin Residential
 - Multiple Family Residential
 - Mobile Home Park Residential
 - Commercial
 - Industrial
 - Public/Semi Public

0 4,000 8,000 FEET



McKenna
ASSOCIATES

Base Map Source: Bay County GIS, 2006. Michigan Geographic Framework, Michigan Center for Geographic Information, Version 12a.

Introduction

Delineation of future land use designations are, of course, the primary reason that a Master Plan is created. The designations included in the Monitor Township Master Plan have been carefully selected by the Planning Commission to describe all the land in the community for use into the next century. Substantial time and effort were invested in the decisions included in the Future Land Use Map. The following commentary describes the categories of uses included in the plan. Then, the category assignments are described in detail.

Future Land Use Categories

Agriculture. Agricultural land is considered to be an important community resource that should be used for the production of food products during the life of this plan. The Agriculture designation is *not* intended to “hold” land until development reaches the site. Rather, land designated Agriculture denotes the community’s intention to provide the necessary land area for the continuation of the important agriculture industry in the Monitor community. The minimum area needed for active agriculture use is understood to be not less than 20 acres in area although this plan will permit creation of smaller lots in certain circumstances.

Agriculture is compatible with all other land uses. However, creating a buffer setback area between active agricultural fields and new residential development is preferable because odors, sounds and similar characteristics of agricultural operations can be uncomfortable for some residents. Single family residences can be created in the Agriculture areas, particularly for residences of the farmers’ families. It is recognized that for purposes of financing the construction of a house, it may be necessary to describe a smaller lot area where the house will be located. However, the lots created for each home should be designed so that at least 20 acres of total land area are visually and contiguously associated with the home site. In no event shall a new lot for a house be less than 60,000 square feet in the Agriculture classification where sound planning principles are followed to create lots. In particular, this Master Plan discourages the creation of narrow “bread-slice” lots that waste acreage in deep unused rear yards. Generally, new lots created in the Agriculture classification after adoption of this Plan should maintain a width to depth ration of not more than two and one-half feet of depth for one foot of width.

In certain and specific circumstances, the Planning Commission recognizes that land designated for Agriculture at this time may be converted to Single Family Residential utilization sometime in the future. However, such residential use of the agricultural land shall not be considered unless the following conditions are met:

1. It is consistent with the Goals and Objectives of this Master Plan.
2. The land shall be located between Three Mile and Mackinaw Roads north of U.S. 10 and east of Three Mile between Fisher and Salzburg Roads.

3. Adequate public sanitary sewer and public water supply lines shall be available within five hundred (500) feet of the development site and shall be extended onto the site for use by the resulting residences at the sole expense of a private developer.
4. The site shall be contiguous with an existing, developed, compatible residential zoning district or separated from such an existing, developed district only by a road.
5. An adequately paved public road shall be available to service the site for access by the internal streets at the time that the site is considered for rezoning.
6. Residential utilization of the site shall not, in the opinion of the Township, be detrimental to the continued agricultural use of other land in the Township.
7. The Township shall only consider the Single Family Residential use for such land subsequent to receipt of a rezoning request.

When a site meets the requirements specified above, the Township may agree to permit single family use of the site consistent with the designations provided for Single Family Residential uses in this Plan. Single Family Residential use of land designated Agriculture shall be prohibited unless the specified conditions are satisfied.

Single-Family Residential. Although the Agriculture designation permits single-family homes, primarily for use by farmers' families, the areas designated for Single-Family Residential are intended to be used primarily for residences although some of those homes may be in the Agriculture areas.

Single-Family Residential will permit homes to be developed on lots as small as 10,000 square feet in those areas with public sewer and water services nearest the urbanized limits of Bay City. Where sewer and water is available west of the existing urbanized area, new lots in the Suburban Residential designation will be permitted to develop with not less than 12,000 square feet of area. New houses in Single Family Residential areas are intended to be constructed in subdivisions or site condominiums with paved streets, sidewalks and a full array of public utility amenities.

The Plan anticipates substantial infill residential development in the eastern part of the Township. That area is well-served with public utilities and has excellent access from major transportation arteries. As is indicated in Map 5, the Township will encourage substantial Single Family Residential development on the eastern side of the community. Most of that development is expected to be on lots of 10,000 to 30,000 square feet. Care must be taken to encourage a variety of lot styles and sizes in order to avoid monotony of design.

Multiple-Family Residential. Apartments and attached condominiums are both intended for inclusion in this classification. Existing apartments and attached condos are also included in the designation. The Multiple-Family designation is often used for land that is bordered on one or

more sides by commercial uses and on the sides by lower intensity single family designations. Thus, Multiple-Family is frequently used as a transitional use between single-family neighborhoods and higher intensity uses.

The Township has encouraged construction of attached condominiums in the southeastern part of the jurisdiction. The condos have been popular. More of that same style of development is included for that area in the Future Land Use Plan. The Plan also provides an opportunity for additional multiple family development between US-10 and the Central Michigan Railroad, west of I-75.

Mobile Home Park. Previously developed Mobile Home Parks in the northeast and west-central parts of the Township are included in this classification. A substantial part of the Township's housing stock is currently included in mobile homes. In 1998 the Township permitted an expansion of Westwood development in the northeast part of the Township and was recently completed. The additional lots have provided for adequate number of mobile home in the Township. No additional land is designated for mobile home park development at this time.

Public/Semi-Public. Land designated in this category is intended to be used for various major public or semi-public purposes. For example, the campus for an educational institution or substantial open space recreation uses will be included in this category. Public/Semi-Public uses are compatible with all other land uses. No new sites are included for this designation.

Commercial. As the name suggests, all typical commercial land uses including retail and various services are included in this category. Commercial land uses should be on major roads such as M-84. The Planning Commission has determined that individual neighborhood commercial nodes close to residential development are inconsistent with the preferences of the residents. Neighborhood commercial designations are intentionally not included in this plan. Commercial land uses are generally incompatible with residential development. Where it is necessary for commercial land uses to abut residential uses, substantial landscape or setback buffers should be established to protect the residences from undesirable attributes of commercial development. Undesirable commercial characteristics include glare from lighting, noise, odors, and other similar attributes. Commercial uses also bring nonresidents into the community increasing traffic and creating a demand for additional public safety services. Hours of operation for commercial establishments can be disruptive to normal residential evening and night activities.

The Township expects substantial new commercial development in two geographic areas. Both those locations have excellent access to the interstate transportation network and are able to be serviced with utilities. Those commercial growth nodes are:

Wilder Road. As was previously described, the Wilder Road corridor is home to extensive commercial development in Bay County. In Bangor Township and Bay City, major shopping centers, restaurants, lodging facilities and service commercial uses are found on Wilder

Road frontage lots. The most significant modern commercial developments in Monitor -- such as Meijer, Menards and other restaurants and hotels have also been built on Wilder. The Future Land Use Map provides additional opportunity for expansion of that area to the north and west. However, the Township is aware that development of the land west of the freeway interchange will require substantial expense for extension of the utility network to that land. Therefore, the property should only be rezoned when a developer is ready to extend the utilities for development. The Township officials may wish to pursue a planned unit development agreement in order to provide for development of the area where utilities are necessary.

Mackinaw Road. It is expected that the developing technology park on the west side of Mackinaw Road, south of the US-10 interchange, will require commercial services. Additionally, the freeway provides excellent access to this location from throughout the region. The Planning Commission has designated approximately the frontage along the east side of Mackinaw for commercial to serve the existing and future industrial and technology uses. It is expected that some of the commercial development on the east side of Mackinaw, south of the interchange will be best suited for warehouse-style retail development such as major home improvement/hardware store retailers.

Midland Road. As was noted in the Existing Land Use analysis, the Midland Road corridor includes a mix of land uses. The uses generally indicate a trend that private development interests will take advantage of opportunities to develop the Midland Road frontage for commercial uses if adequate infrastructure is made available. However, the Planning Commission has learned from the County Drain Commissioner that severe storm drainage limitations will be a substantial obstacle to development in the corridor. If the storm drainage problems can be resolved, the Planning Commission will reevaluate the Midland Road corridor to consider additional nonresidential development opportunities. The Township may wish to undertake a corridor study of the area in order to determine the most appropriate infrastructure improvements and land use designations for the Midland Road area.

Industrial. The Industrial designation includes warehousing, manufacturing, assembly and research and development uses. Industrial land use is the most intense category in hierarchy of uses. Industrial facilities are compatible with most commercial uses and large office sites. Characteristics of industrial land use that are disruptive to residential uses include glare from lighting, noise, odors, and other similar attributes as with commercial facilities. Freight truck traffic can be an intense component of industrial uses and is very disruptive to residential and other low intensity uses. In order to reduce the disruptions attributable to freight carriers it is sound planning practice to create industrial land uses with frontage on or good access to major highways. Industrial users also prefer sites with visibility on interstate freeways to permit easy identification of their location.

In support of the substantial work and funds that the Township has invested in the DDA District south of the US-10/Mackinaw Road interchange, the Future Land Use Plan provides a large area

on the east side of Mackinaw Road where the developing technology parks can expand. The Township particularly seeks to expand light industrial development in the DDA District. The parks will be augmented with commercial land located along the frontage on the east side of Mackinaw Road.

Kawkawlin. The unincorporated village of Kawkawlin is Monitor Township's primary traditional neighborhood. Kawkawlin, in the northeast corner of the Township, has a traditional neighborhood layout with smaller lot single family detached residences and a grid street pattern. The Kawkawlin River flows around the community to the west and north. M-13 bisects the community into east and west halves. The area includes many traditional village characteristics such as a commercial area on M-13 that is mixed with tight knit residential uses within the surrounding neighborhood. Within Kawkawlin, the designations of "Kawkawlin Residential" and "Commercial" are intended to preserve the traditional character of the area. However, using the current standards in the zoning ordinance, most of the existing lots and developments within the Kawkawlin area are non-conforming. The Ordinance should be updated to reflect the Township's desire to maintain the existing layout of the Kawkawlin area and expand options for uses that are compatible to this specific area of the Township.

The future land use plan for the Kawkawlin community includes an integrated mixture of uses, much of which will be within a reasonable walking distance to a majority of the core village area. Many of the homes in Kawkawlin exhibit traditional architectural styles and have been an important part of the history of the Township. Within the Kawkawlin area, there are a wide variety of housing types that could be appropriate. Small lot, single family detached house with detached garage is the most dominant existing building type. Other building types that would also be appropriate include; townhouses, duplexes, row houses, and courtyard apartment buildings. Uses along M-13 within the Kawkawlin area include primarily small scale retail uses, office, restaurants, and residential uses. The Mixed Use/Transitional designation is intended to improve the compatibility of these uses with the adjacent traditional residential uses. Promoting a mix of commercial and office uses along M-13 is essential in ensuring the viability of the Kawkawlin area.

Implementation

Implementation Strategies

Implementation strategies are a key component of any community Master Plan. They determine how the plan's guidelines and recommendations become reality. A community's Master Plan should never be viewed as a finished product. As events or needs of the community demand, various adjustments or additions will be required. It is not anticipated that the Plan's major goals and objectives will require change. Rather, as the plan is interpreted and implemented, certain aspects will require periodic adjustment. Economic circumstances in the region, state and nation can also influence the viability of the Township's Master Plan. As circumstances change, the Master Plan must be reevaluated to assure the best interests of the community's residents and businesses are served.

Zoning

The Township Zoning Ordinance is a primary tool in achievement of the Master Plan's goals. Although the plan map is not a zoning map, it should be used as a guide to zoning amendment decisions, whether the amendments are initiated by the Planning Commission or by petitioners. The timing of changes to the zoning map is key to implementing the Plan. Further, the map's proposals should be viewed as flexible when considering the zoning of specific sites, especially if no pattern has yet been established. The Plan does not follow property lines and, with the exception of environmental concerns and existing and potential land use conflicts, whether a zoning pattern is established on the east or west side of a thoroughfare is often not the critical issue. The *pattern* of land utilization is the critical issue.

Depending on the rate of developmental change and requests for change to the zoning map, an annual appraisal of the zoning map should be prepared. It is generally accepted practice to provide zoning on the basis of a five-year land use projection, whereas the Plan is a fifteen to twenty-year projection tool.

The zoning ordinance should be reviewed to ensure that the environmental, land use and circulation proposals of this plan are reflected in the ordinance, particularly under site plan review and special land use approval standards.

Land Division Regulations

Like zoning, land division regulation, under the Michigan Land Division Act (P.A. 288 of 1967, as amended through P.A. 591 of 1996) is a tool for the implementation of this Plan. While zoning deals with land use on a site by site basis and activities in selected areas, land division standards are concerned with the process of dividing land and maintaining the quality of individual developments.

Subdivision standards, as permitted to be established under the Land Division Act, are regulated in Monitor by the Subdivision Control Ordinance. The Ordinance is intended to

protect the needs of residents by providing both site design controls and improvement standards. Design controls provide for the arrangement and location of streets, configuration of lots, the provision of open space, and the sufficiency of easements for utility installations. Improvement standards ensure adequate roads and other physical improvements.

All other land divisions in Monitor Township are also regulated by the Land Division Act. The act permits the Township to establish land division regulations that delineate local authority and responsibility for the legal approval of land divisions. When land is divided outside subdivisions, regulations may be established to assure lots are created consistent with the requirements of this Master Plan. The regulations can also require the lots to maintain minimum access standards to assure availability of public or private roads for the lots. The Township may wish to adopt regulations to make certain land divisions are provided consistent with the intentions of this plan.

All the land division regulations described in this section were recently modified by the Michigan legislature and governor. The Planning Commission must remain alert to changes in this area of regulation to assure the Township standards and requirements are consistent with the authorizing legislation.

During the past 30 years, Michigan condominium regulations have been modified to permit the ownership of land by a co-owners association. The Michigan Condominium Act was significantly modified in 1982 to permit condominium ownership of land. Since then, many developers have created site condominiums as a substitute for land subdivisions. Site condominium development can be attractive to the developer because the approval process can be much shorter as compared with subdivision development. The Condominium Act requires condominiums to comply with local ordinances. The Township established standards to regulate site condominium development of land in the Township. Those regulations should be periodically reviewed and amended as appropriate to ensure the continued productive use of the standards.

Public Understanding and Support

The necessity of citizen participation and understanding of the planning process and the Plan cannot be overemphasized. A carefully organized public education program is needed to organize and identify public support in any community development plan. The lack of citizen understanding and support can seriously limit implementation of the planning proposals.

In order to organize public support most effectively, the Township must emphasize the reasons for the planning program and encourage citizen participation in the adoption of the Plan and the continued planning process. Public education can be achieved through an informational program involving talks, newsletter articles, and preparation of simple summary statements on plans for distribution. Participation by residents in various civic groups is evidence of community involvement.

Continuous Planning

A role of the Planning Commission is to provide planning recommendations to the Township Board. This planning function is a continuous process that does not terminate with the completion of this plan. Rural-residential areas are in constant change and planning is an ongoing process of identification, adjustment, and resolution of problems. To sustain the planning process and generate positive results, maintain momentum, and respond to change, the Plan should be reviewed and updated every three to five years.

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