

2013 Comprehensive Plan for Land Use



Prepared by
Delta Charter Township Planning Commission

With assistance from
Birchler Arroyo Associates, Inc.
www.birchlerarroyo.com

Acknowledgements

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I, Andrea Cascarilla, Secretary of the Delta Township Planning Commission, attest that the 2013 Delta Township Comprehensive Plan was adopted by the Planning Commission on January 28, 2013.



Andrea Cascarilla



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Comprehensive Plan for Land Use

“Make no little plans;
they have no magic to stir
men's blood and probably
will themselves not be
realized. Make big plans;
aim high in hope and
work...”

Daniel Burnham

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Chapter 1 Introduction

A scenic view of a lake with a wooden pier in the foreground and a blue sky with white clouds. The pier is made of light-colored wood with horizontal slats and is partially submerged in the water. The water is calm and reflects the sky and clouds. In the background, there are rolling hills and a small white building on the right side. The overall scene is peaceful and natural.

Planning today will
make a difference
for generations to come

PURPOSE OF THE COMPREHENSIVE PLAN

This Comprehensive Plan is intended to guide Township officials and citizens in making decisions about public facilities and the use of public and privately owned land. The Plan is a land use and infrastructure plan that sets forth local goals and objectives for community growth and redevelopment over the next twenty years. This Plan was prepared under the provisions of the Michigan Planning Enabling Act, PA 33 of 2008, which provides Township officials with the authority to prepare and adopt a future land use plan which may be referred to as a comprehensive plan or master plan. The Comprehensive Plan is comprised of text and supporting graphics. The Plan serves as the basis for the Township's Zoning Ordinance, Subdivision Regulations, and other local land use regulations. The Plan also provides direction for the drafting of the Township's annual Capital Improvements Program. Section 7 of the Planning Enabling Act states:

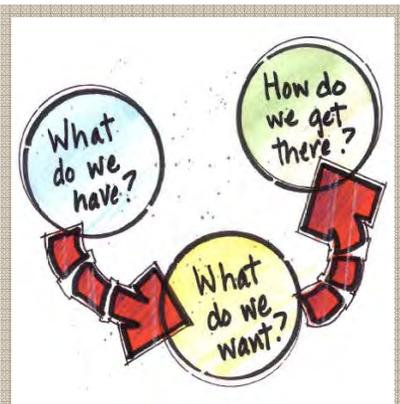
"The general purpose of a Comprehensive Plan is to guide and accomplish, in the planning jurisdiction and its environs, development that satisfies all of the following criteria:

1. Is coordinated, adjusted, harmonious, efficient, and economical.
2. Considers the character of the planning jurisdiction and its suitability for particular uses, judged in terms of such factors as trends in land and population development.
3. Will, in accordance with present and future needs, best promote public health, safety, morals, order, convenience, prosperity, and general welfare.
4. Includes among other things, promotion of or adequate provision for 1 or more of the following:
 - A. A system of transportation to lessen congestion on streets.
 - B. Safety from fire and other dangers.
 - C. Light and air.
 - D. Healthful and convenient distribution of population
 - E. Good civic design and arrangement and wise and efficient expenditure of public funds.
 - F. Public utilities such as sewage disposal and water supply and other public improvements.
 - G. Recreation.
 - H. The use of resources in accordance with their character and adaptability.

Plan Relationship to Zoning

Section 203 of the Michigan Zoning Enabling Act, PA 110 of 2006, specifies that a zoning ordinance shall be based upon a plan. The Comprehensive Plan is intended to provide a legal foundation for the Delta Township Zoning Ordinance. The Plan (see Chapter 8)

The Comprehensive Plan is a set of policies, strategies, and plans to enhance and improve the Township over a long-range planning horizon.



What do we have?

The planning process begins with a look at the Township's existing conditions.

What do we want?

Public input establishes a vision for the future of the Township.

How do we get there?

The COMPREHENSIVE Plan outlines specific actions, recommendations, and strategies for achieving the Township's vision.

also contains a Zoning Plan, required by section 33 of PA 110, which explains how the land use categories on the future land use map relate to the districts on the zoning map.

It should be noted that the Comprehensive Plan does not directly control land use. This control is left to the Zoning Ordinance and Map, to the Land Division Ordinance, the Subdivision Regulations and various other local ordinances. Final decisions regarding rezonings, special land use permits, and subdivision plats are made by the Township Board.

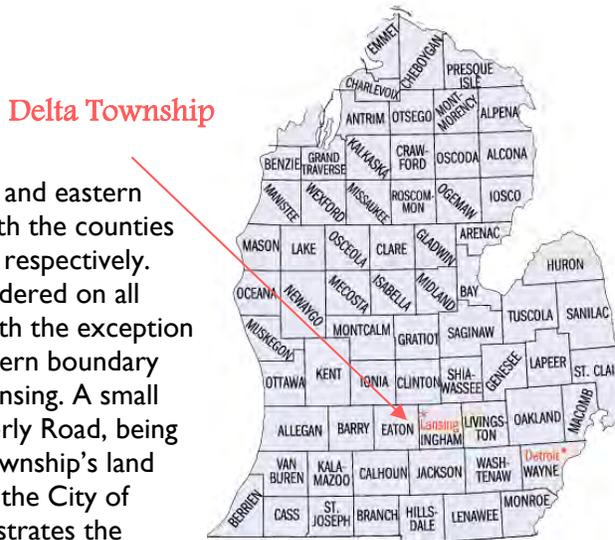
Public Input

This Plan was prepared following an analysis of existing conditions, a review of key issues identified by the public, consultation with adjoining units of government and other governmental agencies and discussions with the Planning Commission and the Township Board. A futuring session was held in May 2011 and an opinion survey was conducted in 2011 with over 100 responses. A public hearing was also held in October 2012 prior to the adoption of the Plan.

REGIONAL SETTING

Delta Township is located in central lower Michigan in the northeastern corner of Eaton County. The eastern border of the Township is located approximately 1 1/2 miles from the Michigan State Capitol Building in Lansing. Eaton County, organized in 1837, was named for John Eaton, secretary of war cabinet member for the seventh United States President Andrew Jackson. Figure I-1 depicts the location of Eaton County and Delta Township in Michigan's Lower Peninsula.

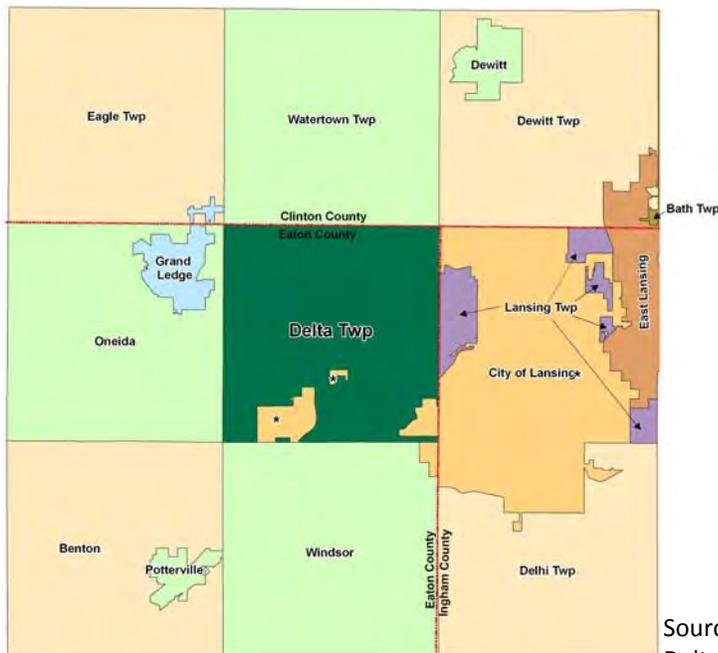
Figure I-1: Michigan's Lower Peninsula



The Township's north and eastern borders are shared with the counties of Clinton and Ingham respectively. Delta Township is bordered on all sides by Townships with the exception of portions of the eastern boundary abutting the City of Lansing. A small area adjacent to Waverly Road, being less than 2% of the Township's land mass, was annexed by the City of Lansing. Figure I-2 illustrates the municipalities which are adjacent to Delta Township.

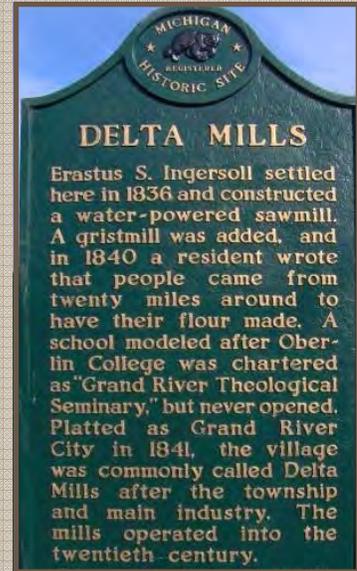
Source: US Census Bureau (Map)

Figure I-2: Township and surrounding municipalities



Source: Delta Township

*425 Areas



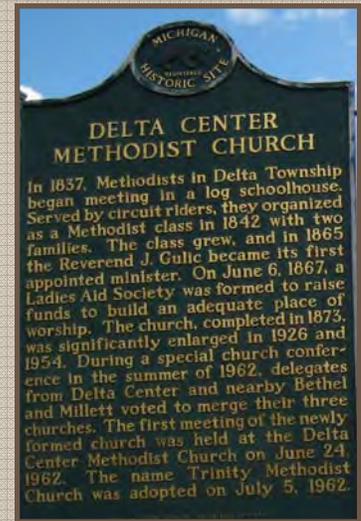
There are 4 state historic markers located within the Township. These markers identify the following historically significant sites:

Delta Mills 1836 Settlement

Delta Mills School

Delta Center original site of 1870's Clapboard Township Hall

Delta Center Methodist Church



INTRODUCTION

Saginaw Highway (M-43), is the main commercial thoroughfare in the township running in an east to west direction for the length of the Township. In 2011 MDOT indicated that the highest traffic volume along M-43 was east of the I-96/I-69 interchange at 25,700 vehicles per day. The highest commercial traffic was recorded west of the interchange at 660 trucks per day. The segment of M-43 between I-96/I-69 in the Township and the junction between Saginaw Street and Grand River Avenue in East Lansing is designated as part of the National Highway System.

Three major Interstate Highways pass through the Township. The southern portion of Delta Township is situated at the junction of I-69 and I-96, providing access to Battle Creek and Kalamazoo to the southwest via I-69, Metro Detroit to the east and Grand Rapids to the northwest via I-96. Interstate 96 connects with I-496 providing easy access to Downtown Lansing to the east of the Township. Interstate 496 provides access to U.S.-127 to the south toward Jackson. The cities of Grand Rapids, Kalamazoo and Detroit are all within a 90 minute drive of Delta Township.

Railroad service and the Capitol Region International Airport serve the Township.



Figure I-3: View of Highway System in Metro Lansing Area Excerpt of Tri-County Reference Map

INTRODUCTION

Surveyed in 1827, by Musgrove Evans, settlement of the Township occurred beginning in the 1830's. Three unincorporated historic settlement areas remain within the Township. Delta Mills on the Grand River north of the Webster Street Bridge was first settled by Erastus and Sally Ingersoll in 1836, and platted as Grand River City in 1841. A Grist Mill owned by the Ingersoll's was central to the naming of this area in the north central part of the township.

The center of the Township at Canal Road and St. Joseph Highway was the location of the first Township Hall a white clapboard building erected in the 1870's and used through the early 1950's. In 1955 a new township hall was located about a mile north of the original at the intersection of Canal Road and Saginaw Highway. The unincorporated community in this area of the Township is known as Delta Center.

A third settlement area known as Millett, is located in the southeast corner of the Township along Old Lansing Road east of Creyts Road and west of Waverly Road. The original unincorporated village Millett's Station, was platted in 1874 by former Eaton County sheriff Silas Millett. The Grand Trunk Western railroad depot was originally located here and became known as Millett's Station. In the mid 1960's Mrs. Gladys Olds Anderson (daughter of automotive pioneer Ransom Eli Olds) generously donated half of her dairy farm located in the Millett area to the Woldumar Nature Association to assist them in their goal to develop a conservation education program. Today the Woldumar Nature Center has more than 5 miles of trails on 188 acres of woodland, prairie, river-side and pine forest. The Sands-Moon house log cabin, one of the oldest residences in Eaton County which was built around 1855, was moved to the Woldumar Nature Center in 1980, and provides a link to the Township's early pioneer lifestyle during special events and programs.



The Sands Moon Log Cabin, relocated to Woldumar Nature Center, is a valuable historic resource for the Delta Township community.



Historic information and photos in this chapter were obtained from the following sources:

www.michmarkers.com

www.woldumar.org

www.deltatownshiphistory.org



Millett's Station is the home of the Lansing Model Railroad Club, dedicated to the preservation of railroad history (past and present) through public education programs including Open Houses, Clinics, Classes, and Train Shows.

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Chapter 2 Existing Conditions

Agriculture

Active croplands, pasture or orchards.

Single Family Residential

One detached dwelling unit on a single parcel.

Two Family Residential

Duplex rental units or owner occupied condominium units.

Multiple Family Residential

Residential developments or structures containing more than two dwelling units.

Manufactured Home Park

Factory-built, single family detached structures that are constructed to Federal Housing Code standards located within a single housing development.

Office

Business, personal or medical office uses

Commercial

An area where goods are distributed or retail services are provided.

Industrial

An area where raw or unfinished materials or commodities are used to produce a product or service including warehousing activities.

Institutional

Township, County, or State government uses. Including School District, religious organization, or non-profit agency office type uses.

Utility

Public & private utility uses

Water / River

Includes the Grand River and creeks flowing into the river.

Cemetery

Public or private burial or internment uses

Vacant Land

Undeveloped land and areas that cannot be placed in other categories. Includes abandoned agricultural fields and flood plains.

Woodlands

Areas that are covered with deciduous and coniferous species of trees.

Park

Public or private recreational areas which may be in active or passive use.

In order to properly plan for the future of Delta Township it's necessary to analyze existing land use patterns. An Existing Land Use Map (Map 2-1) was prepared by the Community Development Department based on a review of a 2010 aerial flight of the Township. The map depicts the location of various land uses across the Township. A description of each of the land use categories can be found on the left.

Land Use Analysis

The Existing Land Use Map depicts the predominance of single family residential uses in the northeast quadrant of the Township, a concentration of commercial uses along West Saginaw, the existence of large tracts of industries in the southeast quadrant and the majority of the agricultural uses in the southwest corner of the Township. The summary below will provide more detail regarding the Township's existing development pattern by use category.

Agriculture. Agricultural land uses account for approximately 18% of the land cover in Delta Township in spite of the fact that land devoted to agricultural uses has steadily declined over the past several decades. Typically agricultural lands have been converted to residential uses, primarily single family subdivisions. The majority of the remaining agricultural lands in the Township are located west of I-96 and south of St. Joe Highway.

Residential. Four types of housing, being single family residential, two family residential, multiple family residential and manufactured housing, are included in the residential classification. A review of the existing land use map indicates that single family homes are dispersed throughout the Township with the exception of the agricultural area in the southwest portion of the Township and the industrial area in the southern portion of the Township. Single family homes occupy approximately a quarter of the Township's land area and this percentage has steadily increased over the past four decades.

Apartment building complexes are the most common form of multiple family housing. Multiple family housing covers almost 3% of the land area of the Township and is located primarily in the northeast quadrant of the Township. Two family housing is generally concentrated in the northeast quadrant of the Township and occupies less than 1% of the Township. The Township has a single manufactured housing park, consisting of 230 units on a 38 acre parcel, located on Canal Road.

Table 3-9 (Chapter 3) notes the construction of the Township's housing stock by the decade in which it was built. The decade of the 1970's was the most active for residential construction when over 3,400 units were built compared with the 2000-2009 period when more than 1,500 units were constructed.

Commercial. Commercial land uses occupy approximately 3½ % of the Township’s land area and are generally concentrated along West Saginaw Highway between Broadbent Road and Waverly Road. Significant commercial development occurred at the southwest quadrant of the I-96/ West Saginaw interchange in the period between 2000 to 2005. Retailers in Delta Township serve a regional population base.

Institutional. Institutional uses in the Township are estimated to occupy slightly more than 3% of the total land area. The various Grand Ledge and Waverly school complexes occupy the majority of land in the Institutional classification while the Lansing Community College West campus adjacent to I-496 and the Great Lakes Christian College at the Willow/Creys intersection occupy substantial acreage. Grand Ledge Schools own a vacant 114 acre site on St. Joe Highway, just west of Nixon Road which was purchased for future school expansion.

Parks. Areas devoted to parks occupy more than 5% of the Township. As of 2011, there were approximately 850 acres of Township parkland, An estimated 400 acres of privately owned open space was identified, including properties owned by the Audubon Society, Ingham County Conservation League, Woldumar Nature Center and the General Motors parkland adjacent to I-96.

The Grand River

At 343 acres, the Grand River is the largest body of water within the Township. The Grand River which is outlined on the existing land map traverses more than 10 miles from the northern to southeastern portions of the Township. The Carrier Creek and the Miller Creek flow into the Grand River.

An estimated **15%** of the Township was designated as **Vacant Undeveloped Land** in 2010.

Table 2-1: Land Use Inventory

Land Use	Acres 2010	% - 2010
Agriculture	3,596	18.0%
Single Family Residential	5,355	26.8%
Two Family Residential	136	0.7%
Multiple Family	547	2.7%
Manufactured Home Park	38	0.2%
Commercial	672	3.4%
Office	294	1.5%
Industrial	1,439	7.2%
Institutional	634	3.2%
Utility	385	1.9%
Park	1,086	5.4%
Woodlands	2,410	12.0%
Vacant	3,010	15.0%
Water / River	343	1.7%
Cemetery	67	0.3%
Total	20,012*	100%

Source: Delta Township GIS

**Variations exist between total acreage on the Existing Land Use Map and the Land Use Plan Map in Chapter 7 due to differences in the base GIS Data from historical files and more recent sources.*

Table 2-2 below provides a comparison of existing land uses for the 1972 to 2002 period. It should be acknowledged that different accounting methods were used for the various time periods and that full information doesn't exist for all years.

The information presented in Table 2-2 illustrates the long-term decline in the amount of agricultural and vacant land in Delta Township with a corresponding increase in urbanized areas including the residential, commercial and industrial classifications.

Land Use	1972		1984		2002		1972—2002
	Acreage	%	Acreage	%	Acreage	%	% Change
Residential	2,961	12%	3,640	16%	6,153	27%	107%
<i>Single-Family</i>	2,878	12%	3,389	15%	5,582	25%	94%
<i>Multiple-Family</i>	83	0.3%	251	1%	571	2%	+588%
Office	N/A	N/A	97	0.4%	281	1%	+189%*
Commercial	211	0.9%	444	2%	643	3%	+204%
Industrial	N/A	N/A	644	3%	1,644	7%	+155%*
Agriculture	N/A	N/A	7,712	34%	4,632	20%	-40%*
Vacant Land	N/A	N/A	6,165	27%	2,164	9%	-65%*
N/A = Not available							
* = % comparison for 1984 to 2002							
<i>Source: Delta Township Comprehensive Plan 2004</i>							

An estimated **17%** of Township land was categorized as **Woodlands & Public or Private Park** in 2010.

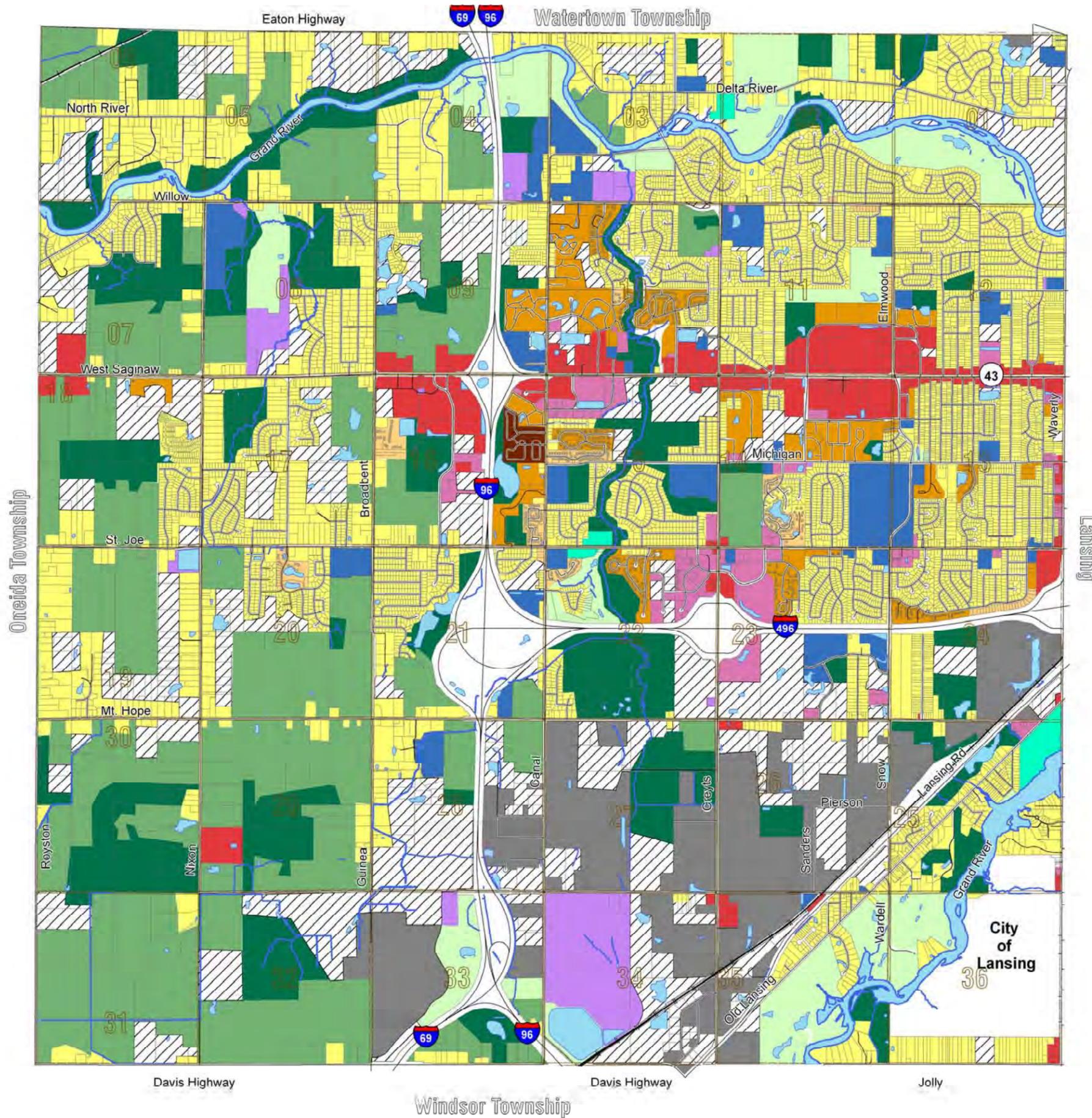
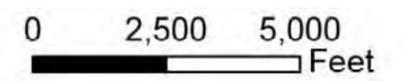
A quick comparison of the existing land use percentages from 2002 to 2010 reveals that predominant land uses in the Township continue to be Single Family Residential and Agriculture. It appears that Commercial, Office and Industrial land uses have experienced similar rates of modest growth from 2002 to 2010. According to the 2010 land use survey, a combined 17% of land consists of woodlands and public and private park land. Approximately 15% of the Township is identified as vacant land. The existing land use survey reveals a wealth of existing natural resources attractive to prospective businesses and residents as well as significant areas of opportunity for future development in the Township.

Variances in the existing land use survey categories used over time allow for only limited comparison of the available data. For instance, according to Table 2-2 above, 6,165 acres were identified as vacant land in 1984 with 2,264 acres of vacant land identified in 2002. This significant decrease may be simply explained by differences in the land use survey categories used. The 2010 data noted in table 2-1, identifies 2,788 acres categorized as vacant, 2,266 acres defined as woodlands and another 1,213 acres of public and private recreational land labeled as park. From 2002 to 2010 the vacant category has appeared to remain relatively consistent, difficult to confirm as there was likely some difference in the way the category was defined and surveyed. In a similar manner we note that if the 2010 acreage for woodlands, park and vacant land are combined they result in a total of 6,267 acres which may account for some of the "loss" of vacant land between 1972-2002.

Map 2-1 Existing Land Use 2012 Delta Township Eaton County, Michigan



- Woodlands
- Agriculture
- Single Family Residential
- Two Family Residential
- Multiple Family Residential
- Manufactured Home Park
- Park
- Institutional
- Office
- Commercial
- Cemetery
- Industrial
- Utility
- Vacant
- Rivers and Detention Ponds
- Streams



Data Source: Delta Township
Map Created October 31, 2012

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NATURAL FEATURES

Topography

The land in Delta Township is generally flat with little variation in elevation. The highest point in the Township is 890 feet above sea level near the Creyts Road/Lansing Road intersection. The lowest point in the Township is 800 feet where the northern course of the Grand River exits the western edge of the Township. Elevations in the Tri-County Region range from a high elevation of 1,052 feet in southern Ingham County to a low elevation of 640 feet in western Clinton County.

An extensive system of county drains has been developed in Delta Township. Public drains in the Township are under the jurisdiction of the Eaton County Drain Commissioner who is responsible for their maintenance. Map 2-2 on the following page depicts Delta Township's Drains.

Soils

Soil conditions are an important determination in the suitability of property for various types of land uses. The fertility of soils in many areas of the Township resulted in agricultural land uses predominating in the past. Clay & muck soil conditions have created problems for the use of on-site drain fields associated with residential uses. Soils classifications also aid in determining where buildings and roads can best be located. The 1978 Soil Survey of Eaton County conducted by the Soil Conservation Service provided the four soil classifications depicted on the Generalized Soils Map, Map 2-3.

The primary soil types in Delta Township are part of the Marlette-Capac and the Marlette-Capac-Owosso associations. The Marlette-Capac association is defined as soils that are classified as nearly level to gently undulating, well drained to somewhat poorly drained loamy soils on till plains. These soils are found in much of the central and western portions of the Township. The Marlette-Capac-Owosso association is classified as nearly level to hilly, well drained to somewhat poorly drained, loamy soils on moraines and till plains. These soils are found in the northern and eastern portions of the Township.

The Houghton-Gilford-Adrian soil classification found in the southwest corner of the Township presents various problems for urban-type development. This soil type is most conducive to agricultural activities.

The Houghton-Gilford-Adrian association and the Capac-Parkhill association make up the remaining portion of the Township. The Houghton-Gilford-Adrian association is identified as nearly level, very poorly drained, mucky and loamy soils in glacial drainage areas. Soils classified as Capac-Parkhill are nearly level, poorly drained and very poorly drained loamy soils; on till plains and low moraines.

The soil classifications provided on the map are general in nature and on-site borings are typically necessary to determine the suitability of a parcel for a particular use.

Eaton County Drain Commission jurisdiction :

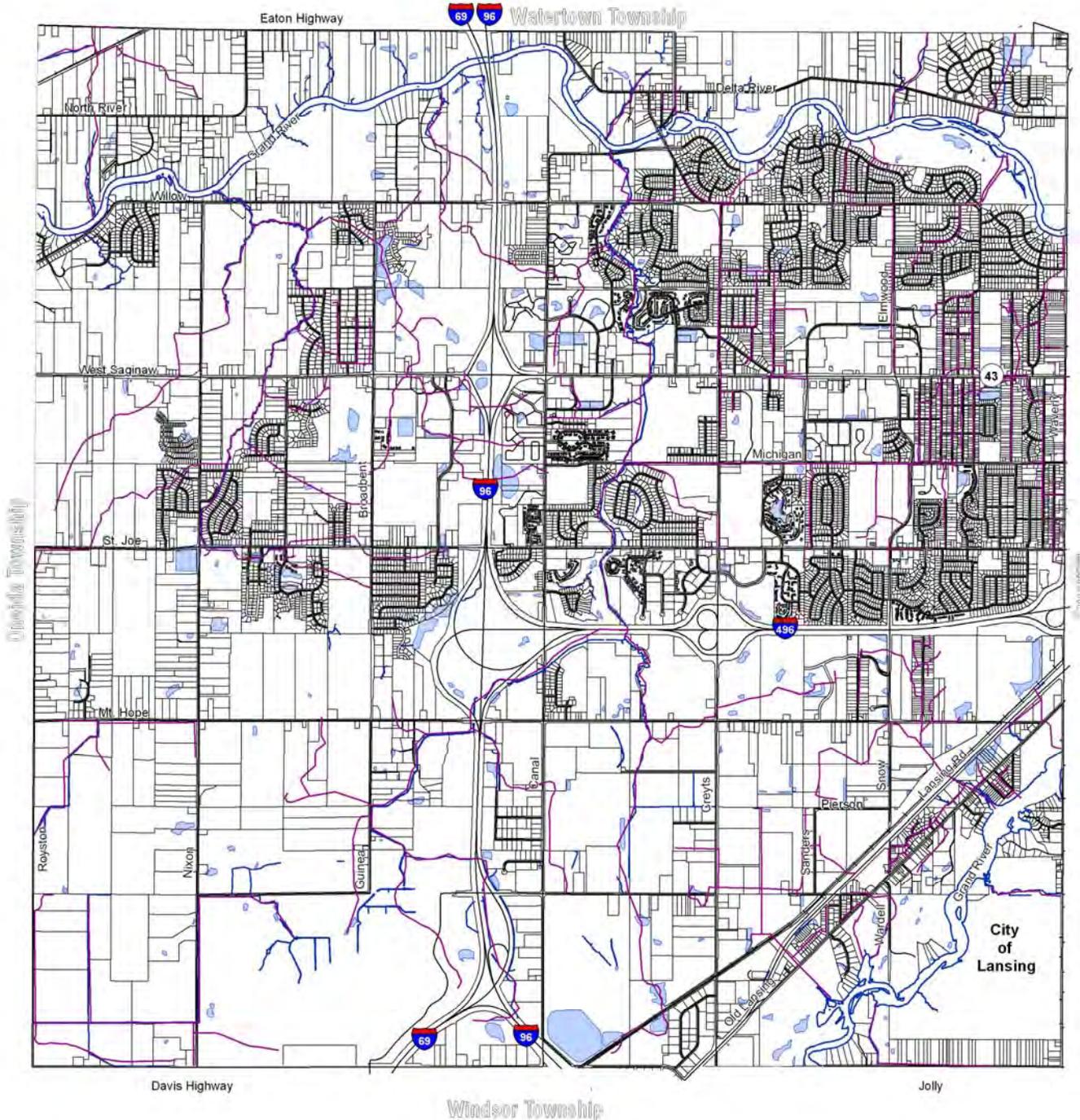
- ◆ ***New Drain Construction*** in accordance with the regulations of **PA 40 of 1956**, the **Michigan Drain Code**.
- ◆ ***Storm Water Management*** regulations consistent with the **Compiled Rules** of the Eaton County Drain Commission
- ◆ ***Soil Erosion & Sedimentation Control*** per the **County Soil Erosion and Sedimentation Control Ordinance, PA 454 of 1994**.

Approval

Maintenance

Enforcement

EXISTING CONDITIONS

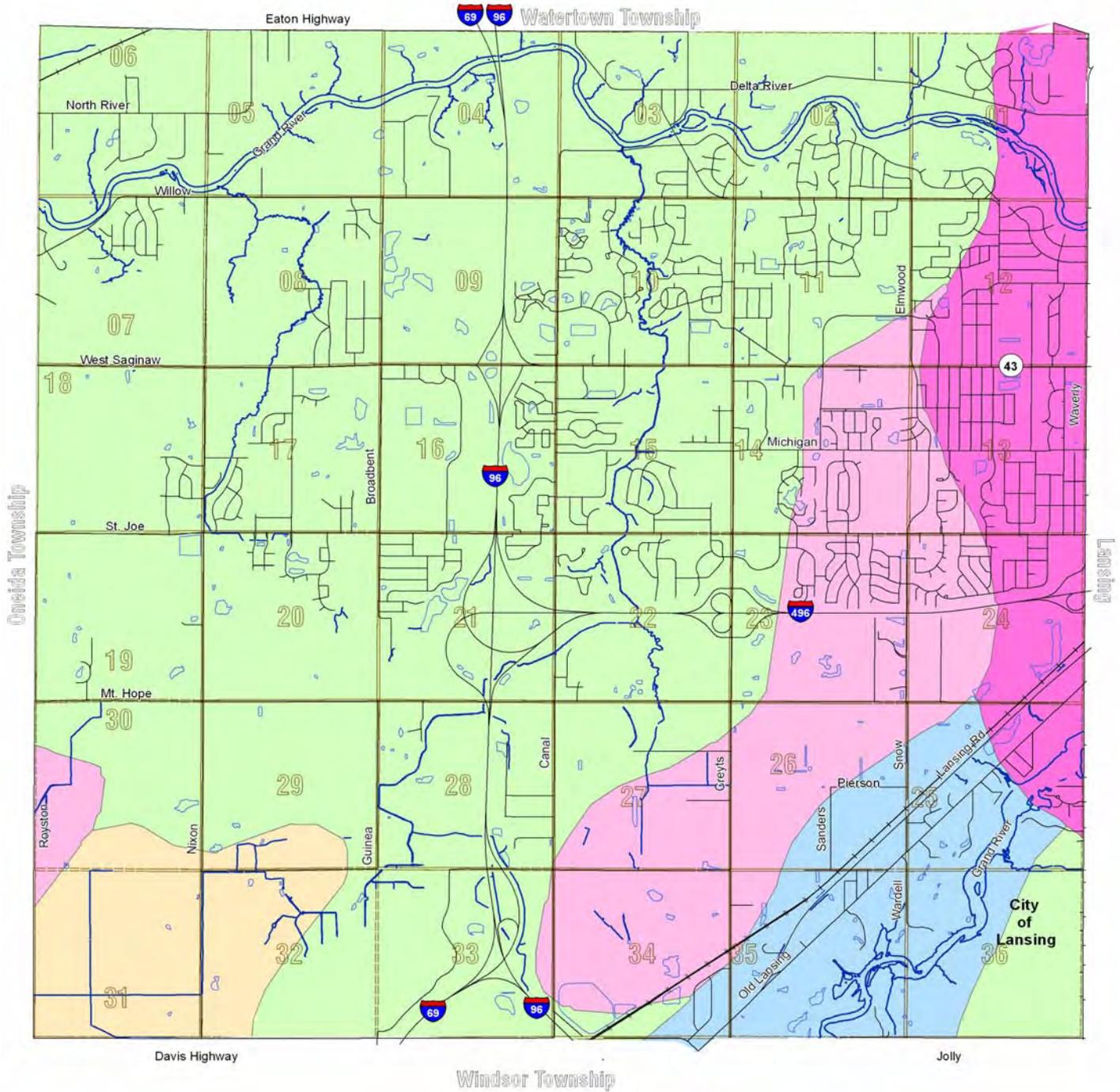


Map 2-2
Storm Drains
 Delta Township
 Eaton County, Michigan

- Storm Drains
- Rivers and Streams
- Detention Ponds



Data Source: Delta Township
 Map Created May 23, 2012



Map 2-3

Generalized Soils Delta Township Eaton County, Michigan



0 2,500 5,000 Feet

- HOUGHTON-CARLISLE-ADRIAN
- MARLETTE-CAPAC-PARKHILL
- MARLETTE-CAPAC-SPINKS
- PARKHILL-CAPAC-LONDO
- URBANLAND-MARLETTE-CAPAC



BIRCHLER ARROYO ASSOCIATES, INC.

Data Source: Delta Township, Michigan Geographic Data Library
Map Created May 23, 2012

Table 2-3: Eaton County Vegetation Comparison of acres 1800-2000

Vegetation Type	1800	2000	% Change
Beech-Sugar Maple Forest	282,000	11,500	-96%
Oak-Forest/ Oak Savanna & Black-Oak Barren	26,600	12,700	-52%
Mixed Conifer Swamp	35,200	500	-98%
Mixed Hardwood Swamp/Black Ash Swamp	19,000	20,300	7%
Shrub/ Emergent Wetland	5,700	17,600	68%
Lake/River	2,200	2,300	4%

Vegetation

The Michigan Natural Features Inventory Report of 2009 prepared for the Tri-County Regional Planning Commission by the Michigan State University Extension provides a wealth of information regarding the green infrastructure for the Tri-County Region. Table 2-3 provides the predominant vegetation types in 1800 and 2000 for Eaton County. It's assumed that vegetative cover information for Eaton County is generally applicable to the Delta Township area. The Existing Land Use Map, Map 2-1 illustrates the location of woodlands in the Township.

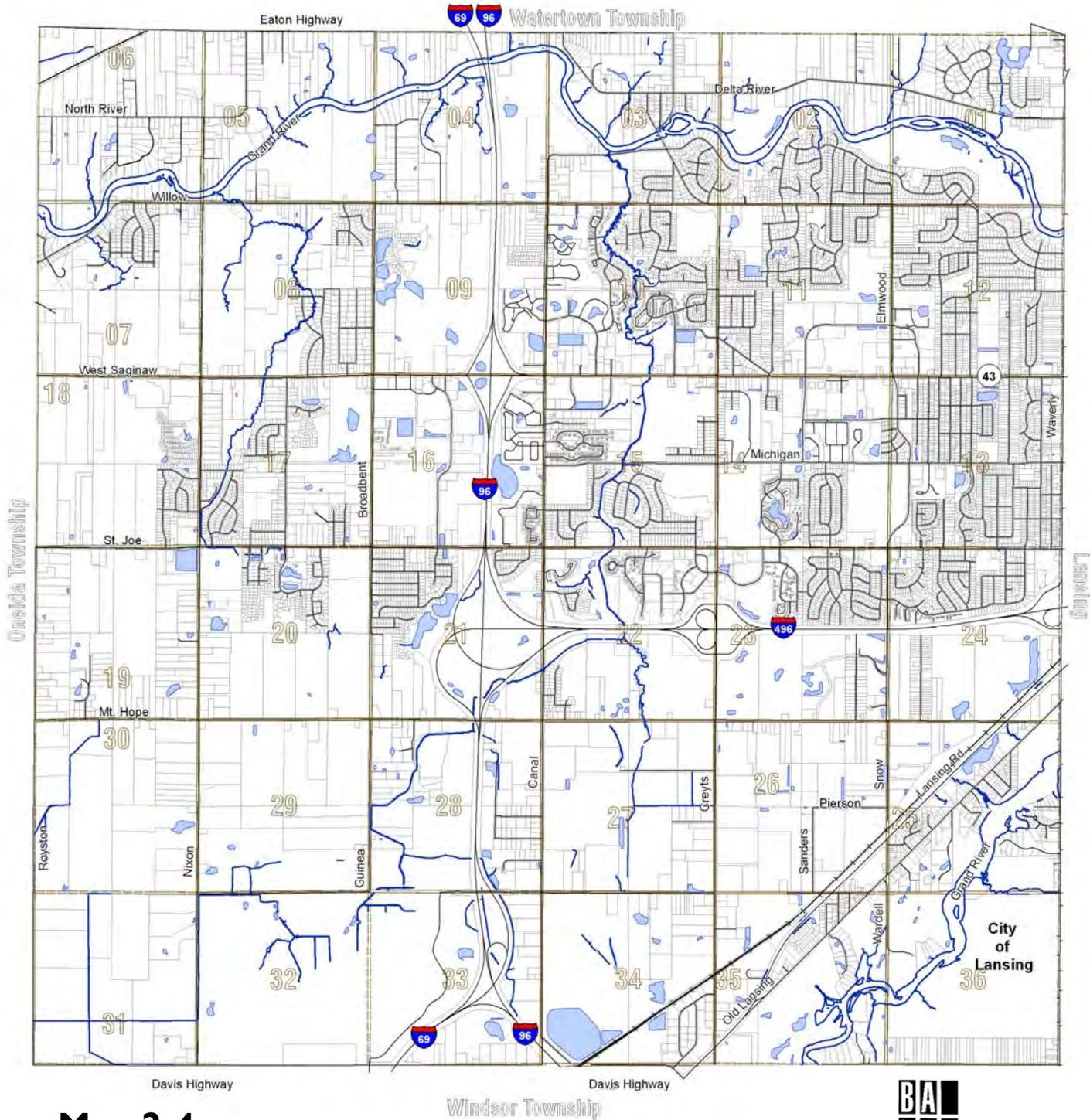
Water Resources

Delta Township, located in the Grand River Watershed, has over 400 acres of ponds, rivers and streams within its boundaries with the principal water feature being the Grand River. The Grand River occupies approximately 348 acres and stretches more than 10 miles in the northern and southeastern portions of the Township. Other water features in the Township include the Miller and Carrier Creeks which are both tributaries of the Grand River. Map 2-4 depicts the locations of water courses and water features which generally flow from south to north.

Wetland areas are found in the Township, often adjacent to the Grand River and its tributaries. The U. S. Fish & Wildlife Service's website provides a National Wetlands Inventory depicting wetlands in the Township.

Wetlands provide a multitude of ecological, economic and social benefits including habitat for fish, wildlife and a variety of plants. Wetlands are important landscape features because they hold and slowly release flood water and snow melt, recharge groundwater, act as filters to cleanse water of impurities, recycle nutrients, and provide recreation and wildlife viewing opportunities for the public.

The pace of development can impact natural resources in several ways. The most immediate change generally caused by development is the reduction of open space and associated wetlands and woodlands. Water quality and flora and fauna habitat areas are also directly affected by development. As the Township continues to develop, the preservation of natural wetlands, woodlands, stream corridors, flood plains and similar natural resources becomes increasingly more difficult and more valuable to the community. The identification of existing natural features present in the Township as part of this planning process will assist Township officials in making informed land use decisions to preserve and protect important natural resources where possible.



Map 2-4
Existing Water Features
 Delta Township
 Eaton County, Michigan

- Detention Ponds
- Rivers and Streams



BIRCHLER ARROYO
 ASSOCIATES, INC.

Data Source: Delta Township
 Map Created May 23, 2012



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Chapter 3 Community Profile

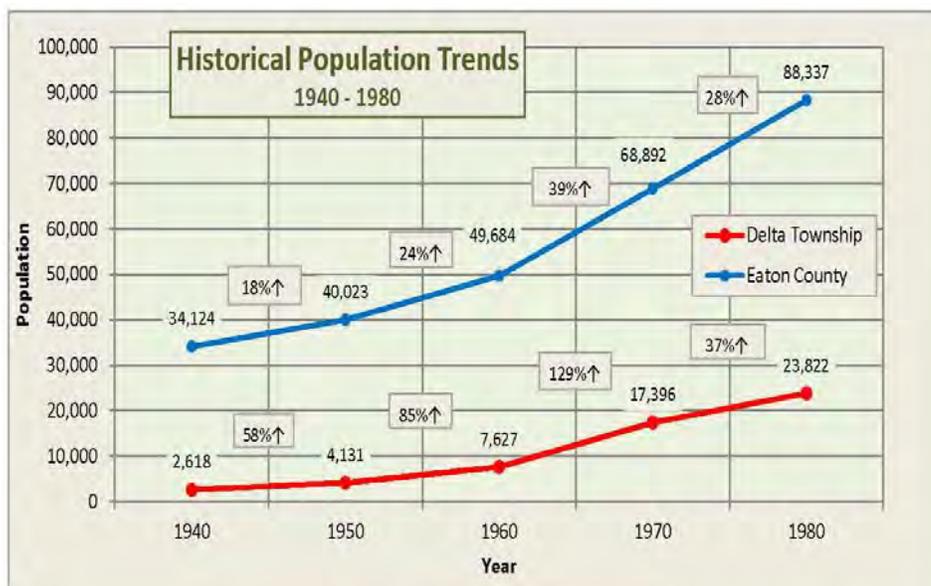
COMMUNITY PROFILE

It is important to understand demographic trends and influences in order to assess future planning needs and goals for Delta Township. Analysis of the past, current and projected population, as well as factors such as age, income and education level of residents, can be used to project and plan for potential future residential and non-residential development. Information on the age and composition of housing stock and available community services together with available demographic information in this chapter will reveal a community profile for Delta Township. During the planning process, Township decision-makers have the opportunity to decide how they wish to encourage current desirable trends and try to cultivate change when needed. This profile and results of the public input process will assist Township officials as they plan and prepare for the necessary infrastructure, municipal facilities and services and the location and type of housing and non-residential development needed to achieve the Township's preferred pattern of growth.

Population

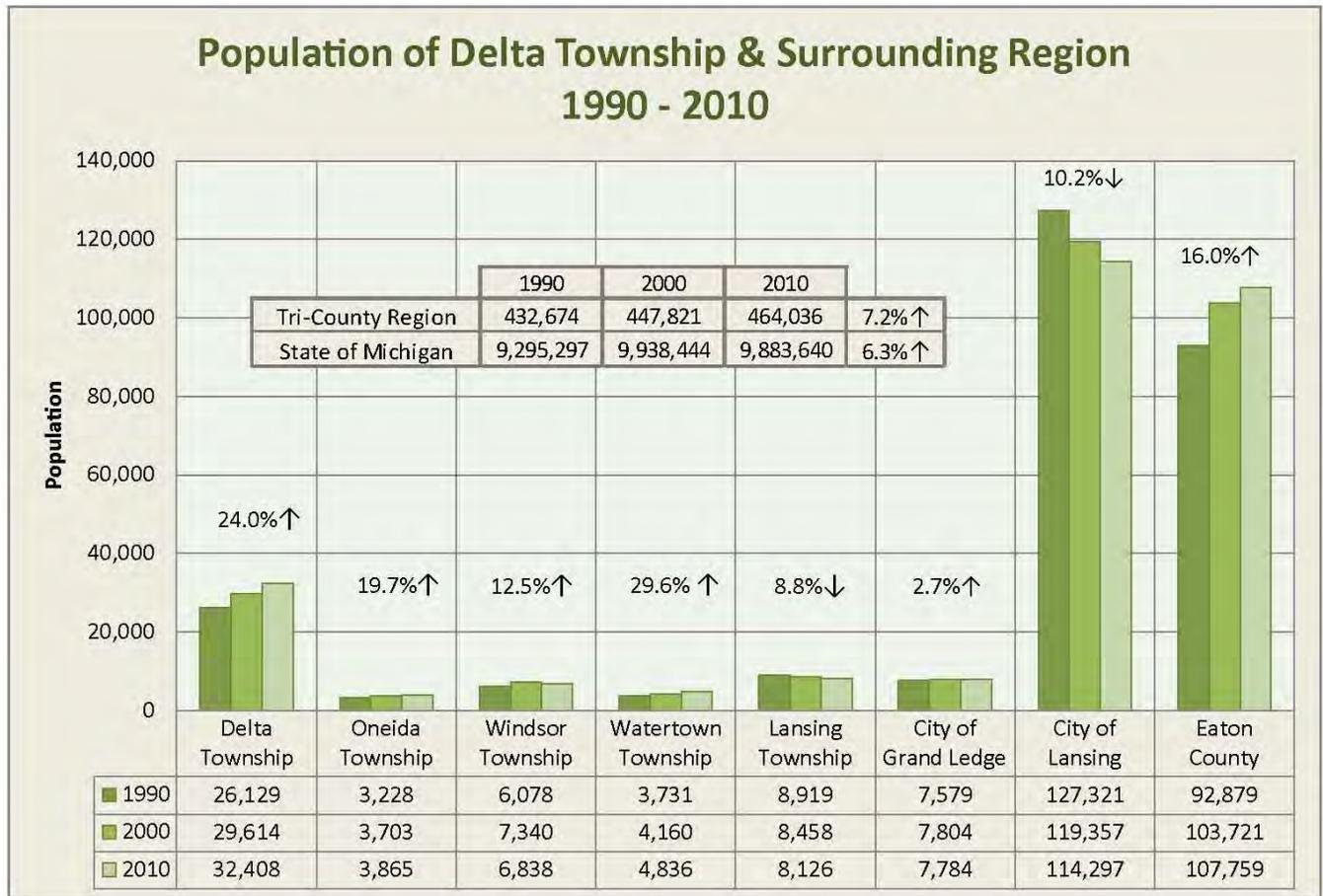
As noted above, the analysis of the Township's population is essential in order to understand the growth experienced in the past as well as accurately predict future trends. Figure 3-1 provides historical population data for Delta Township and other areas for the 1940 to 1980 period. The Township experienced a growth rate of 85% in the 1950's which was surpassed by a 129% growth in the 1960's. The Delta Township growth rate in the four decades from 1940 to 1980 was significantly greater than Eaton County as reflected by the fact that the percentage of the county population residing in the Township increased from 8% in 1940 to nearly 27% in 1980.

Figure 3-1: Historical Population Trends 1940-1980



Source: Delta Township Planning

Figure 3-2: Population Change Delta Township and Surrounding Region 1990-2010



Source: Delta Township Planning

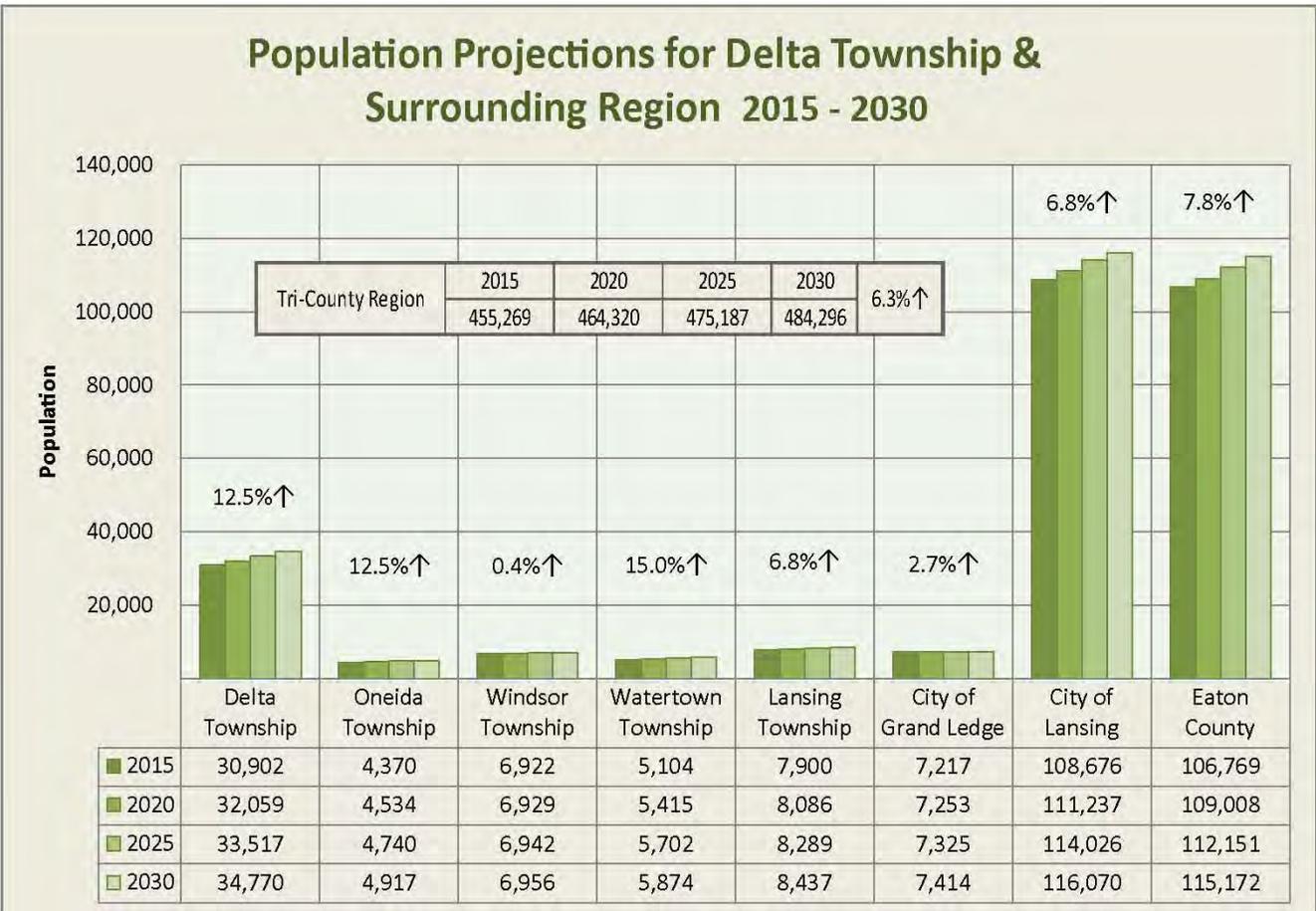
Figure 3-2 illustrates population changes in Delta Township, surrounding municipalities and the State of Michigan for the 1990 – 2010 period.

The following conclusions can be reached from a review of the population data in Figure 3-2 above:

- Delta Township has experienced a higher rate of growth over the past two decades than most of the other municipalities in the region as well as the State of Michigan.
- The growth experienced by the Township in the 1990-2000 period (13%) slightly exceeded the growth which occurred in 2000-2010 (9%).
- The rate of growth experienced by Delta Township in the 1990-2010 period was significantly less than occurred in the decades of the 1940 to 1980 period.
- The rate of growth in the Township was significantly greater than the growth in Eaton County and the Tri-County Region for the 1990-2010 period.
- As of 2010, 30% of Eaton County’s population resides in Delta Township.

The Tri-County Regional Planning Commission (TCRPC) prepares population forecasts for municipalities throughout the Tri-County Area for decades into the future. Figure 3-3 provides population forecasts for the 2015-2030 period. The Township’s projected rate of growth exceeds most other municipalities in the area in the 20 year planning period. The 12.5% growth rate projected for the 2015 – 2030 period exceeds the 9.4% growth experienced in the 2000 to 2010 period. The annual projected population growth of 0.8% for the Township in the 2015 to 2030 period exceeds the annual rate of 0.5% projected for Eaton County.

Figure 3-3: Population Projections for Delta Township and Surrounding Region 2015-2030*



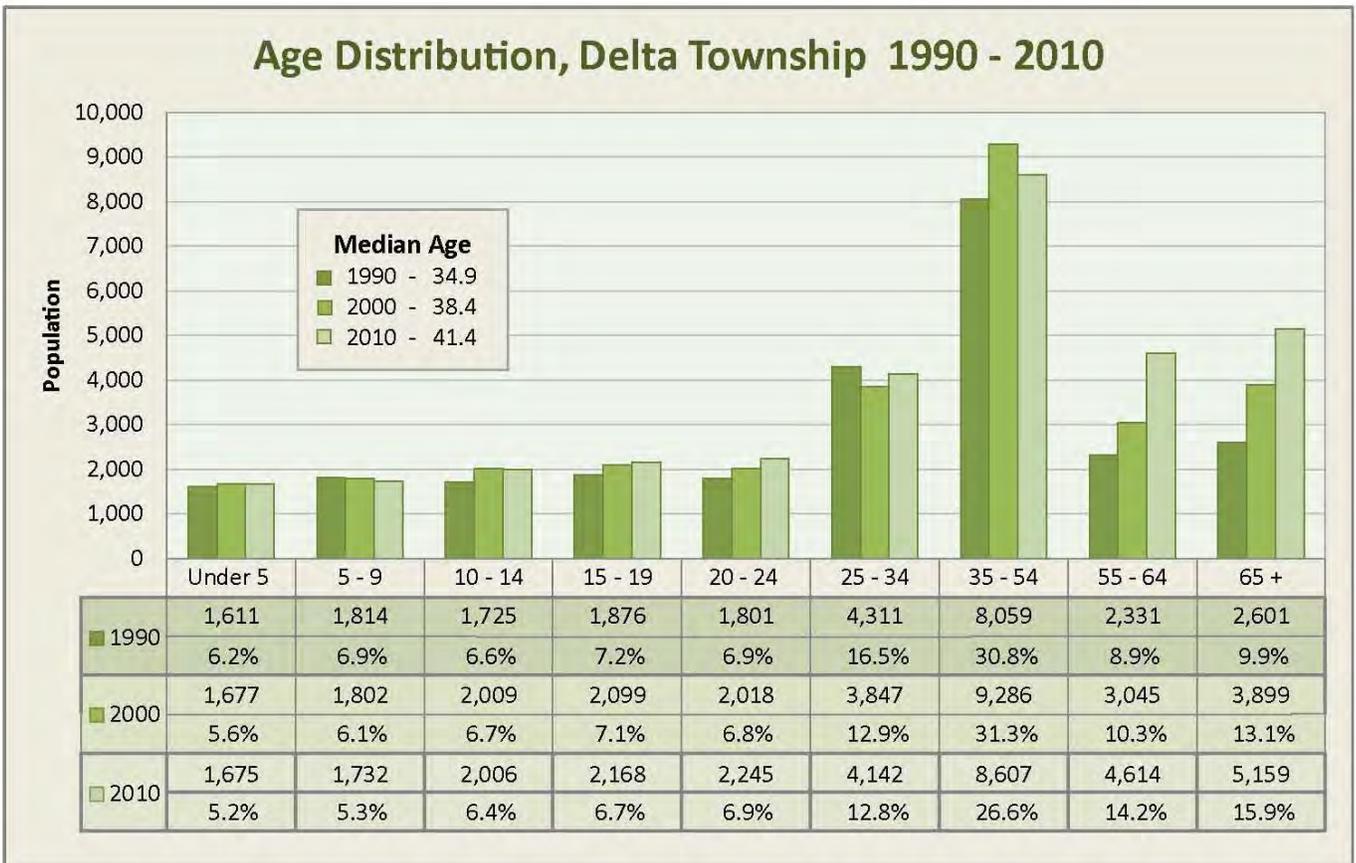
* The 2015 & 2020 Delta Township population projections are less than the actual 2010 U.S. Census Count. The population projections preceded the Census Count and can not be adjusted. New population projections are anticipated from the Tri-County Regional Planning Commission in 2015 in conjunction with the 2040 Regional Transportation Plan.

Source: Tri-County Regional Planning Commission 2035 Transportation Plan (2010)

Age Distribution

Figure 3-4 depicts the age distribution for the Delta Township population for the 1990 to 2010 period. The largest age group in the Township is ages 35-54. Delta Township is reflective of national trends in that the 55-64 and 65+ age groups increased substantially during the past twenty years.

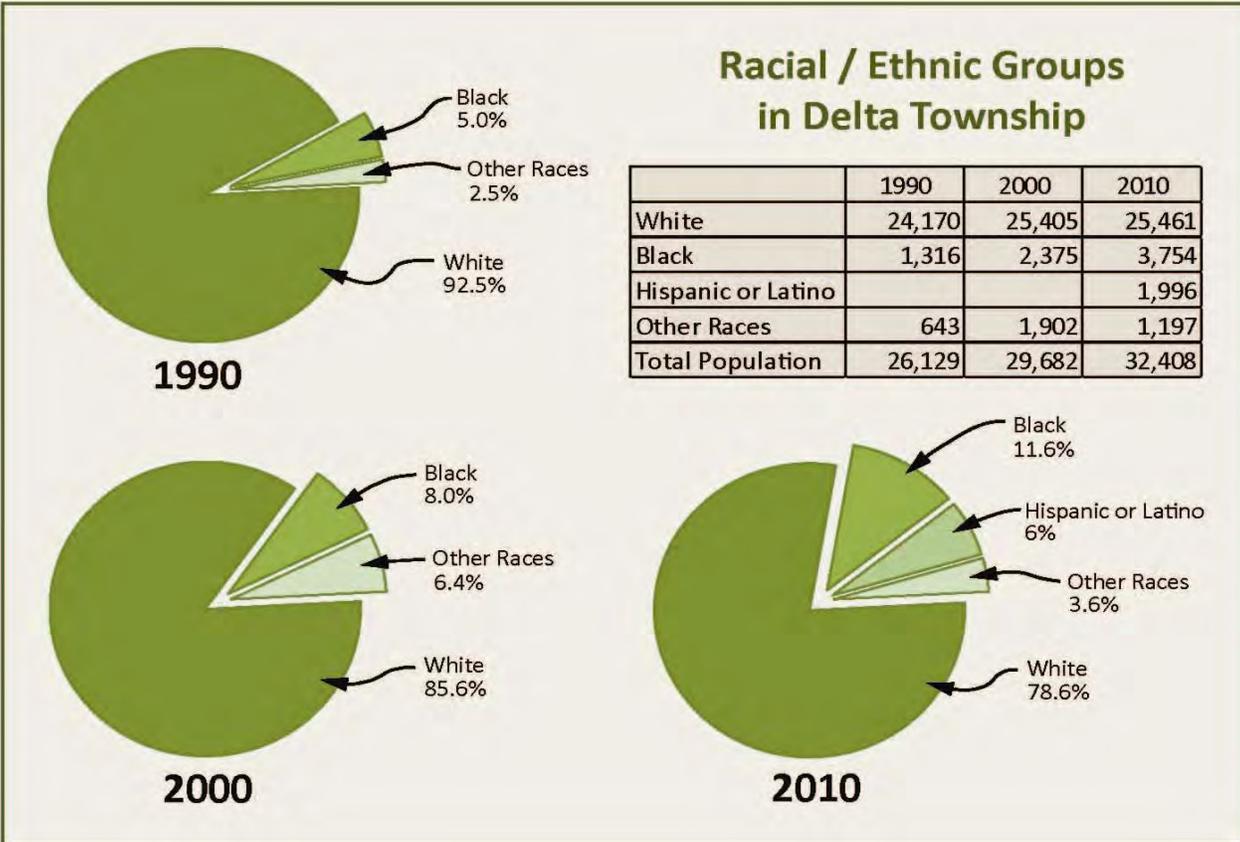
Figure 3-4: Age Distribution Delta Township 1990-2010



Based on information extrapolated from Figure 3-4, the median age of the Township’s population has consistently increased over the past two decades. The Township’s aging population coincides with the nation-wide trend of the “baby-boom” generation reaching retirement age. The aging of the population supports the fact that people are living longer, a factor that has planning implications for society and families alike. The implications of the aging population have yet to be fully appreciated, however the need for additional community resources for older citizens has become a common challenge facing local governments and agencies.

Figure 3-5 presents information pertaining to Racial/Ethnic Groups in the Township. The percentage of the population identified as white steadily declined in the 1990 to 2010 period while the black population doubled in the period.

Figure 3-5: Racial & Ethnic Groups in Delta Township 1990-2010



Housing

As depicted in Figures 3-6 and 3-7 on the following page, Delta Township, like most other communities and the State of Michigan (Meridian Township being an exception) has experienced a decline in the size of households for the past 30 years. The economic downturn which began on or about 2008 in the State of Michigan is expected to result in an increase in larger sized households in the future as people move in with other people and less income results in the formation of fewer households.

The following factors contribute to a decline in the size of households being experienced in Delta Township:

- Creation of more single person households
- Creation of more single parent households
- Fewer children per family
- Women advancing their careers and delaying child rearing
- Couples getting married later in life
- People living longer

Table 3-6: Average Household Size, Persons Per Household

Community	1990	2000	2010
Delta Township	2.52	2.33	2.26
Meridian Township	2.49	2.36	2.67
City of Lansing		2.39	2.33
City of East Lansing		2.22	2.23
Eaton County	2.69	2.54	
Tri –County Region		2.48	2.42
State of Michigan	2.66	2.56	2.49

Source: US Census Bureau



Table 3-7: Household Characteristics, Delta Township

Households	2000	2010	% Change
Total Households	12,559	14,201	13.1
Average Household size	2.33	2.26	-3.0
Average Family size	2.92	2.89	-1.0
Family Households	8,075	8,572	6.2
Family Households with own children under 18	3,568	3,546	-3.1
Female household no husband present	1,177	1,556	32.2
Non-family Households	4,484	5,629	25.5
Householder living alone	3,697	4,694	27.0
Householder 65 years+	1,136	1,607	41.5

Source: US Census Bureau



COMMUNITY PROFILE

Table 3-8: Housing Units 1980 – 2010

	1980	1990	2000	2010
Total Units	8,691	10,757	13,112	15,186
Occupied Units	8,347	10,250	12,559	14,201
% of Total	96.0	95.2	95.8	93.5
Owner-Occupied Units	5,578	6,849	8,071	9,080
% of Occupied	66.8	66.8	64.3	63.9
Renter-Occupied Units	2,769	3,401	4,488	5,181
% of Occupied	33.2	33.2	35.7	36.5

Source: US Census

A review of the Delta Township housing stock for the 30 year period preceding 2010 is provided by Table 3-8. Owner occupied units are primarily single family detached homes although this classification can also include attached condominium units. Renter occupied units are typically located in multi-family apartment buildings. Since 1990, the percentage of renter occupied units in the Township has slightly increased with a corresponding decrease in the owner occupied units. Delta Township initiated a rental housing licensing program for residential units in 2007, which has revealed increases in the number of single family homes being converted from an owner occupied to renter occupied status.



Table 3-9 Age of Housing Stock by Decade Built In Delta Township

Decade Built	# of Dwelling Units	% of Total*
1939 or earlier	533	3.7%
1940-1949	328	2.3%
1950-1959	1,028	7.3%
1960-1969	2,615	18.5%
1970-1979	3,402	24.1%
1980-1989	2,851	20.2%
1990-1999	1,820	12.9%
2000-2009	1,548	11.0%

Source: U.S. Census, Delta Twp Building Division Records

* These figures do not account for demolitions.



Table 3-9 illustrates that as of 2010, approximately 2/3 of Delta Township's housing stock was built in the 1960 to 1989 period. A decline in the number of housing units built since 1990 is resulting in an "aging" of the Township's housing stock.

Like other communities in the Greater Lansing Area, the largest component of Delta Township’s tax base is attributed to residential land uses. Of the communities analyzed in Table 3-10, Delta Township had the largest percentages of State Equalized Tax Values in the commercial & industrial tax categories. The Township’s tax base is more diverse than other communities in the area due to the significance of the Township’s industrial & commercial components. It’s anticipated that the residential classification will continue to represent the largest component of the Township’s State Equalized Value for the 20 year planning period.

Table 3-10: Components of State Equalized Values, 2010

Community	Agricultural	Commercial	Industrial	Residential	Developmental
Delta Twp	0.3%	32.8%	5.8%	60.4%	0.7%
DeWitt Twp	2.7%	15.9%	0.7%	78.8%	1.9%
Delhi Twp	1.0%	17.8%	3.2%	78.0%	0.0%
City of Lansing	0.0%	30.3%	4.1%	65.6%	0.0%
Meridian Twp	0.1%	24.0%	0.3%	75.6%	0.0%
Eaton County	11.2%	17.8%	3.8%	66.8%	0.4%

Source: US Census, Delta Twp Building Division Records

Table 3-11: Education Attainment—Persons 25 Years and Older as of 2010 Census

Highest Educational Level Attained	Delta Township	Eaton County	Michigan
Less than 9th Grade	2.2%	2.6%	3.5%
9-12 Grade/No Diploma	3.6%	5.2%	8.4%
High School Graduate	20.6%	31.1%	31.5%
Some College or Associate Degree	23.8%	26.5%	23.4%
Bachelors Degree	35.6%	26.2%	23.6%
Graduate/Professional Degree	14.2%	8.4%	9.6%

Source: 2006-2010 American Community Survey 5-Year Estimates; US Census

Typically a person’s employment is related to the level of education which they have received. Generally persons with advanced education levels can command higher salaries and improved employee benefits. Table 3-11 depicts the educational attainment of Delta Township, Eaton County, and State of Michigan residents for 2010. As of 2010, Delta Township had a significantly higher percentage of residents with a college degree than Eaton County or the State of Michigan.

Table 3-12 illustrates employment by industry for various sectors. A review of the employment data indicates that the Delta Township workforce is generally reflective of the Eaton County and State of Michigan employment sectors with the exception that the Township has lesser employees in the Agriculture category and more employees in the Government category. The Township's close proximity to the State Secondary Complex in Windsor Township and the Capital complex in downtown Lansing likely account for the large number of government employees. The Township's largest employment sector is the service category which is also the largest sector for the County and State.

Table 3-12 Employment By Industry			
	Delta Township	Eaton County	Michigan
Agriculture, Forestry, Fishing, Construction and Mining	474* 12.1%	3,301 6.2%	285,251 6.6%
Manufacturing (durable and non-durable)	1,993 12.1%	8,296 15.6%	770,715 17.6%
Transportation and Public Utility	526 3.2%	2,114 4.0%	181,648 4.2%
Wholesale Trade	365 2.2%	1,374 2.6%	122,378 2.8%
Retail Trade	1,693 10.3%	5,734 10.8%	507,530 11.6%
Fire, Insurance, Real Estate (F.I.R.E.)	1,409 8.5%	3,931 7.4%	250,855 5.7%
Information	165 1.0%	572 1.1%	82,395 1.9%
Service	7,600 46.2%	22,394 42.1%	3,007,412 45.9%
Government/Public Administration	2,258 13.7%	5,401 10.2%	164,815 3.8%
TOTAL	16,483	53,117	4,369,785
<i>*Construction Data Only</i>			
Source: 2006-2010 American Community Survey 5-Year Estimates: US Census			

Table 3-13 provides Median Household Income data for the 1990 to 2010 period for Delta Township as well as Eaton County and the State of Michigan. While median incomes in Delta Township have traditionally been higher than Eaton County and the State of Michigan, the Township's median incomes have increased at a slower rate than Eaton County over the past twenty years.

Table 3-13: Median Income (Per Household)			
Median Income	1990	2000	2010
Delta Township	\$42,727	\$52,711	\$60,565
Eaton County	\$35,734	\$49,588	\$54,885
Michigan	\$36,652	\$44,667	\$48,432
Source: 2006-2010 American Community Survey 5-Year Estimates; US Census			

INFRASTRUCTURE

Sanitary Sewer Service

The urbanized areas of Delta Township are served by a sanitary sewer system while the rural areas utilize on-site wastewater disposal systems consisting of septic systems and drain fields. The areas served by the sanitary sewer system include most of the area east of I-69 and I-96, and all of the area north of I-496, and south of the northern course of the Grand River. The availability of sanitary sewer service west of I-69 and I-96 is concentrated primarily in residential subdivisions along St. Joe Highway, Willow Highway, Upton Road, Broadbent Road and West Saginaw. Map 3-1 illustrates the Sanitary Sewer Service Area in Delta Township as of 2012.

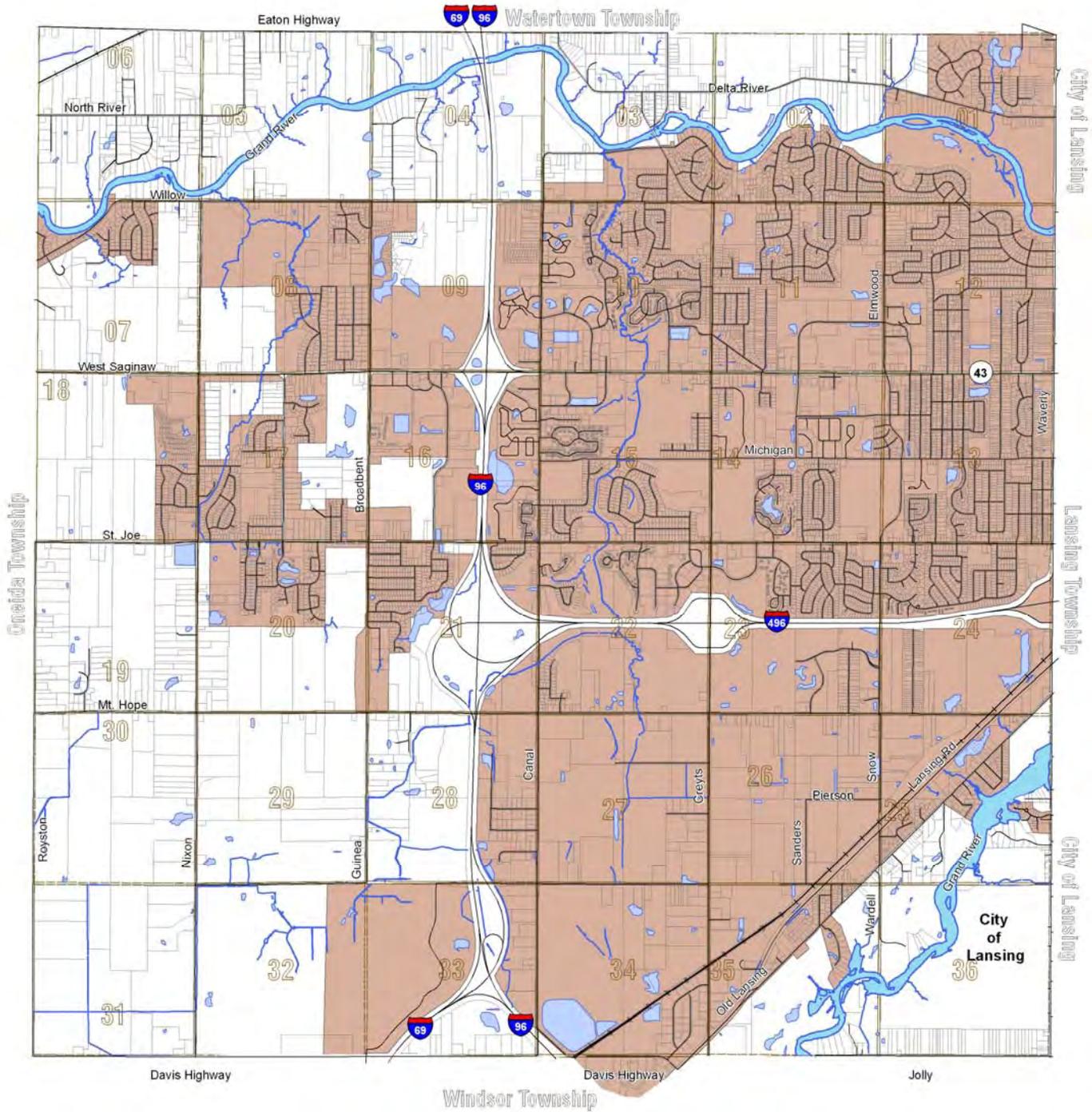
The Township's sanitary sewer system collects and transports sewage to the Wastewater Treatment Plant located on Willow Highway east of Canal Road. A network of sewer pipes, ranging in size from 8" to 36" is used to convey the sewage to the Treatment Plant.

As of **November 2012** the Township had **8,239** residential sewer & water customers (includes single family homes & apartments), **741** sewer & water commercial customers, **17** industrial sewer & water customers and **5** manufacturing sewer & water customers. **The above figures do not include "sewer only" and "water only" customers.**

The capacity of the Wastewater Treatment Plant is 6 million gallons per day with an average daily flow of 4½ million gallons. Thus, the Plant is presently operating at approximately 75% capacity. Typically the Michigan Department of Natural Resources & Environment will mandate that a municipality initiate efforts to expand a Treatment Plant when a facility is operating at 80% capacity. Delta Township has conducted preliminary studies which have estimated the cost of expanding the Treatment Plant at approximately \$37 million (as of 2008) for an additional 2 million gallons of treatment per day with the majority of the cost associated with tertiary treatment. An analysis was also conducted for a satellite plant which had an estimated cost of \$15 million with the advantages of no disruption to the existing Treatment Plant while providing the benefit of flexibility. A portion of Lootens Park has been identified as a possible location for a satellite plant. The economic downturn which commenced on or about 2008 has delayed the need to expand the Treatment Plant.

Significant reductions in flows to the Treatment Plant were experienced beginning at the end of the 1990's as homeowners who were sewer only customers connected to public water permitting them to abandon their water softeners which used significant amounts of water for back flushing which ended up in the public sewers.

In the past decade, discussions have been held regarding the possible extension of Delta Township sanitary sewers into eastern portions of Oneida Township. The sewer extension(s) would serve existing



Map 3-1

2012 Sanitary Sewer Service Area
Delta Township
 Eaton County, Michigan

 Sanitary Sewer Service Area



Data Source: Delta Township
 Map Created May 23, 2012

residential subdivisions and commercial developments that include properties which the Barry-Eaton District Health Department has determined have failed on-site wastewater disposal systems. Preliminary plans have indicated that the sanitary sewer extensions would most likely occur along the West Saginaw and/or Willow Highway corridors.

Water

Delta Township purchases water from the Lansing Board of Water & Light but the Township owns all of the pipe through which the water is distributed and the Township is also responsible for hydrants, meters, and customer billing. The Township has an agreement with the Board of Water & Light to purchase up to 15 million gallons of water per day. This water provides domestic service and fire protection to Township water customers. Four pump stations with pumping capacities of between 475 and 1,300 gallons per minute pump the water through a network of pipes ranging in size between 2" and 20" in diameter. The water is stored in five water tanks with storage capacities of 500,000, 1,000,000, 1,250,000, and two tanks at 2,000,000 gallons.

The distribution of water in the Township is primarily concentrated in areas east of I-69/I-96 although water extensions to western portions of the Township have expanded in recent decades. Rural areas in the Township use groundwater obtained through the use of private wells. Map 3-2 depicts the Water Service Area in Delta Township as of 2012.

The United States Environmental Protection Agency has estimated daily water consumption at 243 gallons for a household of 4 which equates to 61 gallons per person per day (does not include non-home water use). As of 2010 the Township's Accounting Department computed the typical consumption for a residential customer on the Township's Water System at approximately 56 gallons per person per day. (Being 900 cu. ft. for a family of four for a month \times 7.48 gallons/cu. ft. = 6732 gallons divided by family of 4 = 1683 divided by 30 days = 56 gallons per day.)

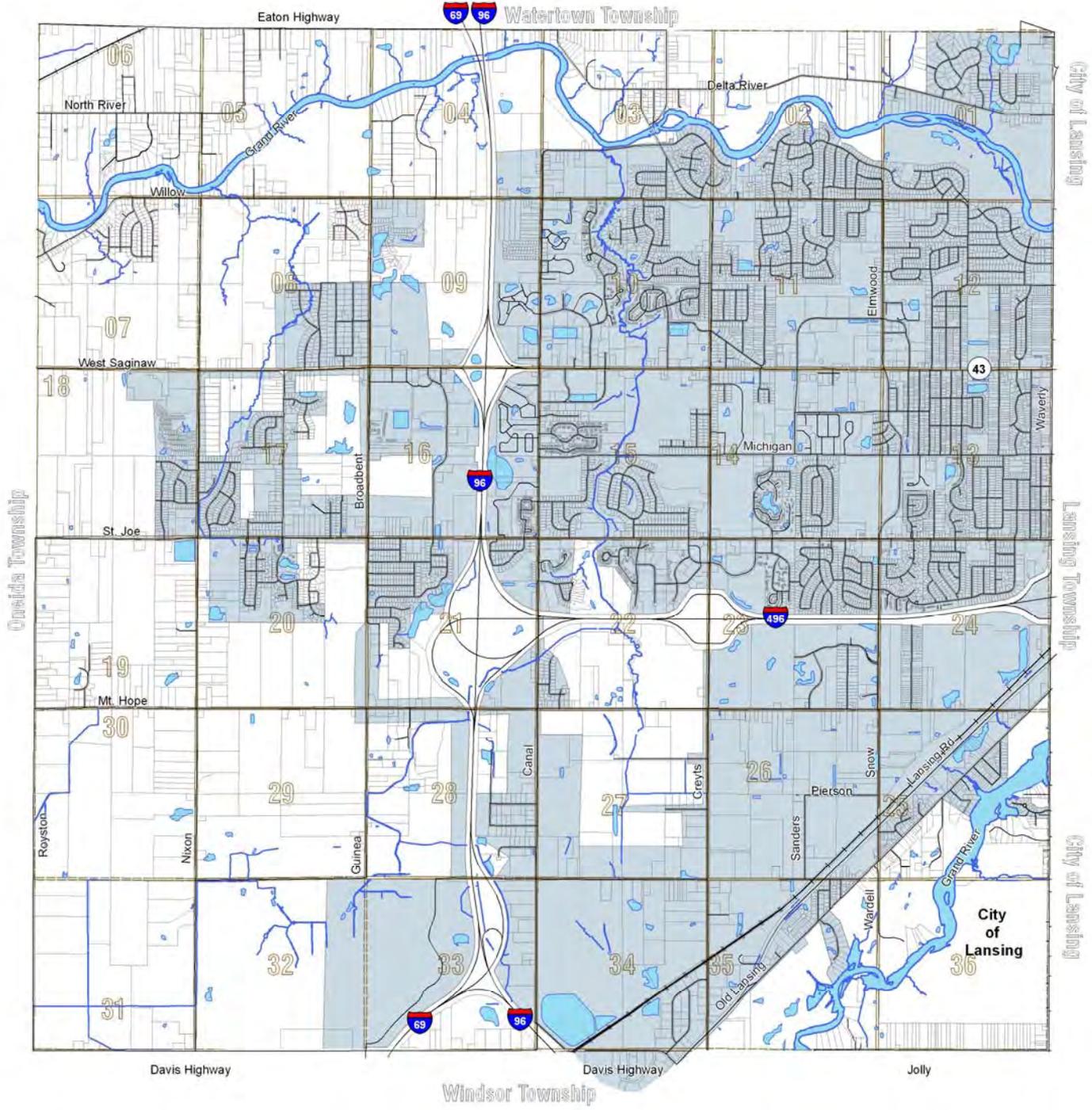
In the past decade water consumption has decreased significantly due to mandatory water saving features imposed by the Federal Government. Efficiencies in industrial operations, particularly at General Motors plants, have also decreased public water consumption in the Township.

Fire Department

The Delta Township Fire Department, founded in 1953, provides fire protection and emergency medical care for Township residents, workers, and visitors as well as providing mutual aid to surrounding communities. The Fire Department is served by three stations described as follows:

Fire Station No. 1

Fire Station No. 1 is located at the northwest corner of the Administration Drive/Canal Road intersection. Built in 2003, this building houses the Fire Department's administrative offices, a training facility, the Emergency Operations Center and the living and sleeping quarters for full-time personnel. Fire Station No. 1 is a full-time station which is well located to ensure quick access to the I-96/I-69 freeway as well as higher density residential housing and retail areas.



Map 3-2
2012 Water Service Area
Delta Township
Eaton County, Michigan



Data Source: Delta Township
 Map Created May 23, 2012

Fire Station No. 2

Fire Station No. 2 is often referred to as the Millett Station because of its location on Old Lansing Road. The Station was built in 1979 and houses an engine and other equipment but it is not currently staffed with fulltime personnel.

Fire Station No. 3

Fire Station No. 3 was built in 1990 on Snow Road across from the Waverly High School. Fire Station No. 3 is a full-time station housing, three bays, offices, and living and sleeping quarters. This Station serves the eastern portions of the Township.

The Fire Department typically has five administrative staff, which includes the Fire Chief, Deputy Chief, Fire Inspector, Administrative Assistant and EMS Secretary, thirty full-time firefighter/paramedics and twelve part-time firefighters.

In 2011 the Fire Department responded to 3,429 Emergency Medical Services (EMS) alarms and 1,103 fire alarms. The Fire Department also conducted more than 443 hours of fire inspections in 2011.

In January 2012, a Fire & Ambulance Shared Services Agreement was executed between Delta Township and the Looking Glass Regional Fire Authority which includes Eagle & Watertown Townships to the northwest. The agreement will permit the municipalities to share equipment, firefighters, and EMS services within the geographic boundaries of the three Townships.

Police Protection

Delta Township doesn't have a police department, instead it contracts for service with the Eaton County Sheriff's Office. The current 10 year contract which expires in 2014 mandates the staffing & vehicle levels and stipulates that the Township provide a sub-station for the deputies. The deputies assigned to Delta Township are commonly referred to as the Delta Patrol.

The Sheriff's Office sub-station is located on Administration Drive adjacent to Fire Station No. 1. It was originally built in 1984 and expanded in 1991. The sub-station is now 7,200 sq. ft. in size. A 2007 *Space Needs & Building Condition Analysis* was prepared by an architectural firm for the sub-station which stated that "the building is both physically and functionally obsolete and that trying to renovate and expand would not be cost effective, nor would it allow for an efficient design that would benefit Delta Patrol operations". The findings of the Analysis revealed that a new facility of approximately 18,400 sq. ft. would be needed to house the Delta Patrol efficiently for the next 20+ years. The Analysis indicated that the 18,400 sq. ft. building could be accommodated on the existing site and provided the option of building the entire facility at one time or in two phases.

As of July 2011 the Delta Patrol consisted of 1 Lieutenant, 5 Sergeants, 4 Detectives, and 24 Deputies. In 2010 the Delta Patrol responded to 16,500 service calls and 2,127 traffic crashes.

The Eaton County Sheriff's Office County Patrol Section, adjacent municipal police forces, and the Michigan State Police, can provide additional police protection to Delta Township in the case of an emergency requiring additional resources.

Schools

Delta Township is served by four school districts being Grand Ledge, Waverly, Lansing, and Holt. Map 3-3 depicts the boundaries of the various school districts and the locations of school buildings in the Township.

Approximately two-thirds of the Township is served by the Grand Ledge School District. The Grand Ledge Schools located in the Township are: Delta Center Elementary School (June 2011 enrollment of 553), Willow Ridge Elementary School (June 2011 enrollment of 484), and Hayes Middle School (June 2011 enrollment of 761). The total enrollment in the Grand Ledge School District was 5,020 as of 2011.

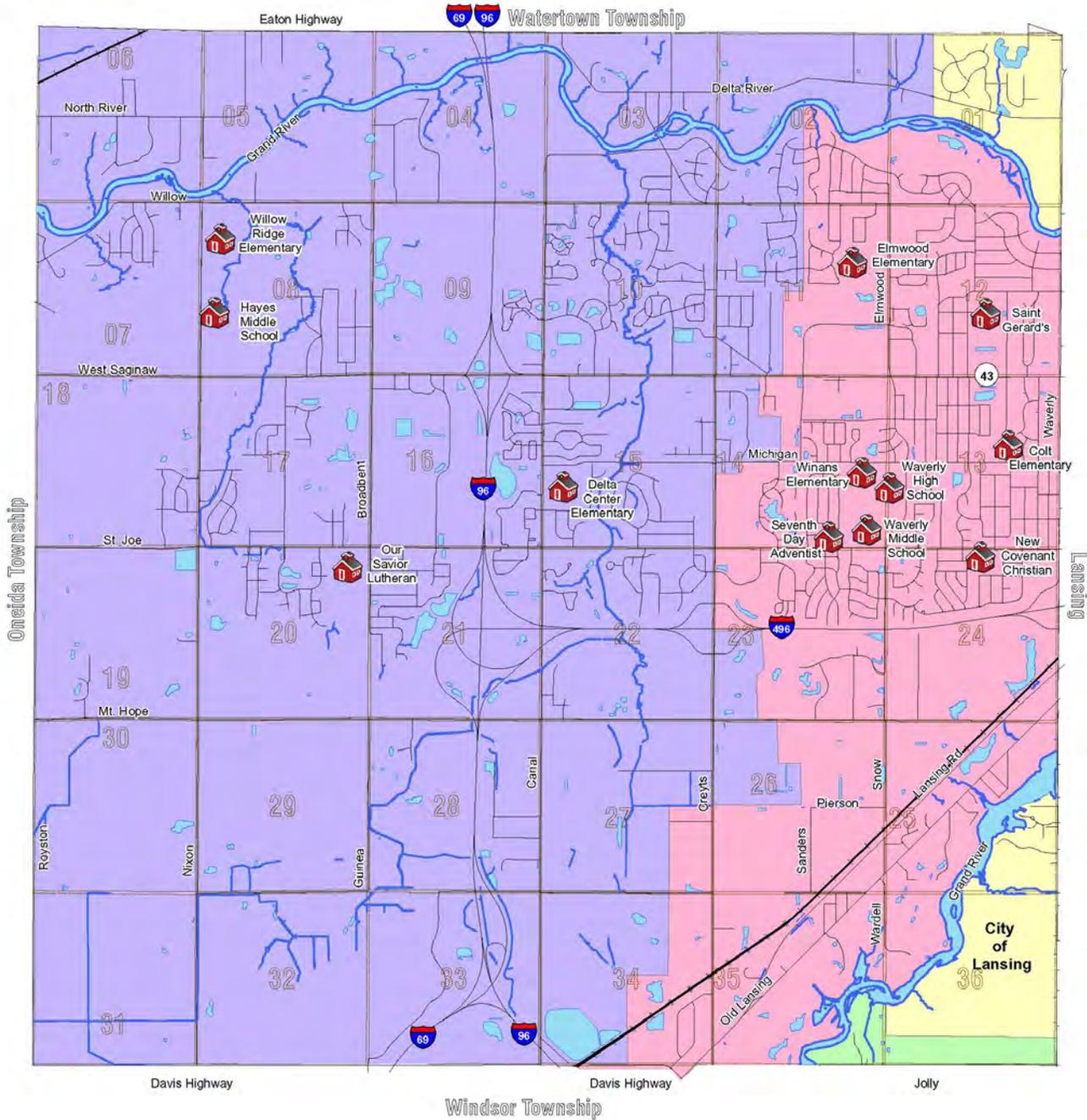
In 2005 the Grand Ledge School District purchased a 123 acre parcel on the south side of St. Joe Highway between Nixon Road and Royston Road. School District representatives have not indicated any specific future uses for the site which is large enough to accommodate a school facility. The majority of the vacant residentially zoned land in the Township is located in the Grand Ledge School District.

Approximately one-third of the Township is served by the Waverly School District. The Waverly Schools located in the Township are: Elmwood School (2010 enrollment of 201), Colt Elementary School (2010 enrollment of 329), Winans Elementary School (2010 enrollment of 223), Waverly Middle School (2010 enrollment of 521), and Waverly High School (2010 enrollment of 1,060). Total enrollment in the Waverly School District was 2,982 as of 2010.

There is little vacant, residentially zoned land remaining in the Waverly School District in Delta Township.

Only a fraction of the Township is served by Holt Public Schools and Lansing Public Schools, neither of which have school buildings located within the Township.

There are four private schools located in Delta Township as follows: New Covenant Christian, Our Savior Lutheran, St. Gerard's, and Seventh Day Adventist.



Map 3-3

0 2,500 5,000 Feet

**School District
Boundaries and Schools
Delta Township
Eaton County, Michigan**

- Grand Ledge Public Schools
- Holt Public Schools
- Lansing Public School Distri
- Waverly Community Schools



Data Source: Delta Township
Map Created May 23, 2012

Colleges

Great Lakes Christian College is a four-year Christian college located at the southeast corner of the Creyts/Willow intersection within Delta Township. The college has a 47 acre site occupied by classrooms, a gymnasium and student dormitories. As of 2011 the College's enrollment was 260.

The West Campus of Lansing Community College is located on Cornerstone Drive, just west of Snow Road. The Campus houses the Michigan Technical Education Center (M-TEC) and a Technical Training Center. Construction of the campus facilities was completed on the 290,536 sq. ft. facility in 2004. As of 2010, Lansing Community College was the third largest community college in Michigan serving more than 30,000 students a year.

Library

The Delta Township District Library is an independent authority, separate from Township Government, and governed by an appointed library board. The Library offers a range of services from adaptive technology, language learning, computer classes, educational and entertaining programs for all ages, and access to a statewide databases and resources. The Library, located in a 30,000 sq. ft. LEED Silver certified building at 5130 Davenport Drive, was constructed in 2008. The Library offers over 60,000 items including books, movies, eBooks, and audio books, offers public interest internet access on over 30 computers, and houses collections dedicated to women and local history.

Solid Waste

Delta Township presently doesn't offer solid waste collection as a municipal service. Private waste haulers contract with households, businesses and industry to pick up their solid waste, typically on a weekly basis. The majority of the solid waste in Delta Township is transported to the Granger Landfill to the north in Watertown Township. In 2012, representatives of Granger Recycling estimated that the projected "life" of the Watertown Township landfill was 25 years and the "life" of the Wood Street facility in Dewitt Township was 60 years.

Chapter 4 Transportation

TRANSPORTATION

This chapter will provide a general overview of all elements related to transportation in Delta Township including roads and highways, public transit services, and air & rail transportation. A discussion of complete streets is also provided. Chapter 9 provides a review of Non-Motorized Transportation.

Roads & Highways

The street system within the Township can generally be divided into four classifications:

Freeways: Freeways provide state-wide linkage to other communities with restricted access points. Examples of freeways in the Township include I-496, I-96 and I-69.

Arterials: Arterial roads are built to carry high traffic volumes and provide connections to locations outside of the Township. Arterial road examples include Canal and Creyts Roads.

Collectors: Collector Roads typically collect traffic from low volume streets and channel it to higher volume roads. Mall Drive West and Marketplace Boulevard are collector streets.

Local Streets: Local streets are typified by subdivision streets which provide direct access to individual residential properties. Local streets may permit on-street parking and are designed for low volumes. The majority of the streets within the Township fall within the local streets classification. Mar-Moor Drive and Richard Street are examples of local streets.

Location	Average Daily Traffic
I-69 N of Willow Hwy	51,100
I-69 S of St. Joe Hwy	57,300
I-496 at Snow Road	30,600
M-43 W. Saginaw at Elmwood Rd	22,000
M-43W. Saginaw btw Nixon & Broadbent	18,300
Lansing Road E. of Creyts Road	6,600
Source: MDOT	

The Michigan Department of Transportation (MDOT) has jurisdiction over freeways in the Township as well as West Saginaw Highway and Lansing Road. The Eaton County Road Commission (ECRC) has jurisdiction of the remainder of the public roads in the Township. The Ingham County & Eaton County Road Commissions and the City of Lansing share jurisdiction over portions of Waverly Road. Delta Township doesn't have jurisdiction over any roads in the Township. There are a number of private roads in the Township which primarily provide access to residential properties.

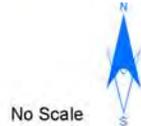
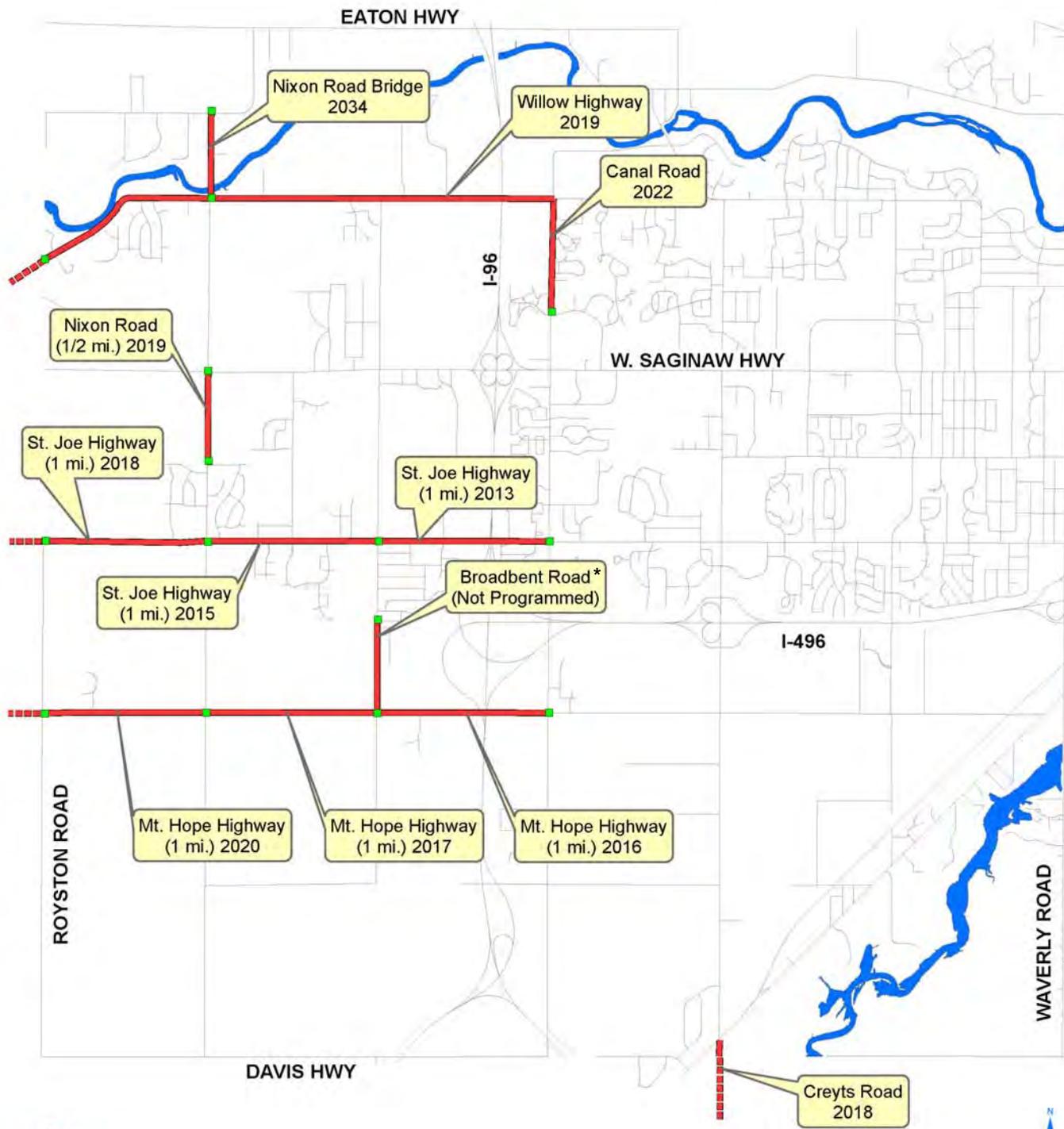
Table 4-1 provides daily traffic volumes for freeways and major trunklines in Delta Township.

As of 2010 the road network in the Township occupied approximately 2,400 acres and consisted of more than 175 miles of roads. It's estimated that approximately 165 miles of the Township's road network is under the jurisdiction of the ECRC. Approximately 94% of the ECRC roads are paved with 10 miles of gravel roads remaining in the Township. The ECRC has a "satellite" maintenance garage on Sanders Road serving Delta, Oneida, Benton & Windsor Townships.

Major Road Projects

In the 1992 – 2009 period the Delta Township Board periodically adopted a Road Improvement Program which identified and prioritized major road improvements for the future. The road improvement priorities identified by the Township Board mirror projects identified in the TCRPC Regional Transportation Plan. The 2035 Regional Transportation Plan was adopted by the TCRPC on January 21, 2010 and the Township's road priorities were adopted by the Township Board on August 17, 2009. All of the projects are located within the Federal Aid to Urban Boundary for the Tri-County Region and thus eligible for federal funding. Most road projects will be financed by the Federal Surface Transportation Program (STP) monies although assessment districts may be used in non-residential areas. Typically STP monies finance 80% of the project cost and a local "match" of 20% is required. Figure 4-1 depicts the Major Road Projects planned for the 2010 to 2035 period.

FIGURE 4-1
MAJOR ROAD PROJECTS



*Broadbent Road is not included in the TCRPC 2035 Regional Transportation Plan.

High Priorities (2010-2020)

Priority #1: St. Joe Highway (Canal to Broadbent)

Project Length: 1 mile

Improvements: Widen Road from 2 to 3 lanes with paved shoulders

Note: The widening of the St. Joe Hwy. Bridge over I-96 is a separate MDOT project, see page 49.

Estimated Cost: Total: \$1,200,000, Local Match: \$300,000

Purpose(s): Improve traffic safety & carrying capacity

Programmed for 2013 in 2035 Regional Transportation Plan

Priority #2 : St. Joe Highway (Broadbent to Nixon)

Project Length: 1 mile

Improvements: Widen from 2 to 3 lanes and add paved shoulders

Estimated Cost: \$1,200,000, Local Match: \$300,000

Purpose(s): Improve traffic safety & carrying capacity.

Programmed for 2015 in 2035 Regional Transportation Plan

Priority #3: Mt. Hope Highway (Canal to Guinea)

Project Length: 1 mile

Improvements: Widen from 2 to 3 lanes & add paved shoulders

Estimated Cost: Total: \$1,200,000, Local Match: \$300,000

Purpose(s): Improve traffic safety & carrying capacity

Programmed for 2016 in 2035 Regional Transportation Plan

Priority #4 : Mt. Hope Highway (Guinea to Nixon)

Project Length: 1 mile

Improvements: Widen from 2 to 3 lanes and add paved shoulders

Estimated Cost: \$1,200,000, Local Match: \$300,000

Purpose(s): Improve traffic safety & carrying capacity

Programmed for 2017 in 2035 Regional Transportation Plan

Priority #5 : St. Joe Highway (Nixon to Royston)

Project Length: 1 mile

Improvements: Widen from 2 to 3 lanes and add paved shoulders

Estimated Cost: \$1,200,000, Local Match: \$300,000

Purpose(s): Improve traffic safety & carrying capacity

Programmed for 2018 in 2035 Regional Transportation Plan

Priority #6 : Creyts Road (Lansing Road to Dimondale Village limits)

Project Length: 2 miles, 500 ft. in Delta Township

Improvements: Widen from 2 to 3 lanes

Estimated Cost: Total: \$3,400,000, Local Match: \$680,000*

Purpose(s): Improve traffic safety & carrying capacity

Programmed for 2018 in 2035 Regional Transportation Plan

Priority #7 : Nixon Road (Rockbridge to M-43)

Project Length: .60 miles

Improvements: Widen from 2 to 3 lanes and add paved shoulders

Estimated Cost: \$800,000, Local Match: \$160,000

Purpose(s): Improve traffic safety & carrying capacity

Programmed for 2019 in 2035 Regional Transportation Plan

Priority #8 : Willow Hwy. (Canal to M-100)

Project Length: 4 miles, 3 miles in Delta Township
Improvements: Widen from 2 to 3 lanes, add bike lanes & sidewalk
Estimated Cost: Total: \$4,800,000, Local Match: \$960,000*
Purpose(s): Improve traffic safety & carrying capacity
Programmed for 2019 in 2035 Regional Transportation Plan

Priority #9 : Mt. Hope Highway (Nixon to M-100)

Project Length: 2 miles (1 mile in Delta Township)
Improvements: Widen from 2 to 3 lanes and add paved shoulders
Estimated Cost: \$2,400,000, Local Match: \$480,000
Purpose(s): Improve traffic safety & carrying capacity
Programmed for 2020 in 2035 Regional Transportation Plan

**Projects which appear with an asterisk are partially located in a neighboring jurisdiction which is assumed to be responsible for providing a portion of the Local Match monies.*

Lower Priorities (2021 and beyond) (Not Prioritized)

Canal Road (Delta Commerce Drive to Willow Highway)

Project Length: .64 miles
Improvements: Widen from to 3 lanes, add bike lanes & sidewalk
Estimated Cost: Total: \$800,000, Local Match: \$160,000
Purpose(s): Improve traffic safety & carrying capacity
Programmed for 2022 in 2035 Regional Transportation Plan

Nixon Road Bridge over the Grand River

Project Length: Project would include ½ mile extension of Nixon Rd. from Willow Hwy. to North River Hwy.
Improvements: Construction of a new 2 lane bridge and roadway
Estimated cost: \$5,600,000, Local Match: \$1,100,000
Purpose(s): Improve access to westernmost Delta Township
Programmed for 2034 in 2035 Regional Transportation Plan

Broadbent Road Extension (Wheatdale Lane to Mt. Hope)

Project Length: .50 miles
Improvements: Extend existing 2 lane paved road
Purpose(s): Improve north-south access in western Delta Township
This project is not included in the 2035 Regional Transportation Plan

Projects in 2035 Regional Transportation Plan Not Under the Jurisdiction of the ECRC

St. Joe Highway Bridge @ I-69/I-96 (MDOT Jurisdiction)

Improvements: Widen bridge, estimated cost = \$2.0 million, Programmed for 2033 in 2035 Plan

Snow Road Bridge @ I-496 (MDOT Jurisdiction)

Improvements: Widen from 2 to 4 lanes & add non-motorized pathways, estimated cost = \$1,000,000, Programmed for 2035 in 2035 Plan

Waverly Road from Jolly Road to Moores River Dr. (City of Lansing jurisdiction)

Improvements: Add center turn lane, estimated cost = \$3,000,000, Programmed for 2025 in 2035 Plan

Minor Road Projects

Not Included in the 2035 Regional Transportation Plan

The following roads are recommended in order to provide connectivity in specific areas of the Township. It's assumed that these roads will be constructed as public streets by private parties at the time adjacent properties are developed.

Section 9 North-South Road

Construction of a new north-south road on the north side of M-43, one mile to Willow Highway. The north "leg" of the road presently exists at the Marketplace/M-43 intersection. It's assumed that the north-south road would connect to Sequoia Drive in the Shadow Glen Subdivision.

Sections 9 & 16 East-West Roads

Construction of new east-west roads in the interior of sections 9 and 16, west of I-96. The interior road in section 16 would extend from Broadbent Road to Marketplace Boulevard. The interior road in section 9 would extend from Broadbent Road to the above mentioned north-south road.

Section 14 East-West Road

Construction of a new east-west road between Creyts Road and Cherbourg Drive.

Ena Drive Extension

Extension of Ena Drive from Rickle Street to the north, possibly as far north as Mt. Hope Highway.

Complete Streets

In the past, suburban communities such as Delta Township relied on the automobile as the principal means of transportation, the focus of infrastructure investment and a dominant factor in determining land use polices. Transportation modes including walking, cycling and mass transit were often given little if any consideration.

The usage of the term “Complete Streets” dates to 2003 when bicycling advocates used it as a replacement for the term “routine accommodation”. In 2010 the U.S. Department of Transportation issued a policy statement declaring its support for bicycle & pedestrian accommodations in federal-aid transportation projects. As of 2011 23 states had adopted some form of Complete Streets legislation.

Legislation

In 2010 the Michigan Legislature adopted Public Acts 134 & 135 pertaining to Complete Streets which are summarized as follows:

Public Act 134: This Act constituted an amendment to the Michigan Planning Enabling Act which expanded the definition of “street” to include all legal users as well as expanding the elements which may be included in a master plan to address all forms of transportation and their interconnectivity. Act 134 also specified that transportation improvements be appropriate to their context and implemented in cooperation with the appropriate road agencies.

Public Act 135: Language in PA 135 indicates that a Complete Street provides “appropriate access to all legal users in a manner that promotes safe and efficient movement of people and goods whether by car, truck, transit, assistive device, foot or bicycle. The Act mandated that the State Transportation Commission adopt a complete streets policy for the Michigan Department of Transportation (MDOT) by August 2012. The Act also charged the Commission with the responsibility of developing a model local Complete Streets policy that may be adopted by local units of government.

Elements of a Complete Street

The National Complete Streets Coalition defines a Complete Street as those that are designed and operated to allow all users, not merely motorists, to use them safely. The specific design elements of a Complete Street typically include:

- Pedestrian infrastructure: sidewalks, crosswalks, and pedestrian signals.
- Bicycle accommodations: dedicated bike lanes or wide shoulders, bike racks on busses.
- Mass transit accommodations: designated bus stops, bus benches & shelters.

It should be acknowledged that there isn't a singular design to achieve the ideal Complete Street since each transportation corridor is unique and the improvements should respect the natural & man-made environment in which they're located. Act 135 states that a Complete Street be "sensitive to the local context and recognize that needs vary according to urban, suburban and rural settings".

Benefits of Complete Streets

The following are often identified as benefits of providing Complete Streets in a community:

- Improved safety for pedestrians & bicyclists. Approximately 5,000 pedestrians and bicyclists die each year on U. S. roads.
- Provision of alternatives to reliance on private autos. Complete Streets designed to make walking & bicycling more attractive could convert short auto trips to other transportation modes.
- Improved health by increased walking & cycling opportunities. More than half of Americans are overweight and in need of daily physical activity.
- Accommodations for Special Populations. Complete Streets provide mobility options for those who don't own a private vehicle, children, older adults, people with disabilities and low-income persons.
- Increased opportunities for social interaction.

Complete Streets Action Steps

Delta Township officials may wish to consider adoption of the following action steps as a means to better provide for Complete Streets in the community:

- Dialogue with the Eaton County Road Commission. Approximately 94% of the streets in Delta Township are under the jurisdiction of the ECRC. Therefore, discussions between ECRC and Delta Township officials must precede the adoption of a Complete Streets Policy. The Michigan Transportation Fund Act 51 mandates that the ECRC use 1% of state transportation funds received for non-motorized transportation improvements.
- Input from residents and businesses. What elements of Complete Streets are most desired by the Township's stakeholders?
- Acknowledgement of past Complete Streets actions. Delta Township officials have taken a number of actions supportive of Complete Streets including the following:

- Adoption of the 2010 Strategic Plan which advocates expanded public transit service, make Quality of Life issues a high priority for planning efforts, review Township ordinances to update as necessary and promotion of sustainability efforts.
- Adoption of 2010 Sidewalk Plan which provides a prioritized list of sidewalk projects.
- Adoption of the 2005 Non-Motorized Transportation Plan. The Plan provided a long term vision for non-motorized improvements including recommendations for bike lanes along specific roadways, shared use path locations, road diets (conversion of 4 lane roadways to 3 lanes with bike lanes provided), and future trail connections to other communities such as the Cities of Lansing and Grand Ledge.
- Consideration of a Complete Streets Policy. Act 135 defines a Complete Streets policy as “a document that provides guidance for the planning, design and construction of roadways or an interconnected network of transportation facilities”. The City of Lansing, Michigan was the first community in the State of Michigan to adopt a Complete Streets Policy. The Michigan Complete Streets Coalition provides assistance to communities in drafting Complete Streets Policies.
- Provision of bike lanes. In 2006-2008 Willow Highway between Elmwood & Canal Road was re-constructed to three lanes which provided for sidewalks & bike lanes along both sides of the roadway. This road design could serve as a model for future road projects in the Township if local conditions permit this design.
- Actively participate in programs that may provide financing to achieve Complete Streets. Such programs would include Safe Routes to Schools, Michigan Natural Resources Trails Fund, and Congestion Mitigation Air Quality Grants.
- Acknowledge the Futuring Session results pertaining to Transportation. Participants were asked: “Which one of the following is your highest Township Transportation Priority?” The number one response (49%) was: “Provide more Complete Streets that can safely accommodate motorized & non-motorized vehicle and pedestrians.”
- Scrutinize future transportation improvements. Consideration should be given to the entire right of way to best provide a safe mode of transportation for everyone regardless of their age, physical mobility, or income.

Summary

It's acknowledged that in spite of the many benefits of Complete Streets, they are not the sole answer to addressing traffic congestion, health & safety issues, and other transportation related problems facing local officials. Complete Streets should be considered as one of the many tools available to communities to improve their quality of life. During the past decade Delta Township officials have adopted a Non-Motorized Transportation Plan, constructed miles of sidewalks, and installed trails in Township parks, all of which foster the provision of Complete Streets.

Mass Transit

EATRAN

The Eaton County Transportation Authority (EATRAN), in operation since 1980, provides transportation service to county residents on an on-call, as needed basis. EATRAN operates from 6:00 a.m. to 6:00 p.m. with no weekend service provided. Residents are required to arrange a pick up and drop off time and location with EATRAN 24 hours prior to the service. EATRAN also provides a commuter express service to downtown Lansing for Eaton County residents. In 2004 EATRAN served 217,600 passengers. In 2011 EATRAN provided 153,831 rides.

EATRAN's millage rate has remained at .25 mills since 1986 and the millage is renewed every five years. As of 2011 EATRAN's funding sources were: Federal Funds = 18%, State Funds = 36% and Local Funds = 46% (11% fare boxes & 35% millage).

CATA

The Capital Area Transportation Authority (CATA) was formed in 1972 and serves communities in the Lansing Metropolitan area including Michigan State University. Although Delta Township is not a member of CATA, routes 3 and 12 serve the eastern portions of the Township. CATA offers fixed route service which picks up riders at bus stops and follows a regular route with scheduled times.

CATA had 11.82 million passengers in 2011 and a daily ridership of 51,500 in the first quarter of 2011. As of 2009, 52% of CATA's operating revenue came from local sources, 26% from state sources and 22% from fares and other revenues. At the present time (2011) passengers boarding a bus on Route 3 in Delta Township pay a one-way fare of \$2.50.

CATA's Route 3, labeled Willow-Lansing Mall, begins at CATA's downtown Lansing Transportation Center, enters the Township at the Waverly/West Saginaw intersection and then generally proceeds along West Saginaw to the Lansing Mall with a return trip to downtown Lansing.

CATA's Route 12, labeled West Michigan-Waverly, also commences at the Transportation Center and provides service along Waverly Road between Michigan Avenue and St. Joe Highway with a turn-around point at Waverly Plaza (Home Depot).

Air Transportation

The Capital Region International Airport is located in DeWitt Township less than one mile northeast of Delta Township. The Airport, encompassing 1,600 acres, is owned and operated by the Airport Authority. The Airport provides commercial and general aviation services to the Greater Lansing Area. The Airport was originally developed in 1928 with the first terminal building constructed in 1940.

As of 2011, 358,307 passengers flew to and from the Airport which constituted a 45% decrease since 2000. Extreme competition for passengers is taking place between the Capital Region International Airport, the Detroit Metropolitan Wayne County Airport, Flint's Bishop International Airport and the Gerald R. Ford International Airport in Grand Rapids.

In 2008 Capital City Airport was designated as a U.S. Port of Entry which permitted goods & passengers to clear customs through U.S. Customs. Importing and exporting can be done with local businesses, customs brokers, freight forwarders, and logistics coordinators without traveling to larger, often congested airport hubs in major cities.

In 2011 the Capital City Airport, City of Lansing and DeWitt Township announced the establishment of Lansing Aerotropolis. The Aerotropolis is designed to encourage economic development within a mile of the Airport. The plan includes a 50 year 425 land, tax and services agreement between the City and DeWitt Township.

Several Delta Township hotels provide Park & Fly incentives providing special room rates and shuttle service to the Airport. Businesses and industries in Delta Township can take advantage of their close proximity to the Airport.

An Airport Zoning Ordinance has been adopted which includes a definition and protective measures for the designated Airport Hazard Area which includes properties in Delta Township. The Ordinance specifies off-airport height limits which are necessary in order to protect the navigable airspace surrounding the Airport. Planned Airport improvements, as recommended in the Airport's Master Plan, could have impacts on residential areas in northeast Delta Township in the future.

The Airport's 2006 Master Plan identified four major goals:

- Retain & expand scheduled passenger flights
- Increase charter operations
- Increase corporate & general aviation activities
- Increase cargo activities

The Master Plan refers to long-term improvements at the Airport including the construction of a new terminal building, control tower and runway improvements.

Rail Transportation

The Canadian National Railway Company and CSX Transportation Company operate railroads within Delta Township. The CSX line traverses slightly less than a mile in the far northwest corner of the Township and doesn't provide direct service to the Township. The CN line traverses more than 3 miles of area in the southeastern portion of the Township connecting our community with Port Huron to the east and Chicago to the west. The CN line provides rail service to several industrial properties within the Township. CN operates an Autoport rail shipping facility on a 95 acre site on Davis Highway in Windsor Township immediately south of the Lansing-Delta GM facility.

The closest passenger rail location to Delta Township is the AMTRAK terminal located in East Lansing. AMTRAK 's Blue Water Route, Port Huron to Chicago, provides daily departures. The average train travel time from East Lansing to Chicago is 3½ hours.

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Chapter 5 Community Input

SUMMARY OF COMMUNITY INPUT

Several techniques were relied on to obtain public input in the drafting of the Comprehensive Plan. Public participation opportunities included a Futuring Session, a public opinion survey and public hearings.

Futuring Session

In May 2011 Township staff, with the assistance of Tri-County Regional Planning Commission staff, conducted a Futuring Session at the Township's Administration Building. Participants "voted" their preferences on many issues by using hand-held electronic devices which permitted the results to be reported immediately. The 70+ residents attending the Futuring Session responded to 21 questions covered the topics of housing & neighborhoods, growth & redevelopment, economic development, transportation, environment & sustainability, parks & recreation and public service and utilities. The complete Futuring Session results are available in the attached appendix.

Futuring Session Overview

The following text provides a selected planning related question for each of the six topics posed to the participants at the Futuring Session. (Note: Percentages won't total 100% because more than three responses were provided.)

Housing & Neighborhoods

Which one of the following Smart Growth concepts do you feel would provide the most benefit to Delta Township? (Select one)

- 42% Provide for more walkable neighborhoods
- 27% Preserve open space, farmland and critical environmental areas
- 23% Amend Township regulations to provide incentives for mixed use developments/buildings typified by combining retail & residential uses

Growth & Redevelopment

Which one of the following do you feel is the most important growth issue in Delta Township?

- 41% Amend Township regulations to provide incentives for in-fill commercial redevelopment
- 32% The Township should take a more active role to redevelop properties via purchases of deteriorated structures, building demolition & land-banking
- 15% Limit future strip commercial development on West Saginaw at Broadbent

Economic Development

Which one of the following is your highest economic development priority for Delta Township?

- 42% Fill vacant stores on West Saginaw
- 22% Retain existing businesses
- 19% Recruit new industries to the Township's industrial tract

Transportation

Which one of the following is your highest Township transportation priority?

- 49% Provide more "complete streets" that can safely accommodate motorized & non-motorized vehicles and pedestrians
- 27% Maintain existing roads
- 16% Improve public transit service

Environment & Sustainability

Which of the following environmental protection measures would you like to see the Township adopt?

- 47% Wetlands protection ordinance
- 28% Stormwater protection ordinance
- 16% Tree preservation ordinance

Parks & Recreation

If the Township had the finances to expand their parks & recreational amenities, which one of the following would be your first choice?

- 25% Develop new parks on Township owned, undeveloped land
- 23% Upgrade existing park facilities
- 21% Develop a community recreation center with a pool

Public Service & Utilities

Which one of the following is your highest priority regarding Township utilities?

- 37% Avoid increases in water and sanitary sewer rates
- 30% Expand public water and sanitary sewer service to unserved areas
- 23% Expansion of the Township's wastewater treatment plant

Public Opinion Survey

A Public Opinion Survey was prepared by the Township's Community Development Department and offered on the Township's website as well as a hand-out at Township facilities. The survey provided respondents the opportunity to rate various issues and conditions by multiple choice responses. The survey also provided participants space for written responses on any topic. The Township received more than 100 responses to the Public Opinion Survey. The complete Public Opinion Survey results are available in the attached appendix.

Opinion Survey – Rating of Public Services/Facilities

The Survey provided respondents the opportunity to rate twenty services and facilities offered in Delta Township. Most of the services/facilities were provided by the Township but some services/facilities were provided by Eaton County agencies (Drain Office, Road Commission, EATRAN) and others by regional organizations (CATA). Respondents could choose from multiple-choice responses ranging from “Excellent” to “Very Poor”.

Of the twenty services/facilities presented, participants gave a “good” or “excellent” rating over 50% for eleven categories. Figure 5-1 provides the ratings for each of the twenty services/facilities. The highest satisfaction results were recorded for the Township’s library, public drinking water, fire protection/ambulance and parks facilities. Approximately 47% of the respondents gave “Road Maintenance” a poor or very poor rating.

Opinion Survey – Problem Identification

Participants in the Opinion Survey were asked to rank a dozen Township issues as to whether or not they constituted a problem and, if so, how severe of a problem. Of the twelve issues posed in the survey, participants designated the following four issues as a “moderate problem” or “serious problem” such that they received a percentage of more than 50%:

- West Saginaw Traffic Volumes
- West Saginaw Appearance
- Open Space Protection
- Wetlands Protection

Figure 5-2 provides a “scorecard” as to how participants at the Futuring Session identified whether or not various Township issues constituted a serious problem.

It’s interesting to note that a very similar Opinion Survey was conducted in 2004 in conjunction with the drafting of the Comprehensive Plan. Participants generally identified the same issues as serious problems in the 2011 survey as they did in the 2004 survey although the percentage rankings differed:

Issue	2004	2011
West Saginaw Traffic Volumes	56%	41%
Conversion of Farmland to Development	30%	28%
West Saginaw Appearance	21%	34%

Table 5-1: Futuring Session Rating of Public Services/Facilities					
	Excellent Rating	Good Rating	Fair Rating	Poor Rating	Very Poor Rating
Library Facility	66%	26%	3%	0%	0%
Library Programs	49%	31%	6%	0%	0%
Public Drinking Water Quality	50%	31%	8%	0%	0%
Fire Protection	46%	44%	4%	2%	0%
Ambulance/EMT Service	45%	44%	4%	2%	0%
Park Facilities	43%	46%	9%	0%	0%
Park Programs	39%	36%	10%	1%	0%
Police Protection	33%	50%	12%	1%	1%
Recycling Services	32%	36%	14%	10%	5%
Stormwater Drainage	21%	38%	20%	4%	4%
Cellular Communications	17%	44%	18%	3%	3%
Building Code Enforcement	16%	31%	12%	5%	3%
Zoning Code Enforcement	13%	32%	15%	6%	4%
Private Drinking Water Quality	10%	13%	11%	5%	3%
Rental Housing Enforcement	7%	22%	11%	4%	3%
Cable TV Service	7%	24%	28%	16%	6%
Public Bus Service	5%	23%	21%	13%	11%
Blight/Junk Enforcement	4%	32%	25%	12%	9%
Sign Code Enforcement	4%	28%	14%	11%	2%
Road Maintenance	1%	13%	37%	29%	18%
* Percentages do not total 100% due to "No Opinion" responses and rounding off of percentages					

Table 5-2: Futuring Session Identification of Serious Problems	
Issue	% of Respondents Identifying this Issue as a Serious Problem
West Saginaw Traffic Volumes	41%
West Saginaw Appearance	34%
Open Space Protection	33%
Wetlands Protection	31%
Farmland Conversion to Urban Development	28%
Availability of Sidewalks	22%
Traffic Speeds on Local Roads	19%
Soil Protection Measures	18%
Groundwater Protection	16%
Traffic Volumes in Residential Areas	12%
Availability of Affordable Housing	4%
Availability of Senior Housing	2%

Opinion Survey – Written Responses

The Opinion Survey provided participants an opportunity to provide written responses to three questions as follows:

1. What issues would you be willing to pay more taxes to address?

There were 61 responses to the question with the number one answer being police and fire protection, followed by sidewalk/pathway improvements and the third most popular response was parks & recreation facilities.

2. Are there conditions at a particular location in the Township you feel should be improved? If so, where?

There were 63 responses to the question. The majority of the responses focused on concerns pertaining to poor road conditions with West Saginaw Highway being the number one response, Elmwood Road being the number two response and St. Joe Highway being the third response.

3. Please provide any additional comments on any Delta Township issues that may not have been identified in the survey.

There were a wide variety of responses to this question including the following:

- Remove deteriorated buildings in the Township.
- Provide Township trash pick-up.
- Institute a Township leaf pick-up program.
- Do something about property owners who fail to remove snow from sidewalks.
- Create an identity for Delta Township.
- Repair the numerous potholes in the streets.
- There were many comments, both pro & con, regarding the Township’s construction of sidewalks.

Chapter 6 Goals & Objectives

GOALS & OBJECTIVES

Introduction

The goals presented in this chapter are intended to reflect local attitudes and aspirations with respect to future growth and development in the Township. The goals were developed following a review of participant's input at a Futuring Session and an evaluation of responses to more than sixty topics presented in an Opinion Survey. The Opinion Survey also provided respondents an opportunity to "fill in the blank" with a written response on any topic.

The goals and objectives will aid in establishing a basis for the land use policies recommended in the Future Land Use chapter. The goals and objectives will provide township decision makers with direction when addressing land use issues in the future. It's acknowledged that the goals and objectives must be adaptable to changing conditions, balanced against competing priorities, and subject to regulatory constraints and fiscal limits.

The following definitions are provided to assist readers in understanding the use of the terms:

Goal: A destination, a final condition which a community strives to attain.

Objective: A description of specific actions which are designed to achieve a goal.

GOAL: Residential

Provide for residential development that will address the needs of all segments of the population while preserving existing neighborhoods and providing adequate room for growth.

Objectives:

- Pursue the preservation of older residential neighborhoods through code enforcement, support of the rental housing inspection program, investments in public infrastructure, and the provision of adequate services.
- Encourage residential development in locations possessing adequate infrastructure which are in close proximity to services and transportation facilities.
- Provide regulations permitting a range of housing types accommodating various income and age groups.
- Enhance the livability of residential areas by insuring that they're walkable, possess adequate open space and are compatible with adjacent non-residential areas.

GOAL: Commercial

Designate adequate areas to provide commercial facilities, appropriately sized and situated, to serve neighborhood, community and regional needs.

Objectives:

- Continue efforts to address the decline of commercial properties on West Saginaw Highway east of Elmwood Road by reducing vacancies, recruitment of new businesses, and appropriate code enforcement.
- Encourage infill development and/or the redevelopment of commercial properties where adequate infrastructure exists.
- Ensure that commercial development is compatible with adjacent residential land uses by addressing issues related to lighting, traffic, parking, signage, noise and landscaping.
- Limit new commercial development on West Saginaw Highway to areas east of Broadbent Road.
- Explore the possibility of creating a single commercial zoning district to replace the existing two districts.

GOAL: Industrial

Provide sufficient area for new industries while retaining existing industrial land uses which provide employment opportunities and diversify the Township's tax base.

Objectives:

- Prevent incompatible land uses from encroaching on existing and planned industrial areas.
- Maintain and expand the infrastructure serving the Township's industrially zoned properties.
- Promote the extension of public utilities to serve planned industrial development on the 100 acre "triangle" area in section 33 bordered by Davis Highway.
- Continue to provide for an Economic Development Coordinator who can serve as a liaison to business and industry.

GOAL: Public Services & Facilities

Provide adequate public services and facilities to Township residents, businesses and industry

Objectives:

- Continue to insure that the provision of public services, including public water and sanitary sewer service, are concurrent with new development.
- Continue to provide law enforcement & fire protection services sufficient to meet the Township's needs.
- Continue to support Capital Improvements Programming which plans for public improvements in advance, prioritizes projects to maximize benefits and assists in implementation of the Comprehensive Plan.
- Explore the possibilities of partnering/collaborating with other communities regarding public services.
- Initiate a policy of Universal Accessibility which creates a process for exceeding minimum ADA requirements by applying the principles of universal design thereby maximizing access and utility by all segments of the population across all geographic areas; representing both persons with and without disabilities.

GOAL: Economic Development

Create a sustainable, growing, and diversified economy for Delta Township.

Objectives:

- Continue to support economic development efforts which support business attraction, retention and expansion. Such efforts would include retention calls on existing businesses/industries, the marketing of vacant buildings/properties in the Township, and implementation of a computer software program which provides a data base to facilitate communication with businesses.
- Cooperate/Collaborate with the Township's economic development partners including the Lansing Economic Area Partnership (LEAP), the Lansing Regional Chamber of Commerce, Eaton County, and the Michigan Economic Development Corporation.

- Provide financial incentives to new & existing industries as the Township Board finds appropriate.
- Analyze economic development “tools” which will provide the greatest benefit to the Township.
- Take advantage of economic development grants which the Township may qualify for.

GOAL: Transportation

Support efforts to provide adequate transportation modes which are safe, efficient and fiscally sound.

Objectives:

- Support the Eaton County Road Commission, who has jurisdiction over 90% of the Township’s roads, by providing local “match” dollars for major road projects, financially participating in the annual street resurfacing program and obtaining needed rights of way during the site plan review process.
- Continue the dialogue with the Michigan Department of Transportation regarding West Saginaw driveway closures, improvements to overpasses on I-96 & I-496 and the establishment of a boulevard on West Saginaw Highway west of I-96.
- Support the concept of Complete Streets that safely accommodate motorized and non-motorized vehicles and pedestrians and explore topics including road “diets” and the provision of bike lanes.
- Support efforts to improve public transit service in Delta Township.
- Continue efforts to make Delta Township a more walkable community by routinely repairing sidewalks, filling in gaps in the sidewalk system, expanding the sidewalk system, and providing a network of shared use paths.
- Respond to public concerns relating to traffic speeds and volumes in residential neighborhoods.
- Provide input to the Tri-County Regional Planning Commission during their periodic updates of the Regional Transportation Plan.

GOAL: Environment & Sustainability

Protect the quality of the Township’s natural resources and environmentally sensitive areas.

Objectives:

- Promote planning efforts to protect the natural environment, being the land, water and air.
- Continue efforts to reduce the environmental impacts of Township facilities and the provision of services.
- Continue Deleafing Days at the Recycling Site and the capping of private wells as finances permit.
- Participate in Tri-County Regional Planning Commission’s environmental initiatives including Greening Mid-Michigan (A regional vision for greening infrastructure planning), Wellhead Protection Committee and the Greater Lansing Regional Committee (GLRC) for Stormwater Management (Implementation of the Phase II Stormwater Program).
- Investigate the possible adoption of a Stormwater Management Ordinance, a Wetlands Protection Ordinance and Open Space preservation programs.

GOAL: Parks & Recreation

Provide adequate recreational programs and facilities for active and passive use by residents.

Objectives:

- Prepare development plans for Mt. Hope Park, the Players Club property and a canoe launch on the Grand River at the Willow Highway property.
- Upgrade existing parks as identified in the Parks & Recreation Plan.
- Provide linkages between residential areas and park facilities as well as non-motorized access between parks whenever reasonably feasible.
- Continue to foster partnerships with the Grand Ledge & Waverly Schools in sharing and supplementing recreational programs & facilities.
- Continue to seek public input as to the community’s needs for recreation programs & facilities.

GOAL: Land Use Planning

Continue to provide a land use planning program providing for managed growth while encouraging reinvestment in older areas of the Township.

Objectives

- Maintain and expand practices that educate and promote continuous opportunities for broad citizen and stakeholder participation in all land use planning efforts.
- Review the Township's Comprehensive Plan every five years and have the Planning Commission update the Plan as necessary.
- Encourage efforts to keep the Township's land use regulations, including the Zoning Ordinance, up to date and legally defensible.
- Continue to review land development requests using an established, equitable and expedient process which is fair to all parties.
- Support the Tri-County Regional Planning Commission's planning programs including implementation of the 2005 Regional Growth: Choices for Our Future Plan and the Urban Services Management Study of 2011.
- Explore the benefits of adoption of Smart Growth concepts in the Township's planning efforts including the reuse of existing structures and in-fill development.
- Expand communication efforts with adjacent communities in an attempt to reach common understandings regarding land use issues.

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Chapter 7 Land Use Plan

Table 7-1: Net Density of Future Residential Land Uses

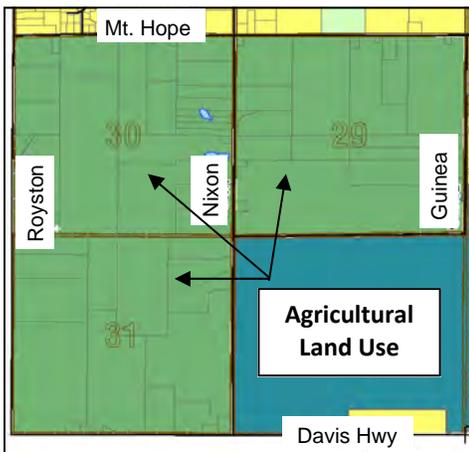
Land Use Category	Net Density
Low Density Residential	0.5 - 5.0 Dwelling Units Per Acre
Two Family Residential	4.0 - 6.0 Units per Acre
Multiple Family Residential	5.1 – 15.0 Units Per Acre
Manufactured Home Park	3.0 – 6.0 Units Per Acre
Agriculture	1 Dwelling Unit per 20 Acres

The development of a community’s Land Use Plan is based on many factors, including the type and distribution of existing land uses, presence of natural features, access management issues, provisions for pedestrian circulation, and availability of public utilities. The community’s preferences and future needs must be considered, including the desire for a mixture of land uses, sustainable economic development, and a balanced tax base.

The following chapter forms the basis for developing the Future Land Use Plan. The process began with developing land use policies and land use categories, based upon the above-referenced issues.

Land Use Categories

The following descriptions are provided for each land use category indicating the intent of each category, the primary land uses, the net density (where applicable), and the predominant location of the land use within the Township. Table 7-2 provides a comparison of the land use classifications on the Future Land Use Map (see Map 7-1) and the corresponding zoning districts in the Township’s Zoning Ordinance.



Agriculture

The Agriculture land use category, planned for 1,786 acres, is intended to preserve productive agricultural lands in the long-term and protect existing farm operations from encroachment by incompatible uses. The permitted density in the Agriculture category is one dwelling unit per 20 acres of land. The 20 acre minimum lot size requirement in southwest Delta Township was established by the Township’s 1974 Zoning Ordinance.

Agricultural land uses are concentrated in sections 29, 30, & 31 of the Township. The Future Land Use Map, Map 7-1, depicts the Urban Service Boundary which excludes public water and sanitary sewer service to the southwest corner of the Township.



Agricultural land is anticipated to decrease from 18.3% of the Township’s total land area in 2010, but it’s anticipated that it will continue to occupy approximately 10% of Township land in the future.

It’s recognized that agricultural land uses have historically been a defining character of the Township’s former rural character. However, Tables 2-1 & 2-2 document the conversion of agricultural land to other uses with the most prevalent being Low Density Residential development.

Table 7-2: Comparison of Future Land Use Map Designations To Zoning Districts	
Future Land Use Map Designation	Zoning District
Parks	NR District, Natural Resources
Agricultural	A1 District, Agricultural
Cemetery	No Comparable District, Permitted by Special Land Use Permit
Low Density Residential	A2 District, Agricultural/Residential RA District, Very Low Density Residential RB District, Low Density Residential RC District, Moderate Density Residential
Two Family Residential	RC District, Moderate Density Residential Permitted by Special Land Use Permit RD District, Medium Density Residential RE District, High Density Residential
Multiple Family Residential	RC District, Moderate Density Residential Permitted by Special Land Use Permit RD District, Medium Density Residential RE District, High Density Residential
Manufactured Home Park	Permitted by Special Land Use Permit in the RD & RE Districts
Institutional	No Comparable District, Permitted by Special Land Use Permit
Office	Office District
Commercial	B1 District, Local Service Commercial B2 District, Community Commercial
Industrial	I-1 District, Limited Industrial I-2 District, General Industrial
Utility	No Comparable District, Permitted by Special Land Use Permit
PA 425 District	PA 425 District
Urban Services Boundary	No Comparable District/Boundary





Residential

Low Density Residential

The Low Density Residential land use category, planned for 9,240 acres, permits densities of 0.5 to 5.0 units per acre. The primary dwelling unit type in the Low Density Residential category is single family detached residences located in subdivisions. However, other higher density housing types may be permitted including attached dwelling units. Encouraging compact building design is one of the principles of Smart Growth which is advocated in the Plan's Goals & Objectives chapter.

Low Density Residential development is found throughout the Township but it's predominately located north of Mt. Hope Highway. The majority of the vacant land designated for Low Density Residential development is located west of I-96 and south of the northern course of the Grand River.



It should be acknowledged that a significant amount of the land designated as Low Density Residential west of I-96 has been split into large acreage parcels of 1-5 acres with single family homes. Thus, the possibility of these properties being developed at greater densities in the future is highly unlikely.

It's estimated that approximately half of the 9,240 acres designated for Low Density Residential development is not presently served by Township water and sanitary sewer service which is required for single family subdivisions. Maps 3-1 and 3-2 illustrate the current sanitary sewer and water service areas.

Two Family Residential

The Two Family Residential land use category, planned for 146 acres, includes two-family and attached dwellings, most commonly in the form of duplexes and townhomes. In the past, two-family units were primarily rental units while today this form of housing is increasingly owner-occupied.

The Two Family Residential category is found at various locations across the Township. There is very little vacant land which is designated for Two Family Residential development.

Permitted densities in the Two Family Residential category range from 3.6 to 5.0 units per acre dependent on the zoning classification, the applicable special land use permit, and the approved site plan.



Multiple Family Residential

The Multiple Family Residential land use category, planned for 900 acres, provides appropriate locations for the Township's highest residential densities. Permitted densities range from 5.1 to 15.0 units per acre dependent on the zoning classification, possible special land use permits, and the approved site plan.

Table 7-3: Future Land Use Through 2032		
Land Category	Acres	% of Total
Agriculture	1,786	8.0%
Low Density Residential	9,240	41.4%
Two Family Residential	146	0.7%
Multiple Family Residential	900	4.0%
Manufactured Home Park	35	0.2%
Commercial	1,089	4.9%
Office	654	2.9%
Industrial	2,206	9.9%
Institutional	594	2.7%
Cemetery	58	0.3%
Park	1,282	5.7%
Utility	378	1.7%
PA 425 District	1,019	4.6%
Total usable land area	19,387	86.9%

[The area of the Grand River, as well as streets and other rights-of-way, have not been included. These account for 13.1% of total land area.]



LAND USE PLAN

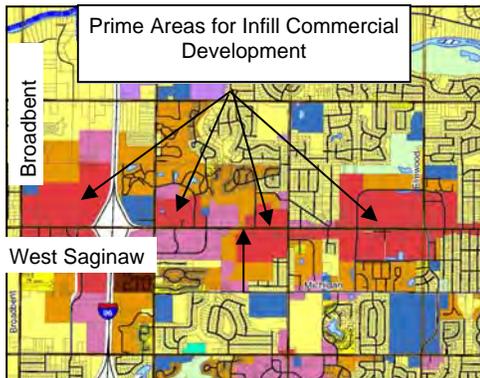


Multiple Family Residential lands are located in the central portion of the Township between Willow Highway and I-496. The majority of the Multiple Family Residential land which is vacant is located west of I-96.

Multiple Family Residential development is typically characterized by multi-family apartment buildings which are three stories or less in height although other dwelling types, such as attached townhomes are permitted. The majority of dwelling units in the Multiple Family Residential category are presently rental units which is a pattern expected to continue in the future. It's recommended that Multiple Family Residential Development be served by public water and sanitary sewer facilities.

Manufactured Home Park

The Manufactured Home Park land use category is planned for 35 acres on Canal Road between West Saginaw and St. Joe Highway which is occupied by the Century Park manufactured home community. The maximum permitted density for manufactured home developments is approximately 8.5 units per acre dependent on the housing type, lot configurations and approved site plan.



Non-Residential

Commercial

The Commercial land use category, planned for 1,089 acres, is intended for a variety of retail and service businesses. The West Saginaw Highway area serves as the principal commercial corridor for the Township. Most of the West Saginaw retail buildings are one story and those constructed east of Elmwood Road were built in the 1960's and 1970's. Big-Box retailers were prevalent in the decades of the 1990's and 2000's, particularly in the West Saginaw/Marketplace area.

The older retail establishments on West Saginaw east of Elmwood Road were particularly hard hit by the economic recession which began in 2008. Many of these retail buildings are approaching their anticipated lifespan and are prime candidates for redevelopment.



As noted in the Goals Chapter, the Township should continue efforts to address the decline of these retail properties by reducing vacancies, recruiting new businesses and administering appropriate code enforcement. The Goals Chapter also encourages infill development and/or the redevelopment of commercial properties as well as limiting new commercial development on West Saginaw to areas east of Broadbent Road with the exception of those properties which are already zoned commercial. The Township's Zoning Ordinance was amended in 2010 to permit mixed use buildings containing residential & non-residential uses.

As of 2012 there were approximately 350 acres of vacant, commercially zoned land in Delta Township with approximately half of the acreage located adjacent to West Saginaw and west of I-96.

It should be recognized that there is a significant amount of commercial development, including a Meijers Store and the Cedar Village Shopping Center, at the M-100/M-43 intersection which is two miles west of Delta Township's western border.

Any analysis of Future Land Use in Delta Township should recognize the existence of the following large tracts of vacant land within one mile of the Township's eastern border:

- 104 acres, Racer Trust property on the north side of West Saginaw Highway between Windemere Park School and the railroad tracks, located in Lansing Township, this property was formerly GM Plant #3.
- 63 acres, Racer Trust property on the south side of West Saginaw Highway between Rosemary St. and the railroad tracks, located in Lansing Township, formerly GM Plant #2.
- 72 acres Racer Trust property on the south side of West Saginaw Highway between Verlinden Ave. and the railroad tracks, located in the City of Lansing, formerly GM Plant #6.
- 115 acres, property owned by the City of Lansing located in Lansing Township at the southeast corner of the West Saginaw/Waverly intersection, formerly the Waverly Golf Course which closed in 2008. City of Lansing voters authorized the sale of the property in November 2012.



As of 2012 the Racer Trust properties were being marketed but the future uses were unknown.

In late 2012 a "Saginaw Highway Market Analysis" was prepared by the consulting firm of Land Use/USA for the West Saginaw business corridor between Waverly and Broadbent Roads. The Study identified vacant buildings and parcels, inventoried over 500 businesses in the area, and provided retail market strategies for six specific locations along the corridor. The Study recommended the development of a "Town Center" which would include: open-air retailing, pedestrian amenities, a traditional street grid pattern, green streetscaping, mixed land uses, and a public square. The Study recommended zoning ordinance revisions to encourage and accommodate the recommended "Town Center" project.



Office

The Office land use category, planned for 654 acres, encompasses land that accommodates a wide variety of office uses. Office building types range from single buildings on one parcel to unified office park developments to large corporate offices.

Office land uses are concentrated in the center of the Township, primarily along West Saginaw and at the Creyts/I-496 interchange. Office areas have been designated in some locations to provide a transition between incompatible land uses.



Industrial

The Industrial land use category, planned for 2,206 acres (not including the PA 425 areas reviewed below) encompasses the existing industrial facilities in the southeastern quadrant of the Township, generally bordered by I-496 to the north, I-96/I-69 to the west and Lansing Road to the east and south. The industrial areas provide significant employment opportunities and help to diversify the Township's tax base. In 1958 approximately 2,000 acres were rezoned from an agricultural to an industrial zoning classification which established the Township's industrial base.

The majority of the Township's industrially zoned properties are presently served by public water, storm drains, sanitary sewers, and all-weather roads. An exception is the 100 acre area located in the triangle formed by I-96 & I-69 fronting on Davis Highway in section 33 which has been designated for industrial development but is lacking public utilities.



As of 2012 there were approximately 400 acres of vacant industrial land suitable for development, not including the PA 425 areas.

Parks & Recreation

The Parks & Recreation land use category, planned for 1,282 acres, includes mini-parks, neighborhood parks, community parks, large urban parks, natural resource areas and special use parks. The Township's park system consists of a dozen public parks. Four of the Township's parks, being Delta Mills, Grand Woods, Hunter's, and Anderson have significant frontage along the Grand River.

The Parks & Recreation classification includes approximately 400 acres of open space in private ownership including properties owned by the Audubon Society (section 2), the Ingham County Conservation League (section 4), General Motors (section 29) and the Woldumar Nature Center.



The Delta Township Board adopted a revised Parks & Recreation Master Plan in October 2012.

Cemetery

The Cemetery land use category, planned for 58 acres, encompasses the Township's two public cemeteries being the Delta Center Cemetery and Hillside Cemetery. Deepdale Cemetery, a privately owned facility, is located at the Waverly/Old Lansing Road intersection. Land in the Cemetery category is not expected to undergo significant changes in the future.

Institutional

The Institutional land use category, planned for 594 acres, includes public and governmental buildings and uses, libraries, schools, places of worship, and private clubs. Grand Ledge Schools and Waverly Schools each occupy more than 100 acres in the Township while private schools occupy over 80 acres.

Institutional uses are widely dispersed throughout the Township and this category is not expected to undergo significant changes in the future. The Township’s zoning ordinance mandates that most institutional uses be subjected to special land use permit approval prior to their development.

Utility

The Utility land use category, planned for 378 acres, identifies lands that are used or planned for a variety of uses including water towers, electric sub-stations, a wastewater treatment plant and a power station producing electricity. The Lansing Board of Water & Light’s Erickson Power Station on Canal Road occupies approximately 280 acres. Land in this category is widely dispersed throughout the Township.

PA 425 District

The PA 425 District land use category, planned for 1,019 acres, includes properties located in sections 27, 28, 32 & 33 of the Township which the Township co-manages with the City of Lansing. Public Act 425 of the Public Acts of 1984 permits two local units of government to conditionally transfer property for the purpose of an economic development project. The agreement provides details specifying governmental jurisdiction, permitted uses, zoning regulations, the sharing of taxes and other revenues, the provision of utilities, and the duration of the agreement.

There are currently four PA 425 property agreements with the City of Lansing which are listed in Table 7-4.

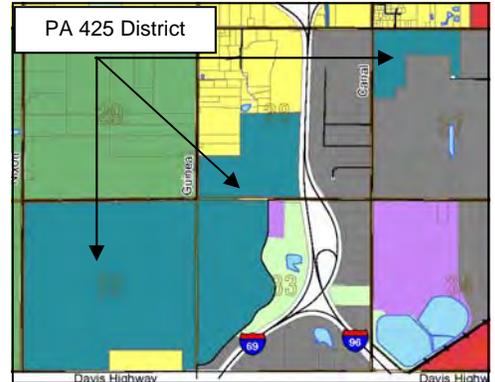


Table 7-4: PA 425 Property Agreements		
Name of Property	Location	Extent of Agreement
Lansing-Delta GM Assembly Plant	Sections 28, 32 & 33	25 year agreement executed in 2000
Bridgewater Interiors	East side of Canal Rd., 800 ft. south of Mt. Hope Hwy.	15 year agreement executed in 2005
Android Industries	Southeast corner of the Canal/Mt. Hope intersection	15 year agreement executed in 2005
Johnson Controls	South side of Mt. Hope Hwy., 1/4 mile east of Canal Rd.	15 year agreement executed in 2005

The Urban Service Boundary

The Urban Service Boundary includes 18,192 acres. Lands inside the boundary allow for high density urban development with full utility services, while the area outside the boundary is restricted for lower density development unless otherwise noted on the Future Land Use Map. Thus, Delta Township generally will not support the development of residential subdivisions and high density growth outside of the designated boundary. Furthermore, public water and sanitary sewer services will not be provided to areas outside the boundary with the possible exception of serving existing development in adjacent communities which could be mutually beneficial to all parties.

Land use classifications and zoning designations established in the northwestern and southwestern portions of the Township support the Urban Service Boundary.

Evolution of Delta Township's Urban Service Boundary

The 1982 version of the Master Plan designated geographic areas in the extreme northwest and southwest portions of the Township as "Areas Not Anticipated for Public Utilities". The extension of public water and sanitary sewer service to these areas wasn't planned for the following reasons:

- Major physical barriers, like the Grand River
- The protection of croplands, parks and conservations areas
- The extension of public utilities would not be cost-effective
- Established planning policies including: a) the Agricultural land use designation for southwestern Delta Township to reflect the gravel roads and soils conducive to agricultural activities, b) the establishment of a 20 acre minimum lot size in the 1974 Zoning Ordinance for southwestern Delta Township, c) mandatory public water/sanitary sewer service for subdivisions, and d) the planning for rural densities in the adjacent communities of Watertown Township to the north and Oneida & Windsor Townships to the west and south.

The Future Land Use Map within the 2004 version of the Comprehensive Plan designated "Future Water and Sanitary Sewer Service Areas". The boundaries of the service areas were slightly modified from the 1982 Plan, primarily to reflect planning for the development of the Lansing-Delta General Motors Plant in sections 28, 32 & 33. The Implementation Chapter of the Plan also recommended: "Investigate the Creation of an Urban Service Boundary to encourage development/redevelopment in the existing developed areas of the Township".

In 2005 the Tri-County Regional Planning Commission (TCRPC) completed a major undertaking entitled "Regional Growth: Choices for Our Future" in which the agency collaborated with communities throughout the region. The Plan advocated that infrastructure expansion be directed to urbanized areas via the establishment of urban service boundaries. In 2006 the Delta Township Board passed a resolution of support for the Growth Study.

In 2005 TCRPC formed the Urban and Rural Service District/Urban Service Boundary (URSD/USB) Committee to assist in the implementation of the Regional Growth initiative. Delta Township has been a committee participant. In 2011 an Urban Service Management Study was completed by the Land Information Access Association which acknowledged that the establishment of an urban service boundary could be a successful tool in managing urban sprawl. In 2011 the Township Board passed a resolution expressing continued support for the URSD/USB Committee's planning efforts.

Map 7-1 Future Land Use Delta Township Eaton County, Michigan



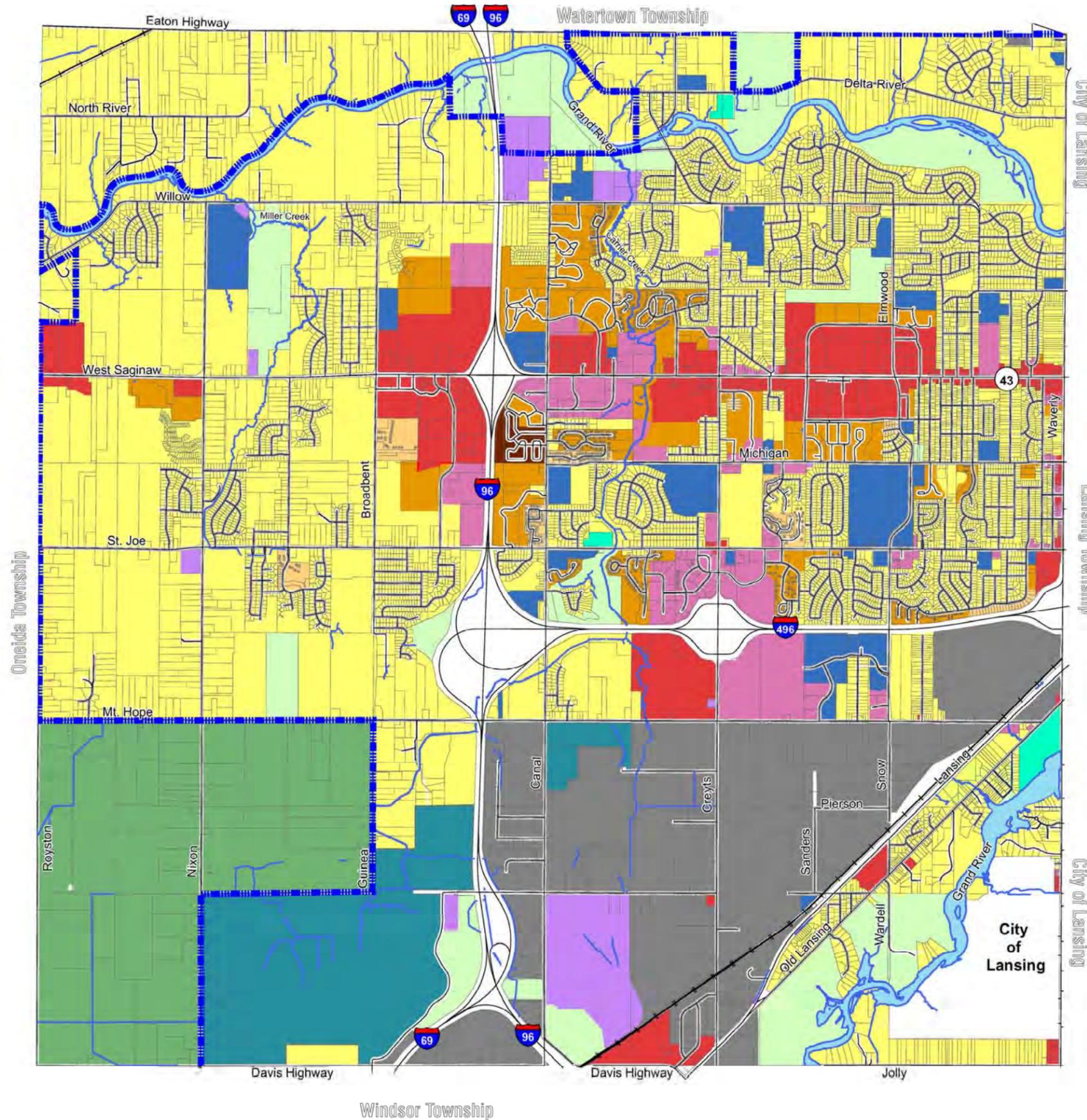
- Agriculture
- Low Density Residential
- Two Family Residential
- Multiple Family Residential
- Manufactured Home Park
- Park
- Institutional
- Office
- Commercial
- Cemetery
- Industrial
- Utility
- PA 425 District
- Grand River
- Streams
- Urban Service Boundary
- Railroad

0 2,500 5,000
Feet



BIRCHLER ARROYO
ASSOCIATES, INC.

Data Source: Delta Township
Map Revised January 31, 2013



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Chapter 8 Zoning Plan

What is a Zoning Plan?

Section 33 of the Michigan Planning Enabling Act mandates that if a community has adopted a zoning ordinance that it must provide a zoning plan. The Act requires that the zoning plan include an explanation of how the land use categories on the future land use map relate to the districts on the zoning map. Delta Township officials have chosen to provide the Township's Zoning Plan as a separate chapter in the Comprehensive Plan.

A Zoning Plan describes:

- The purposes and main uses allowed in each zoning district
- The relationship of the zoning districts to the Future Land Use Map classifications
- The general intent of the zoning districts, whether utilities are generally available, residential densities, etc.

Relationship of the Comprehensive Plan to the Zoning Plan

The Comprehensive Plan is intended to guide township officials and citizens in making decisions about public facilities and the use of land for the next twenty years. The Comprehensive Plan doesn't directly control land use. The Township's Zoning Ordinance and Map are the primary tools used to control land use. The permitted uses of land, development regulations (setbacks, lot sizes, height, etc.), densities and other related standards are established in the Township's Zoning Ordinance.

Table 8-1 on the following page provides a comparison of the land use classifications on the Future Land Map (see Map 7-1) and the corresponding zoning districts in the Township's Zoning Ordinance.

Zoning Districts

The following descriptions are provided for each zoning district indicating the intent of each district, the primary land uses, minimum lot sizes, and the predominant location. The reader is provided with a reference to the applicable chapter of the zoning ordinance containing the specific zoning regulations for each district.

Natural Resources

NR, Natural Resources District, Chapter 5 in the Zoning Ordinance

The intent of this district is to provide for the management of the natural resources in open space areas within the Township. The regulations are designed to allow for the development of natural resources while prohibiting development which could detract from the natural character of such areas. The density and intensity of development are regulated in order to promote the wise use of the Township's natural assets. The minimum lot area in the NR District is ten acres.

Chapter Five of the Zoning Ordinance notes the Uses Permitted by Right and Special Land Use as well as providing Site Development Standards for the NR District. Single family homes are permitted in the NR district. Many of the Township's parks and natural areas (Woldumar Nature Center & Audubon Society Property) are zoned NR, Natural Resources.

Table 8-1 Comparison of Future Land Use Map Designations to Zoning Districts	
Future Land Use Plan Designation	Zoning District
Agriculture	A1 District Agricultural
Low Density Residential	A2 District Agricultural/Residential RA District, Very Low Density Residential RB District, Low Density Residential RC District, Moderate Density Residential
Two Family Residential	RC District, Moderate Density Residential Permitted by Special Land Use Permit RD and RE Districts
Multiple Family Residential	RC District, Moderate Density Residential Permitted by Special Land Use Permit RD and RE Districts
Manufactured Home Park	RD and RE Districts Permitted by Special Land Use Permit
Park	NR District, Natural Resources
Institutional	No comparable District, Permitted by Special Land Use Permit
Office	Office District
Commercial	B1 District, Local Service Commercial B-2 District, Community Commercial
Industrial	I1 District, Limited Industrial I2 District, General Industrial
Utility	No comparable District , Permitted by Special Land Use Permit
PA 425 District	No Comparable District
Grand River	No Comparable District

Agriculture

A1, Agricultural District, Chapter 6 in the Zoning Ordinance

The intent of this district is to recognize agriculture as a land use by maintaining land values and property taxes at levels which farming operations can support. This district is designed to regulate the establishment of disruptive non-agricultural uses in areas suitable for agriculture and to maintain land area of sufficient size for agricultural uses. The minimum lot area in the A1 District is twenty acres.

Chapter Six of the Zoning Ordinance specifies the Uses Permitted by Right and Special Land Use as well as providing Site Development Standards for the A1 District. Single family homes are permitted in the A1 district in addition to raising livestock, and the growing of plants, trees & nursery stock. A1 zoning in Delta Township is limited to sections 29, 30 & 31 in the extreme southwest corner of the Township.

Residential*A2, Agricultural/Residential District, Chapter 7 in the Zoning Ordinance*

The intent of this district is to provide for limited agricultural uses while permitting semi-rural residential uses. Properties in this district are generally not served by public sanitary sewer and water services. The minimum lot area in the A2 District is two acres.

Chapter Seven of the Zoning Ordinance specifies the Uses Permitted by Right and Special Land Use as well as providing Site Development Standards for the A2 District. Uses permitted in the A2 district include single family homes, the raising of livestock, and the growing of plants, trees & nursery stock. The A2 zoning designation predominates in western Delta Township to the west of I-96 and north of Mt. Hope Highway.

RA, Very Low Density Residential, Chapter 8 in the Zoning Ordinance

The intent of this district is to provide for residential development at a maximum density of one dwelling per acre in areas not served by public utilities. The RA district has a non-urban character which is enhanced by single family homes on larger parcels.

Chapter Eight of the Zoning Ordinance specifies the Uses Permitted by Right and Special Land Use as well as providing Site Development Standards for the RA District. The predominant use in the RA district is single family homes. There is relatively little land area in the Township zoned RA and the districts are randomly scattered in rural locations. RA zoned properties were typically created many decades ago when land values were much cheaper.

RB, Low Density Residential, Chapter 9 in the Zoning Ordinance

The intent of this district is to provide for residential development with a maximum density of approximately 3.6 units per acre "by right". RB zoned properties are served by public water and sanitary sewer services. Zoning regulations pertaining to the RB district permit specific non-residential uses which provide convenient services to residents while preserving the residential character of the district.

Chapter Nine of the Zoning Ordinance specifies the Uses Permitted by Right and Special Land Uses as well as providing Site Development Standards for the RB District. Subdivision developments consisting of single family homes are the most common land use found in the RB district. The Zoning Ordinance's Planned Unit Development regulations permit greater flexibility in development and higher densities of up to 4.1 units per acre if authorized by the Township Board. The RB zoning district occupies more land in the Township than any other residential zoning designation.

RC, Moderate Density Residential, Chapter 10 in the Zoning Ordinance

The intent of this district is to provide for residential development at a maximum density of approximately 4.3 units per acre by right. RC zoned properties are served by public water and sanitary sewer services. Certain non-residential uses are permitted in the RC district in order to provide services to adjacent residents while preserving the residential character of

the district. The RC district differs from the RB district in that the former permits smaller lot sizes, smaller floor areas and two family dwellings are permitted subject to Special Land Use Permit approval.

Chapter Ten of the Zoning Ordinance specifies the Uses Permitted by Right and Special Land Use as well as providing Site Development Standards for the RC District. Subdivision developments with single family homes are the predominate use in the RC district. The zoning ordinance's Planned Unit Development regulations permit greater flexibility and higher densities of up to 5.0 units per acre if authorized by the Township Board. The majority of RC zoned properties are found in the northeast quadrant of the Township.

RD, Medium Density Residential, Chapter 11 in the Zoning Ordinance

The intent of this district is to provide for multiple family residential development with varying maximum densities of 8 to 11 units per acre dependent on whether the Zoning Ordinance's Planned Unit Development regulations are applied. Public sanitary sewer and water services are required for RD properties.

Chapter Eleven of the Zoning Ordinance specifies the Uses Permitted by Right and Special Land Use as well as providing Site Development Standards for the RD District. The predominate land use on RD properties is 2-3 story apartment buildings developed in clusters. The majority of RD zoned properties are located in close proximity to Michigan Avenue and Canal Road.

RE, High Density Residential, Chapter 12 in the Zoning Ordinance

The intent of this district is to provide for the highest density residential development in the Township. Maximum densities in the RE district vary from 11-15 dwellings per acre depending on whether or not the Zoning Ordinance's Planned Unit Development regulations are applied. Public sanitary sewer and water services are required for RE properties.

Chapter Twelve of the Zoning Ordinance specifies the Uses Permitted by Right and Special Land Use as well as providing Site Development Standards for the RE District. Multiple family apartment buildings, restricted to a height of 4-6 stories, are the most common building form in the RE district. Manufactured housing developments are permitted in the RD & RE districts subject to the granting of a Special Land Use Permit. The majority of RE zoned properties are found in close proximity to the Lansing Mall area, as well as along Michigan Avenue and Canal Road.

Office

O, Office, Chapter 13 in the Zoning Ordinance

The intent of this district is to provide for a variety of office uses. The Office zoning regulations are designed to insure compatibility between office uses and abutting land uses. The minimum lot area in the Office zoning district is approximately ¼ acre although much larger parcels are more common. Public sanitary sewer and water services are required for Office properties.

Chapter Thirteen of the Zoning Ordinance specifies the Uses Permitted by Right and Special Land Use as well as providing Site Development Standards for the Office District. Office buildings may house single tenants or multiple tenants. A very limited number of commercial uses, also limited by floor area, are permitted in the Office district. In the past, office zoning districts were often established to serve as a transition between more intensive commercial uses and lower density residential areas. Older single tenant office buildings are often found along West Saginaw Highway and Waverly Road. Several office parks and large single tenant office complexes, such as Farm Bureau Insurance and Auto-Owners Insurance, are located in close proximity to freeway interchanges in the Township.

Commercial

B1, Local Service Commercial, Chapter 14 in the Zoning Ordinance

The intent of this district is to provide for commercial land uses designed to provide convenience shopping and services to residential areas. Commercial areas are intended to be limited in size and the number of locations. The commercial zoning regulations are designed to ensure compatibility with adjacent land uses. Public sanitary sewer and water services are required for commercially zoned properties.

Chapter fourteen of the Zoning Ordinance specifies the Uses Permitted by Right and Special Land Use as well as providing Site Development Standards for the B1 District. Mixed Use buildings, containing residential, office & retail uses, are permitted in the Township's two commercial zoning districts subject to Special Land Use Permit approval. Many types of commercial development are found in Delta Township including small single tenant properties, strip retail centers, drive-through businesses, Big-Box stores and a regional retail mall. Strip commercial development predominates on West Saginaw Highway for approximately four miles between Waverly Road and Marketplace Boulevard.

B2, Community Commercial, Chapter 15 in the Zoning Ordinance

The intent of this district is to provide for commercial uses designed to provide shopping and services on a regional scale. The zoning regulations are designed to result in the development of a cohesive and coordinated business area providing convenient access in an attractive setting.

Chapter fifteen of the Zoning Ordinance specifies the Uses Permitted by Right and Special Land Use as well as providing Site Development Standards for the B2 District. The B2 district permits auto/boat dealers who aren't permitted in the B1 district. The site development standards (setbacks, height limitations, lot area, etc.) are identical for the Township's two commercial zoning districts.

Industrial*I-1, Limited Industrial, Chapter 16 in the Zoning Ordinance*

The intent of this district is to provide for a variety of warehousing, industrial and manufacturing uses which are characterized by low land coverage and few objectionable external effects. The zoning regulations are designed to encourage the development of industrial areas compatible with one another as well as adjacent uses. The regulations are also intended to prevent the establishment of uses that are suitably provided for in other districts. Public sanitary sewer and water services are required for industrially zoned properties.

Chapter sixteen of the Zoning Ordinance specifies the Uses Permitted by Right and Special Land Use as well as providing Site Development Standards for the I-1 District. The I-1 district is primarily found along Mt. Hope Highway between Canal Road and Waverly Road.

I2, General Industrial, Chapter 17 in the Zoning Ordinance

The intent of this district is to provide for the development of more intensive industrial uses in a setting appropriate to such uses. Land conducive to industrial uses is limited in availability.

Chapter seventeen of the Zoning Ordinance specifies the Uses Permitted by Right and Special Land Use as well as providing Site Development Standards for the I2 District. The only differences in development standards between the I-1 and I2 districts are minimum lot size (I-1 = 1 ac., I2 = 2 ac.) and maximum height (I1 = 45 ft., I2 = no limit). The I2 district permits more intensive industrial uses such as incinerators, petroleum refining and the manufacturing of chemicals. Approximately 90% of the Township's industrially zoned properties are zoned I2. The majority of the Township's I2 zoned lands are found in the southeast quadrant of the Township.

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Chapter 9 Non-Motorized Transportation Plan

INTRODUCTION

The Delta Township Non-Motorized Transportation Plan was originally adopted by the Township Board as a free-standing document in 2005. That plan recommended reevaluation every five years to remain current and as a result, prescribed the 2012 update.

The purposes of the Non-Motorized Transportation Plan are to update the 2005 study to reflect completed non-motorized projects, adjacent community efforts, changes in non-motorized transportation trends, changes in the economic environment, changes in public opinion and to identify new non-motorized projects. The Plan will be used by the Township as a tool for implementation and to facilitate inter-departmental communication, as well as with the Eaton County Road Commission and adjacent communities, in order to advocate for non-motorized transportation facilities.

Goals and Objectives

The goals and objectives were formulated to guide the development of the Delta Township Non-Motorized Transportation Plan. They were developed based upon input from the Township Board, Parks and Recreation Department, Community Development Department, public input and related planning efforts, including those of adjacent communities. The numbering below is for organizational purposes and does not reflect a particular priority.

GOAL I. Provide better non-motorized connectivity

Objective A. Provide non-motorized links between key destinations within Delta Charter Township.

Objective B. Provide non-motorized connections between Delta Charter Township and adjacent communities and regional destinations.

Objective C. Continue to update the Non-Motorized Transportation Plan every five years.

- Update the Priority Plan being projects envisioned in the next 10 years
- Provide a Phasing Plan of the network

Objective D. Provide a complete non-motorized network plan.

- Bike lanes/paved shoulders, shared use paths, shared roads, safe crossings, and a Sidewalk Plan.
- Appropriate identification and wayfinding signage
- Connections to public transportation
- Acknowledge the Delta Township Sidewalk Plan
- Work with the Eaton County Road Commission

Objective E. Evaluate funding options for implementing the non-motorized network.

GOAL 2. Enhance Opportunities to Improve the Health of the Community

- Objective A.** Provide non-motorized routes to reduce vehicle trips.
- Objective B.** Encourage physical activity by providing opportunities to walk and bike.
- Objective C.** Increase the number of people walking and bicycling.
- Objective D.** Improve air quality by offering non-motorized routes as alternatives to auto trips.

GOAL 3. Improve pedestrian and bicycle safety

- Objective A.** Provide opportunities for everyone to use the non-motorized transportation system regardless of socio-economic status or physical abilities.
- Objective B.** Reduce the number of bicycle and pedestrian crashes.
- Objective C.** Improve safety of pedestrians and bicyclists at busy roads and intersections.
- Objective D.** Provide safe options for pedestrians and bicyclists to cross roadways.
- Objective E.** Improve the education of motorists in regards to pedestrians and bicyclist issues through the Township’s website, magazine and pamphlets.
- Objective F.** Improve the education of pedestrians and bicyclists in regards to rules of the road, motorists concerns, and safe travel by working with the road commission to develop pamphlets, websites and bicycle safety clinics.
- Objective G.** Provide appropriate lighting on non-motorized routes along roadways.
- Objective H.** Utilize current best practices in design and incorporate best practices in standard plans and details.
- Objective I.** Maintain safe non-motorized facilities in a cost effective manner.
 - Consider maintenance costs, materials and new technologies prior to implementing non-motorized facilities.
 - Provide for maintenance in the annual budgeting process.
 - Plow the snow on Township pathways and enforce snow removal regulations on sidewalks in road right of ways.

GOAL 4. Institute changes supporting the health, safety and welfare of the Township that lead to a pedestrian and bicycle friendly community

Objective A. Enhance the quality of life by continuing the development of the non-motorized transportation system.

Objective B. Identify and promote community assets: greenways, walkable/bikeable community, residential neighborhoods, schools and retail areas.

Objective C. Establish family friendly non-motorized facilities (neighborhood routes to parks and schools).

Objective D. Create a guide map of pedestrian and bicycle facilities, walking and biking routes, and safety topics. Distribute and post on the Township website.

Objective E. Enhance the sense of community through increased social interaction between non-motorized transportation users.

Objective F. Employ context sensitive design principals and review privacy, access and beautification issues.

Objective G. Obtain citizen input during the public planning process and before and after the implementation of projects.

- Gather public input during update of the plan.
- Gather public feedback on existing facilities.
- Gather public input prior to new routes or projects.

Objective H. Evaluate, update or add ordinances

- Consider an ordinance to require bike parking
- Evaluate sidewalk ordinance and consider increasing the minimum width to 6’.
- Consider developing a Complete Streets Ordinance with the County Road Commission.

Objective I. Work with EATRAN to provide bike racks on buses.

Objective J. Improve aesthetics of the area’s transportation system (street trees, benches, landscaping, etc.).

Objective K. Work with Eaton County Road Commission to develop a street tree program.

Objective L. Provide input to Eaton County Road Commission regarding Act 51 spending on non-motorized transportation projects.

Sidewalk Plan

The sidewalk plan shows existing and proposed sidewalks in the Township. It is the goal of the sidewalk plan to complete sidewalk connections between other non-motorized transportation routes, destinations and neighborhoods. It is recommended that the sidewalk plan be completed in conjunction with future road improvements and non-motorized transportation improvements. It is also recommended that future residential development include sidewalks to provide connections between neighborhoods and main non-motorized transportation routes.

Non-Motorized Transportation Plan

Township officials have determined that the need for north-south, east-west routes is still relevant. Due to the implementation of several routes since 2005, priority routes have changed and other routes have become redundant. The revised plan, illustrated on Map 17a, reflects a focus on three major types of routes:

1. **Bike Lanes/ Paved Shoulders** - Used along road corridors only.
2. **Shared Use Paths** - Used primarily in off-road situations and along roads with few driveway or road intersections.
3. **Shared Roads** - Used on residential streets with little traffic and speed limits of 25 miles per hour or less. Used as connections between other routes.

Priority Routes

Specific Priority Routes Found On The Non-Motorized Transportation Plan Include:

Parks

The Township’s Five-Year Parks and Recreation Master Plan identifies non-motorized trails within the Township parks for future capital improvements. To reflect this, the Non-Motorized Transportation Plan identifies loop trails in developed Township parks as a priority.

North Grand River Corridor

In the northern third of the Township, the east-west routes shown connect parks and schools primarily along and around the Grand River corridor. They include Willow Highway and the East-West Pathway. North-south routes connect east-west routes with public service and commercial destinations along Saginaw Highway including the Township Offices and the Lansing Mall. A shared use path connection between Hunter’s Orchard Park and Hawk Meadows Park has been identified as a priority connection. Improvements between Creyts Road and Hawk Meadows Park include intersection improvements, mid-block crossings and a widening of the Webster Road bridge over the Grand River.

East-West Pathway

Improvements along the East-West Pathway include obtaining easements between Nixon Road and Marketplace Boulevard and between Elmwood Road and Willow Highway. Mid-block crossings are also needed at Creyts Road, and Elmwood Road.

Saginaw Highway

Saginaw Highway is a high vehicular volume east-west corridor in Delta Township. Due to the heavy traffic, it is recommended that non-motorized transportation along this road be limited to sidewalks. West of Broadbent Road, sidewalks and an existing bike lane/paved shoulder is recommended. To safely provide bicycle connections to north-south routes from Saginaw, several intersection improvements are recommended, including Nixon Road, Canal Road, Elmwood Road and Waverly Road.

St. Joseph Highway/ Michigan Avenue

The St. Joseph Highway and Michigan Avenue corridors were determined to be a priority due to the number of neighborhoods they connect. These streets are identified in the Lansing Township and City of Lansing Non-Motorized Transportation Plans as connections to Delta Township.

North-South Routes

The priority north-south routes through the Township were identified because they connect destinations along the routes and for their proximity to neighborhoods. These routes include Nixon Road, Canal Road, Elmwood Road/Snow Road and Waverly Road. Canal Road and Elmwood Road/Snow Road were identified as one of the top priorities due to their centralized locations and the connections they provide to neighborhoods, shopping centers and parks.

South Grand River Corridor

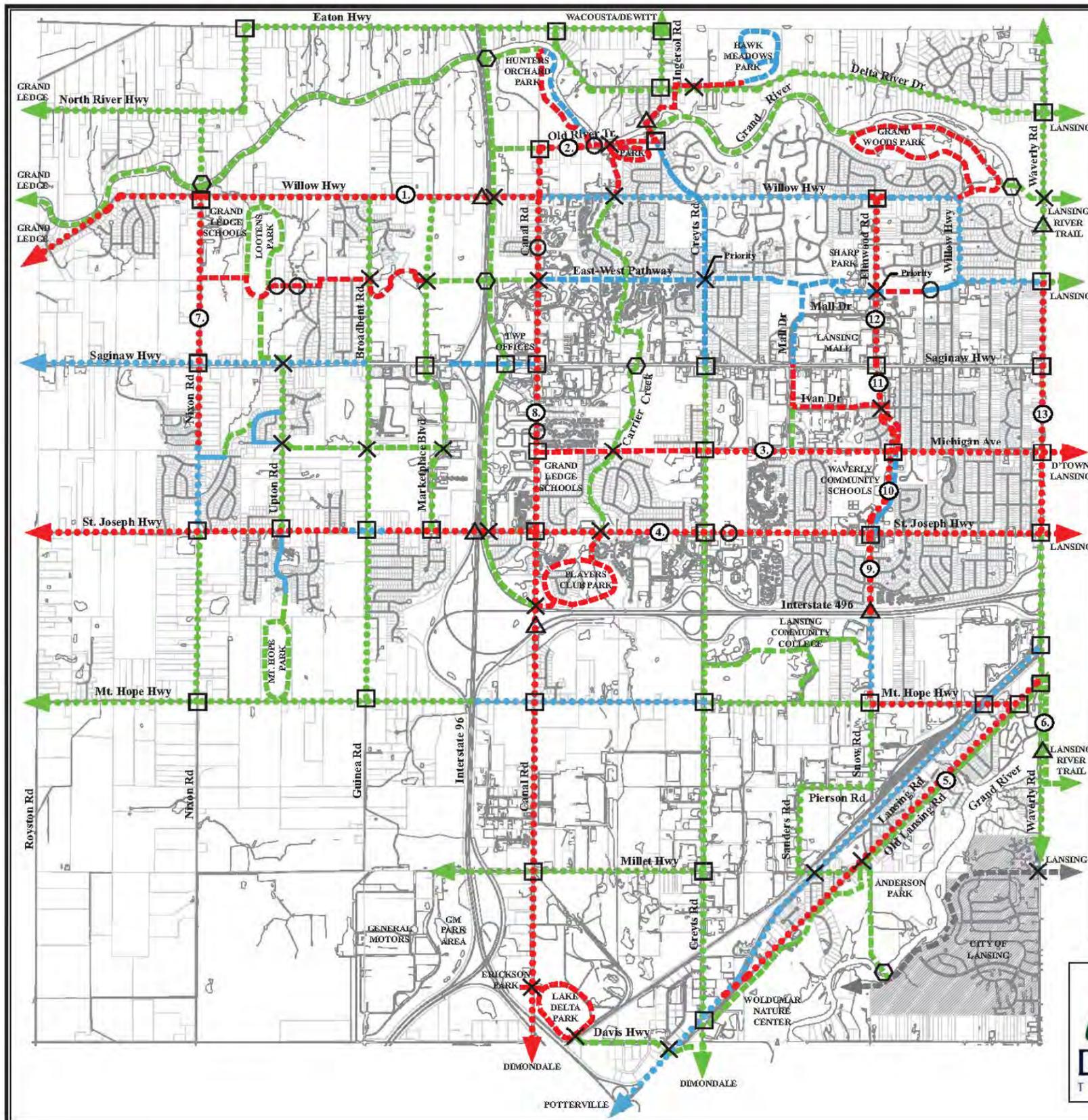
The Lansing Non-Motorized Transportation Network identifies an extension of the Lansing River Trail along the Grand River continuing southwest into Delta Township. In order to provide a connection from the Lansing River Trail to Delta Township destinations, a connection along Waverly Road to Mt. Hope Highway and Old Lansing Road is identified as a priority. These connections will serve as access points to the Lansing River Trail, Anderson Park and Woldumar Nature Center.

Implementation Strategies and Other Considerations

Refer to the full Non-Motorized Transportation Plan document, found in the appendix to this Comprehensive Plan, for complete coverage of the background, goals, plan recommendations, implementation strategies, maintenance, funding strategies, and similar details.

Conclusion

A thorough review of the 2005 Delta Township Non-Motorized Transportation Study, followed by opportunities for citizen input, has culminated in the 2012 Non-Motorized Transportation Plan. It is the Township's intention to adopt the 2012 Non-Motorized Transportation Plan as a functional element or chapter of the Township's Comprehensive Plan, per Section 39 of the Michigan Planning Enabling Act. Copies of the 2012 Non-Motorized Transportation Plan chapter were provided to all of the local communities abutting Delta Township for their review and comment.



Non-Motorized Transportation Plan

LEGEND

- Intersection Improvement
- Pedestrian Bridge/Underpass
- △ Widen Bridge
- × Mid-Block Crossing
- Priority Easement

Existing Facilities

- Bike Lanes/ Paved Shoulders
- Shared Use Path
- Shared Road

Priority Facilities (2012-2021)

- Bike Lanes/ Paved Shoulders
- Shared Use Path

Future Facilities (2022 and beyond)

- Bike Lanes/ Paved Shoulders
- Shared Use Path

Notes:

Sidewalks exist on Saginaw Hwy from Broadbent Rd to Waverly Rd.
See Sidewalk Plan for other existing and proposed sidewalk facilities.

SPECIFIC ROUTE DETAILS

East-West Route Details

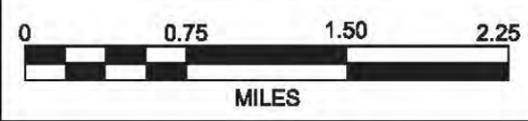
- ① Willow Hwy - pave shoulders, add sidewalk and pedestrian bridge over I-96
- ② Old River Tr - pave shoulders, add sidewalk
- ③ Michigan Ave - lane conversion, add sidewalk
- ④ St. Joseph Hwy - lane conversion, add sidewalk
- ⑤ Old Lansing Rd - add bike lane and shared use path
- ⑥ Waverly Rd - add shared use path

North-South Route Details

- ⑦ Nixon Rd - pave shoulders, add sidewalk
- ⑧ Canal Rd - pave shoulders, add sidewalk and pedestrian bridge over I-496
- ⑨ Snow Rd - stripe road for bike lane
- ⑩ Snow Rd - narrow lanes to add bike lane
- ⑪ Elmwood Rd - lane conversion, add sidewalk
- ⑫ Elmwood Rd - lane conversion, add sidewalk
- ⑬ Waverly Rd - lane conversion or widen road, add sidewalk



April 23, 2012



17a

Intentionally Blank

Chapter 10

Action Strategies

ACTION STRATEGIES

NEXTSTEPS	Short Term	Long Term	Ongoing	Implementation Leader
Residential Growth & Development: Provide for residential development that will address the needs of all segments of the population while preserving existing neighborhoods and providing adequate room for growth.				
Pursue the preservation of older residential neighborhoods through code enforcement, support of the rental housing inspection program, investments in public infrastructure, and the provision of adequate services.	2	1	7	
Encourage residential development in locations possessing adequate infrastructure which are in close proximity to services and transportation facilities.	3	2	5	
Provide regulations permitting a range of housing types accommodating various income and age groups.	2	3	4	
Enhance the livability of residential areas by insuring that they're walkable, possess adequate open space and are compatible with adjacent non-residential areas	3	2	5	
Review the Low Density Residential classification and the corresponding RB & RC zoning districts and consider expanding the permitted uses including, but not limited to granny flats, attached dwellings, permitting some SLU Permit uses as "By Right" uses subject to performance standards, etc.				
Conduct a study of the existing Comprehensive Plan land use categories and the zoning ordinance districts to determine the possible merit for the creation of a "medium density" residential classification/district providing a density of 5 to 8 units per acre.				
Partnership Strategies				

NEXTSTEPS	Short Term	Long Term	Ongoing	Implementation Leader
Commercial Growth & Development: Provide adequate areas to provide commercial facilities appropriately sized and situated to serve neighborhood, community and regional needs.				
Continue efforts to address the decline of commercial properties on West Saginaw Highway east of Elmwood Road by reducing vacancies, recruitment of new businesses, and appropriate code enforcement.	5	0	5	
Encourage infill development and/or the redevelopment of commercial properties where adequate infrastructure exists.	6	1	3	
Ensure that commercial development is compatible with adjacent residential land uses by addressing issues related to lighting, traffic, parking, signage, noise and landscaping.	4	0	6	
Limit new commercial development on West Saginaw Highway to areas east of Broadbent Road.	3	4	2	
Explore the possibility of creating a single commercial zoning district to replace the existing two districts.	6	3	0	
Partnership Strategies				

ACTION STRATEGIES

NEXTSTEPS	Short Term	Long Term	Ongoing	Implementation Leader
Industrial Growth & Development: Provide sufficient area for new industries while retaining existing industrial land uses which provide employment opportunities and diversify the Township’s tax base.				
Prevent incompatible land uses from encroaching on existing and planned industrial areas.	2	3	5	
Maintain and expand the infrastructure serving the Township’s industrially zoned properties.	3	2	5	
Promote the extension of public utilities to serve planned industrial development on the 100 acre “triangle” area in section 33 bordered by Davis Highway.	6	4	0	
Continue to provide for an Economic Development Coordinator who can serve as a liaison to business and industry.	4	2	4	
Partnership Strategies				

NEXTSTEPS	Short Term	Long Term	Ongoing	Implementation Leader
Public Services & Facilities: Provide adequate public services and facilities to Township residents, businesses and industry.				
Continue to insure that the provision of public services, including public water and sanitary sewer service, are concurrent with new development.	1	1	8	
Continue to provide law enforcement & fire protection services sufficient to meet the Township's needs.	2	0	8	
Continue to support Capital Improvements Programming which plans for public improvements in advance, prioritizes projects to maximize benefits and assists in implementation of the Comprehensive Plan.	1	2	7	
Explore the possibilities of partnering/collaborating with other communities regarding public services.	5	1	4	
Initiate a policy of Universal Accessibility by applying the principles of universal design thereby maximizing access and utility by all segments of the population across all geographic areas; representing both persons with and without disabilities.				
Partnership Strategies				

ACTION STRATEGIES

NEXTSTEPS	Short Term	Long Term	Ongoing	Implementation Leader
Economic Development: Create a sustainable, growing, and diversified economy for Delta Township.				
Continue to support economic development efforts which support business attraction, retention and expansion. Such efforts would include retention calls on existing businesses/ industries, the marketing of vacant buildings/properties in the Township, and implementation of a computer software program which provides a data base to facilitate communication with businesses.	3	0	7	
Cooperate/Collaborate with the Township’s economic development partners including the Lansing Economic Area Partnership (LEAP), the Lansing Regional Chamber of Commerce and the Michigan Economic Development Corporation.	4	0	6	
Provide financial incentives to new & existing industries as the Township Board finds appropriate.	3	5	2	
Analyze economic development “tools” which will provide the greatest benefit to the Township.	4	2	4	
Take advantage of economic development grants which the Township may qualify for.	3	0	7	
Partnership Strategies				

NEXTSTEPS	Short Term	Long Term	Ongoing	Implementation Leader
Transportation: Support efforts to provide adequate transportation modes which are safe, efficient and fiscally sound.				
Support the Eaton County Road Commission, who has jurisdiction over 90% of the Township’s roads, by providing local “match” dollars for major road projects, financially participating in the annual street resurfacing program and obtaining needed rights of way during the site plan review process.	2	2	5	
Continue the dialogue with the Michigan Department of Transportation regarding West Saginaw driveway closures, improvements to overpasses on I-96 & I-496 and the establishment of a boulevard on West Saginaw Highway west of I-96.	5	5	0	
Support the concept of Complete Streets that safely accommodate motorized and non-motorized vehicles and pedestrians and explore topics including road “diets” and the provision of bike lanes.	3	4	3	
Support efforts to improve public transit service in Delta Township.	4	3	3	
Continue efforts to make Delta Township a more walkable community by routinely repairing sidewalks, filling in gaps in the sidewalk system, expanding the sidewalk system, and providing a network of shared use paths.	3	1	6	
Respond to public concerns relating to traffic speeds and volumes in residential neighborhoods.	6	0	4	
Provide input to the Tri-County Regional Planning Commission during their periodic updates of the Regional Transportation Plan.	4	2	4	
Explore the necessity of the Nixon Road Bridge Project with input from the Eaton County Road Commission and Township staff.				
Partnership Strategies				

ACTION STRATEGIES

NEXTSTEPS	Short Term	Long Term	Ongoing	Implementation Leader
Environment & Sustainability: Protect the quality of the Township’s natural resources and environmentally sensitive areas.				
Promote planning efforts to protect the natural environment, being the land, water and air.	4	0	6	
Continue efforts to reduce the environmental impacts of Township facilities and the provision of services.	2	1	7	
Continue Deleafing Days at the Recycling Site and the capping of private wells as finances permit.	3	2	5	
Participate in Tri-County Regional Planning Commission’s environmental initiatives including Greening Mid-Michigan (A regional vision for greening infrastructure planning), Wellhead Protection Committee and the Greater Lansing Regional Committee (GLRC) for Stormwater Management (Implementation of the Phase II Stormwater Program).	1	3	5	
Investigate the possible adoption of a Stormwater Management Ordinance.	8	2	0	
Investigate the possible adoption of a Wetlands Protection Ordinance.	7	3	0	
Investigate the possible adoption of Open Space preservation programs.	5	5	0	
Partnership Strategies				

NEXTSTEPS	Short Term	Long Term	Ongoing	Implementation Leader
Parks & Recreation: Provide adequate recreational programs and facilities for active and passive use by residents.				
Prepare development plans for Mt. Hope Park, the Players Club property and a canoe launch on the Grand River at the Willow Highway property.	6	4	0	
Upgrade existing parks as identified in the Parks & Recreation Plan.	5	2	3	
Provide linkages between residential areas and park facilities as well as non-motorized access between parks whenever reasonably feasible.	4	3	3	
Continue to foster partnerships with the Grand Ledge & Waverly Schools in sharing and supplementing recreational programs & facilities.	1	1	8	
Continue to seek public input as to the community's needs for recreation programs & facilities.	2	1	7	
Partnership Strategies				

ACTION STRATEGIES

NEXTSTEPS	Short Term	Long Term	Ongoing	Implementation Leader
Land Use Planning: Continue to provide a land use planning program providing for managed growth while encouraging reinvestment in older areas of the Township.				
Maintain and expand practices that educate and promote continuous opportunities for broad citizen and stakeholder participation in all land use planning efforts.	1	2	7	
Review the Township's Comprehensive Plan every five years and have the Planning Commission update the Plan as necessary.	2	2	6	
Encourage efforts to keep the Township's land use regulations, including the Zoning Ordinance, up to date and legally defensible.	4	0	6	
Continue to review land development requests using an established, equitable and expedient process which is fair to all parties.	2	1	7	
Support the Tri-County Regional Planning Commission's planning programs including implementation of the 2005 Regional Growth: Choices for Our Future Plan and the Urban Services Management Study of 2011.	0	5	5	
Explore the benefits of adoption of Smart Growth concepts in the Township's planning efforts including the reuse of existing structures and in-fill development.	7	0	3	
Expand communication efforts with adjacent communities in an attempt to reach common understandings regarding land use issues.	2	2	6	
Explore the use of planning and zoning "tools" such as Conditional Zoning, Overlay Districts, Form-Based Zoning, and Planned Unit Developments, etc. to facilitate development/redevelopment efforts.				
Partnership Strategies				

Implementation Leader Examples:

Township Board
 Planning Commission
 Community Development Department
 Parks & Recreation Commission
 Utilities Department

County Road Commission
 Traffic Consultant
 Planning Consultant
 Delta Township Economic Development Corporation