SUMMERFIELD TOWNSHIP MASTER PLAN UPDATE 2018



PREPARED BY Summerfield Township

Supervisor

John Chandler

Clerk

Trudy Goodin

Treasurer

Joan Wiederhold

Trustees

Dan Curley Gary Missler

Planning Commission

Amy Reiter, Chair David Grude, Vice Chair & Secretary Dick Koraleski Gary Missler Joe Stanger Adopted by a resolution of the Summerfield Township Planning Commission on July 9, 2018, after holding a public hearing on July 9, 2018.

Supported by a resolution of concurrence of the Summerfield Township Board of Trustees on July 16, 2018.

Assistance Provided By:



SUMMERFIELD TOWNSHIP PLANNING COMMISSION RESOLUTION OF ADOPTION: SUMMERFIELD TOWNSHIP MASTER PLAN UPDATE 2018

The following Resolution was offered by Commissioner Amy Reiter and seconded by Commissioner Joe Stanger:

WHEREAS, Summerfield Township, Monroe County, Michigan has a duly constituted Planning Commission whose responsibilities under the Michigan Planning Enabling Act, Public Act 33-of 2008, as amended, include the preparation of a Master Plan to guide future land use development in the community; and,

WHEREAS, the Township Planning Commission did issue its notice of intent to prepare a plan in accordance with Section 39, (2) of Public Act 33; and,

WHEREAS, the Township Planning Commission has worked with the consultants at Wade Trim to oversee a planning process that included opportunities for public input as well as investigations and surveys of existing resources; and,

WHEREAS, a draft plan was prepared by the Planning Commission and presented to the Township Board in accordance with Section 41, (1) of Public Act 33, and the Township Board approved the distribution of the draft plan for review and comment pursuant to Section 41, (2) of said Act; and,

WHEREAS, after expiration of a 63 day review and comment period, the Summerfield Township Planning Commission did give notice of a public hearing on the draft plan in accordance with Section 43, (1) of Public Act 33, with such public hearing being held on July 9, 2018;

NOW THEREFORE BE IT RESOLVED THAT, the contents of the draft plan, dated February 6, 2018, with revisions as discussed during the July 9, 2018 Planning Commission meeting, is hereby adopted by the Summerfield Township Planning Commission in accordance with Section 43, (2) of Public Act 33 by not less than a majority of its membership.

AYES: David Grude, Gary Missler, Amy Reiter, Joe Stanger

NAYS:

ABSENT: Dick Koraleski

I, David G. Grude, Secretary of the Summerfield Township Planning Commission, do hereby certify the foregoing to be a true and correct copy of a resolution that was adopted by the Summerfield Township Planning Commission at their regular meeting held on July 9, 2018.

Daniel J. Suide Signature

SUMMERFIELD TOWNSHIP BOARD OF TRUSTEES RESOLUTION OF CONCURRENCE: SUMMERFIELD TOWNSHIP MASTER PLAN UPDATE 2018

Resolution Number: 2018-002

The following Resolution was offered by Board Member Chandler and seconded by Board Member Curley.

WHEREAS, Summerfield Township, Monroe County, Michigan has a duly constituted Planning Commission whose responsibilities under the Michigan Planning Enabling Act, Public Act 33 of 2008, as amended, include the preparation of a Master Plan to guide future land use development in the community; and,

WHEREAS, the Township Planning Commission has worked with the consultants at Wade Trim to oversee a planning process that included opportunities for public input as well as investigations and surveys of existing resources; and,

WHEREAS, the Summerfield Township Planning Commission did give notice of a public hearing on the draft plan in accordance with Section 43, (1) of Public Act 33, with such public hearing being held on July 9, 2018;

WHEREAS, The Summerfield Township Planning Commission did review the proposed plan, consider public comment, and adopt the Summerfield Township Master Plan Update 2018 by resolution on July 9, 2018; and,

WHEREAS, The Summerfield Township Board of Trustees supports the recommendations and proposals contained in the adopted master plan pertinent to the future development of the Township;

NOW THEREFORE BE IT RESOLVED THAT, The Summerfield Township Board of Trustees does hereby concur with the action of the Township Planning Commission by means of the passing of this resolution, hereby adopted this 16th day of July, 2018.

AYES: Chandler, Curley, Missler, Wiederhold & Goodin

NAYS: -0-

ABSENT:

I, Trudy Goodin, Clerk of Summerfield Township, do hereby certify the foregoing to be a true and correct copy of a resolution that was adopted by the Summerfield Township Board of Trustees at their regular meeting held on July 16, 2018.

Summerfield Township Clerk

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INTRODUCTION

AUTHORITY

Townships first came into existence in Michigan through the Northwest Ordinance passed in 1787. Townships are typically 36 square miles (6 miles wide by 6 miles long) in area; however, the size of some townships may deviate from this standard (for instance Summerfield Township is approximately 40 square miles). According to Michigan Legislation, there are two forms of townships: General Law and Charter. The biggest distinction between a General Law Township and a Charter Township lies in their ability to levy taxes and their source of revenue. Charter Townships have the ability to levy taxes without the vote of the people. However, General Law Townships are funded mainly through State Shared Revenues and do not have the ability to levy taxes on their residents without the vote of the people. Summerfield Township is a General Law Township.

Summerfield Township derives its authority to update its Master Plan from the Planning Enabling Act, Public Act 33 of 2008, Section 31.(1), which states the following:

"A Planning Commission shall make and approve a master plan as a guide for development within the planning jurisdiction..."

Section 31.(2), of the act states that in the preparation of a Master Plan, a Planning Commission shall:

"(a) Make careful and comprehensive surveys and studies of present conditions and future growth within the planning jurisdiction with due regard to its relation to neighboring jurisdictions; (b) consult with representatives of adjacent local units of government in respect to their planning so that conflicts in master plans and zoning may be avoided; and, (c) cooperate with all departments of the state and federal governments and other public agencies concerned with programs for economic, social, and physical development within the planning jurisdiction and seek the maximum coordination of the local unit of government's programs with these agencies."

PURPOSE

The planning process is designed to involve conscious selections of policies relating to growth and development in a community. The master plan serves to promote these policies through the following:

- 1. Provides a general statement of the Township's goals and provides a comprehensive view of the communities preferred future.
- 2. Serves as the primary policy guide for local officials when considering zoning, land division, capital improvement projects and any other matters related to land development. Thus, the master plan provides a stable and consistent basis for decision making.
- 3. Provides the legal foundation for the Township's Zoning Ordinance, as required by the Zoning Enabling Act, Public Act 110 of 2008.
- 4. Helps to coordinate public improvements and private development activities to assure the judicious and efficient expenditure of public funds.

Update of 2005 Master Plan

This report is an update to the Summerfield Township Master Plan, originally adopted by resolution of the Township Planning Commission on November 14, 2005 and updated on April 11, 2011. Various revisions have been incorporated throughout the report to reflect changes within the Township that have occurred since 2011 and the desires of the Planning Commission, Township officials and citizens as revealed during the planning process. The Summerfield Township Master Plan Update 2018 was ultimately adopted by resolution of the Township Planning Commission on July 9, 2018.

MASTER PLAN ORGANIZATION

The Master Plan Update 2018 is comprised of three primary categories: background studies; goals and objectives; and the future land use plan for the Township. The background studies lay the framework for the Master Plan by providing the social, economic and environmental conditions of the Township. The goals and objectives chapter will be utilized as a guidebook for the decision-makers in the Township. Finally, the future land use plan is the vision of the Township, which will be realized through the implementing the desired goals and objectives.

Differences and Relationships between the Master Plan and Zoning Ordinance

Zoning is the basic means for controlling the classification and regulation of land use. It is binding law. The Zoning Ordinance controls land uses based on contemporary conditions. Zoning divides the community into districts, or zones, and imposes different land use controls on each district, specifying the allowed uses of land and buildings, the intensity or density of such uses, and the bulk of buildings on the land.

The Master Plan, on the other hand, is a set of policies, not laws. While the Zoning Ordinance and Zoning Map regulate current and proposed land use, the Master Plan and its maps and policy statements are intended to guide land use and decision-making over the long term. The Master Plan is the community's "vision", while the Zoning Ordinance governs the pathways to achieving that vision. Michigan law requires that the Zoning Ordinance be based on a Master Plan. Consequently, the Master Plan provides the foundation upon which zoning decisions are ultimately made. With an adopted Master Plan, those zoning decisions consistent with the plan are typically considered valid by the courts.

REGIONAL ANALYSIS

Summerfield Township is not an isolated community. Therefore, the Master Plan needs to acknowledge the Township's regional context. Through recognition of regional conditions and trends, this Master Plan will be more realistic and reasonable in terms of guiding the future utilization of land resources within the Township.

REGIONAL LOCATION

Summerfield Township is located within Monroe County, in the extreme southeastern corner of Michigan. The City of Petersburg is located within the northern portion of Summerfield Township. Adjoining communities include Whiteford Township to the south, Ida Township to the east, Dundee Township to the north, and Deerfield Township (Lenawee County) to the west.

Monroe County, located along the Michigan-Ohio border, is positioned between the major cities of Detroit, Michigan to the north and Toledo, Ohio to the south. The U.S. Census Bureau classifies Monroe County as part of the Detroit PMSA (Primary Metropolitan Statistical Area) with a total population of more than four million people. However, the western portion of Monroe County, where Summerfield Township is located, is primarily a rural and agricultural area and has not yet experienced significant encroachment by urban and suburban growth extending from Detroit or Toledo.

REGIONAL TRANSPORTATION

Because of Monroe County's location in-between Detroit and Toledo, several major transportation arteries connecting the two urban centers pass through the region. Regional freeways include Interstate 75, Interstate 275, and U.S. 23. These freeways all run north/south and carry a high volume of traffic, as is verified by the Michigan Department of Transportation 2003 State Traffic Map. Average daily traffic on I-75 within Monroe County ranges

between 50,000-75,000 vehicles, while I-275 carries approximately 30,000 vehicles, and U.S. 23 carries between 30,000-40,000 vehicles.

Other state and federal highways within Monroe County include U.S. 24, U.S. 223, M-50, and M-125.

These major transportation routes effectively connect Summerfield Township and Monroe County with the rest of the State and entire Midwest. Driving times and distances to major destinations are provided in Table 1.

Table 1: Driving Times and Distances

Destination	Aproximate Distance	Estimated Driving Time
Toledo, OH	25 mi.	30 min.
Detroit, MI	65 mi.	1 hr., 5 min.
Flint, MI	85 mi.	1 hr., 30 min.
Lansing, MI	100 mi.	1 hr., 40 min.
Cleveland, OH	140 mi.	2 hrs., 20 min.
Columbus, OH	165 mi.	3 hrs.
Chicago, IL	250 mi.	4 hrs.

Source: Mapquest driving times and distances from Petersburg, MI to selected destinations.

¹Census 2000 PHC-T-3. Ranking Tables for Metropolitan Areas: 1990 and 2000. U.S. Census Bureau.

REGIONAL COMMERCIAL AND INDUSTRIAL CENTERS

Located just north of Summerfield Township, at the U.S. 23 and M-50 interchange is the Village of Dundee. Within the Village is a Cabela's store, which would be considered the most significant commercial development in the region. This outdoor hunting and fishing goods store has actually become the largest tourist attraction in the State of Michigan by attracting more than six million visitors per year. The store's construction has already impacted the local economy as evidenced by the development of several new commercial, industrial, and residential uses in the Dundee area.

Another new development potentially impacting Summerfield Township is the construction of two Global Engine plants, both to be located just north of the Township in Dundee. When at full production, the facilities will be producing 840,000 four-cylinder engines for small and mid-sized vehicles per year. The plants are anticipated to bring in hundreds of new jobs to the area. Currently, Global Engine employs 155 people.

Due to its location along U.S. 23, and its proximity to the Cabela's store and the Global Engine plants, Summerfield Township will most likely experience increased development pressures in the long-term future. The goals and future land use objectives of the Township will need to be proactive in addressing these possible growth demands.

PLANNING IN LOCAL COMMUNITIES

The Southeast Michigan Council of Governments (SEMCOG) catalogues local future land use planning information through the preparation of a region-wide Generalized Local Plans Map. This map uses general future land use categories that are applied across all of the municipalities within the region, and helps to show where certain land uses are planned. This map is especially relevant in that it is able to show where planned land use conflicts exist between neighboring communities.

The 2001 Generalized Local Plans map prepared by SEMCOG shows the future land use categories for the neighboring communities of the City of Petersburg, Whiteford Township, Ida Township, and Dundee Township. This future land use information will be helpful for Summerfield Township to ensure compatibility with the surrounding communities when planning for its own future land uses. Please see the Adjacent Future Land Uses Map, Map 2.

Whiteford Township

Whiteford Township is located south of Summerfield Township. The vast majority of lands in the Township are planned for Agricultural/Rural Residential uses, especially in the Township's northern portion. Higher intensity residential, commercial, and industrial uses are predominantly found in the southern portion of the Township.

Ida Township

Ida Township is located east of Summerfield Township. Currently, the western portion of the Township along the border with Summerfield Township is planned for Low Density Residential Use. This use designation is compatible to many of the residential land uses and densities found along Summerfield's eastern border during the existing land use survey. The majority of the rest of the lands in Ida Township are planned for Agricultural/Rural Residential uses.

Dundee Township

Dundee Township is located north and northeast of Summerfield Township. The majority of the lands in the western part of the Township, including areas along the northern Summerfield Township border, are planned for Agricultural/Rural Residential use. Low Density Residential uses are planned in areas northeast of Summerfield Township, extending towards the Village of Dundee. Higher intensity commercial, industrial, and residential uses are found in the Village of Dundee.

City of Petersburg

The City of Petersburg is completely encircled by Summerfield Township. Nearly all of the lands in the City are planned for Low Density Residential uses. A small area of lands planned for commercial uses are found in the City's central business district.

Deerfield Township

The Township currently does not have a Zoning Ordinance or Master Plan.

Village of Deerfield

The Village has both a local Zoning Ordinance and Master Plan.



NATURAL FEATURES

The natural environment is a significant factor when planning for future land development. For example, circumstances such as steep slopes may hinder the construction of a building, while the presence of wetlands may affect the desired layout of a subdivision. Alternatively, the natural environment can be impacted by land development. An example would be the increased water runoff and erosion potential caused by clearing vegetation. Thus, when preparing the Master Plan, it is important to examine the natural environment in order to determine where development is best suited, and where it should be discouraged.

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

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

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

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

Climate, geology, woodlands, wetlands, topography, and soil associations are among the most important natural features impacting land use in Summerfield Township. Descriptions of these features follow.

CLIMATE

The climate of Monroe County is seasonal; the region experiences considerable changes in temperatures and precipitation throughout the year. The temperature range for Monroe County in January averages between 17 and 32 degrees Fahrenheit, in July it averages between 63 and 84 degrees Fahrenheit. The average number of days below zero degrees Fahrenheit is 6, while the average number of days above 90 degrees Fahrenheit is 16. The average growing season in Monroe County lasts 180 days. In terms of annual precipitation, Monroe County averages 31 inches of rainfall and 33 inches of snowfall per year.¹

¹Monroe County Profile. Michigan Economic Development Corporation, 1995 climate data. http://medc.michigan.org/miinfo/places/MonroeCounty/?section=all.

GEOLOGY

Geology for Summerfield Township can be described in terms of Surface (Quaternary) Geology and Bedrock Geology.

Surface geology is the study of the features and sediments on the outermost layer of the Earth's surface. Michigan's surface features and sediments are largely the result of glacial action within the last 15,000 years. During this time, glaciers scoured out the Great Lakes and dumped piles of debris (moraines) along their edges leaving flat plains of clay-rich soils (glacial till) where the glaciers died and melted in place. Glacial melt waters formed vast rivers that built wide, sandy plains of outwash. Many of our inland lakes were created when blocks of ice fell off the glacier, became covered by debris and eventually left a hole (kettle) when the block melted. Ridges of sand and gravel called eskers show us places where rivers that started under the ice emerged from the front of the glacier. Drumlins, or egg-shaped hills, were carved by the bottom of the glacier after it had moved across older deposits. The advance and retreat of the glaciers also caused the Great Lakes to rise and fall by blocking and opening, respectively, various river outlets. The Great Lake levels we know today were established only in the last 2,300 years.

In the Summerfield Township area, as well as the majority of Monroe County, the surface geology consists primarily of Lacustrine sediments, or those sediments left behind as the Great Lakes shoreline receded. These Lacustrine sediments include clay, silt, sand and gravel.

Bedrock Geology is the study of solid rock at or near the earth's surface. Bedrock is generally concealed by an unattached layer of loose fragmented rock. This loose material may have formed in place by decomposition of the underlying parent bedrock or it may be an accumulation of foreign rock fragments deposited by wind, water or ice (in the form of glaciers). Over most of the state, bedrock is buried beneath glacial deposits (drift). In a number of places, however, especially in the western Upper Peninsula and along the Great Lakes shores in the north, bedrock protrudes through the mantle of drift.

The entire Southern Peninsula of Michigan is underlain by rocks of the Paleozoic Era. This era is represented by a wide variety of strictly sedimentary rocks that were deposited during several periods. The majority of the bedrock formations in the Monroe County area were formed during the Silurian Period. Typical rocks in this period include: limestone, reef limestone, dolomite, shale, and evaporates (rock salt, rock gypsum, rock anhydrite, potash-salt rocks).

²Various Sources. Geology in Michigan, Michigan Department of Environmental Quality. September 2004. Http://www.michigan.gov/deq/0,1607,7-135-3311_3582—,00.html.

The knowledge and understanding of geology is of fundamental importance to land management. This knowledge helps to make responsible land use decisions concerning such things as the availability and use of natural minerals and resources, soil fertility, erosion potential and drainage, suitability of land for agriculture or building construction, and protection of ground water resources.²

WOODLANDS

Woodlands information for Summerfield Township is derived from the Michigan Resources Information System (MIRIS) 1978 Land Use Cover Data provided by the Michigan Geographic Data Library (MiGDL). Using 1998 aerial photographs, also provided by the MiGDL, the woodlands information was updated to reflect any new woodland clearing due to urban development. The MIRIS land use is meant to show the major concentrations of woodland areas, and does not include smaller woodland concentrations or clusters of trees found in urban areas. The MIRIS land use data separates woodlands into several categories based on the woodland types or tree species. Two woodland types are currently found in the Township including:

- Lowland Hardwood
- Central Hardwood

Lowland Hardwood trees include ash, elm, soft maple, cottonwood, aspen and white birch. Central Hardwood tree species include red oak, white oak, black oak, and hickory trees. The Environmental Resources Map (Map 3) shows the general locations of these woodland types in Summerfield Township.

In general, woodlands of both types are more prevalent in the eastern half of the Township, particularly along both sides of the U.S. 23 freeway. In this half of the Township, it is fairly



common to find groups of woodlands well over 80 acres in size. Larger areas of wooded lands can also be found within the western half of the Township, but are more infrequent. In total, approximately 3,540 acres of Summerfield Township is covered by woodlands (1,840 acres of Central Hardwoods and 1,700 acres of Lowland Hardwoods). With an approximate land area of 27,350 acres, this woodland coverage equates to approximately 13 percent of Summerfield Township.

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

WETLANDS

Wetlands are often referred to as marshes, swamps, or bogs. The U.S. Army Corps of Engineers defines wetlands as "those areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Residents of Michigan are becoming more aware of the value of wetlands. Beyond their aesthetic value, wetlands improve water quality of lakes and streams by filtering polluting nutrients, organic chemicals, and toxic heavy metals. Wetlands are closely related to high groundwater tables and serve to discharge or recharge aquifers. Additionally, wetlands support wildlife, and wetland vegetation protects shorelines from erosion.

Wetlands information for Summerfield Township is catalogued by the National Wetlands Inventory (NWI), a program of the U.S. Fish and Wildlife Service. Included in the inventory are emergent wetlands, forested wetlands, scrubshrub wetlands, and open water/unknown bottom wetlands. As shown on Map 3, only a few significant areas of wetlands are currently found within the Township. Most of the wetlands in the Township comprise a small area and are intermittently scattered throughout the Township. In total, wetlands cover approximately 525 acres or about two percent of the Township.

TOPOGRAPHY

Topography, the configuration of a land area's varying elevations, has very important planning implications. Land use and required maintenance depend to a large degree on slope, although today there are fewer restrictions on development in steep slope areas due to better construction and engineering techniques. Still, while steep slopes can provide attractive views and recreational opportunities, building development can be adversely impacted.

Generally, the topography of Summerfield Township is flat. Within the Township, only minor topographical features, such as river beds are found. The Environmental Resources Map (Map 3) shows the topography of Summerfield Township through the mapping of five meter contour lines. A community with steep slopes and significant topographical features will be represented by a large number of tightly spaced contour lines. As can be seen by the map, the only tight concentration of multiple five meter contour lines can be found surrounding the River Raisin. In terms of elevation, the highest contour lines of 210 meters (689 feet) are found in the southeastern portion of the Township while the lowest contour lines of 200 meters (656 feet) are found along the River Raisin in the north-central portion of the Township.

Aside from a few areas of river beds, the generally flat topography that characterizes the majority of the Township poses few constraints to land development.

Soil Associations

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

According to STATSGO soils data for Michigan provided by the Michigan Geographic Data Library (MiGDL), there are four soil associations found in Summerfield Township. The general locations of these associations are shown on Map 3. The map is not designed for site specific applications; rather, it can be used to compare general land suitability for larger areas.

Each soil association is composed of several soil series. Each series making up one association may occur in another, but in a different pattern and/or combination. Using data provided by the USDA Natural Resource Conservation Service, a description of the four soil associations, and individual soil series within each association follows.

Hoytville-Nappanee-Blount Soil Association

Located in the southwestern corner of the Township, this soil association comprises the smallest percentage of the Township at only approximately three percent. As the name implies, three soil series are included in this association: Hoytville soils, Nappanee soils and Blount soils. The following table illustrates the characteristics of each series:

	Soil Series					
Characteristics	Hoytville	Nappanee	Blount			
Drainage	Very poorly drained	Somewhat poorly drained	Somewhat poorly drained			
Permeability	Moderately slow to slow	Very slow	Slow to very slow			
Surface Runoff	Negligible or very low	Negligible to very high	Medium to very high			
Depth to Seasonal High Water Table	1 ft above to 1 ft below surface	0.5 to 2 ft below surface	0.5 to 1 ft below surface			
Seasonal High Water Table Time Period	January to April	November to May	December to April			
Non-urban uses	Primarily cultivation	Large part in cultivation, some in	Primarily cultivation			
Principal Crops	Corn, soybeans	Corn, oats, wheat, soybeans, clover, and alfalfa	Corn, soybeans, and small grains			
Growing Season / Frost Free Period	140-165 days	Unspecified	130-180 days			
Native Vegetation	Deciduous swamp forest, swamp white oak, bur oak, pin oak, elm, hickory, ash, cottonwood,	American beech, red maple, oak, American basswood, and American elm	Hardwood forest			

Kibbie-Lamson-Conover Soil Association

This soil association comprises approximately nine percent of the lands in the Township and is found in the western and northwestern edge of the Township. The following table illustrates the characteristics of each series within this association:

	Soil Series					
Characteristics	Kibbie	Lamson	Conover			
Drainage	Somewhat poorly drained	Poorly to very poorly drained	Somewhat poorly drained			
Permeability	Moderate	Moderate or moderately rapid	Moderate or moderately slow			
Surface Runoff	Negligible to medium	Very low or negligible	Low to high			
Depth to Seasonal High Water Table	1 to 2 feet below surface	None or unspecified	None or unspecified			
Seasonal High Water Table Time Period	November to May	None or unspecified	None or unspecified			
Non-urban uses	Mostly cultivated	Drained areas in cultivation,	Mostly cultivated			
Principal Crops	Corn, small grains, beans, and hay	Corn, vegetables and hay	Corn, beans, small grain and legume-grass hay			
Growing Season / Frost Free Period	Unspecified	120-180 days	130-180 days			
Native Vegetation	Forests of American elm, American beech, red maple, and American	White and black ash, red maple, swamp elm, hemlock, and white cedar	Hardwood forest			

Oakville-Tedrow-Granby Soil Association

This soil association comprises the largest percentage of the Township at approximately 55 percent. Soils of this association dominate almost the entire eastern half of the Township, as well as portions of the western half. The following table illustrates the characteristics of each series within this association:

	Soil Series						
Characteristics	Oakville	Tedrow	Granby				
Drainage	Excessively drained	Somewhat poorly drained	Poorly or very poorly drained				
Permeability	Rapid	Rapid	Rapid				
Surface Runoff	Negligible to low	Negligible or very low	Negligible				
Depth to Seasonal High Water Table	None or unspecified	1 to 2 ft below surface	1 ft above to 1 ft below surface				
Seasonal High Water Table Time Period	None or unspecified	January to April	Unspecified				
Non-urban uses	Mostly in idle cropland or in	Mostly cultivation	Mostly cultivation				
Principal Crops	Vegetables, small grains, and legume- grass hay. Requires water irrigation to	Corn, soybeans, and wheat	Small grains, hay, corn, soybeans, small fruits, and vegetables				
Growing Season / Frost Free Period	130-180 days	140-165 days	130-180 days				
Native Vegetation	Mixed hardwoods with oak and white pine	Mixed hardwoods with oak, elm, and maple	Marsh grasses, reeds, sedges, aspen, oak, silver maple, elm, and eastern white pine				

Pewamo-Selfridge-Tedrow Soil Association

This soil association comprises the second largest percentage of the Township at approximately 33 percent. Soils of this association are located in two separate areas in the north-central and south-central portion of the Township. The following table illustrates the characteristics of each series within this association:

	Soil Series					
Characteristics	Pewamo	Selfridge	Tedrow			
Drainage	Very poorly drained	Somewhat poorly drained	Somewhat poorly drained			
Permeability	Moderately slow	Rapid in the sandy material and moderately slow or slow in the underlying loamy till	Rapid			
Surface Runoff	Negligible to low	egligible to low Very low or negligible I				
Depth to Seasonal High Water Table	1 ft above to 1 ft below surface	1 to 2 feet below surface	1 to 2 ft below surface			
Seasonal High Water Table Time Period	December to May	Unspecified	January to April			
Non-urban uses	Mostly cultivation	Mostly cultivation and pasture	Mostly cultivation			
Principal Crops	rincipal Crops Corn, soybeans, small grains, and hay		Corn, soybeans, and wheat			
Growing Season / Frost Free Period	130-180 days	130-180 days	140-165 days			
Native Vegetation	Red maple, American elm, white ash, and American basswood	Mixed hardwoods, beech, American elm, northern red oak, and maple	Mixed hardwoods with oak, elm, and maple			

Transportation Analysis

One of the most critical components in the overall development and viability of a community is mobility. Mobility gives residents the ability to enjoy and function within the community. It also plays a significant role in the success of businesses and industries, allows for outside investment, and attracts visitors to the community. Mobility is linked to many other key planning elements, such as sustainability, demography and economy. A solid, efficient transportation network accommodating a variety of styles forms the structure around which settlements are arranged. Transportation is intrinsically linked to land use and regional issues as well. For instance, will the development of industrial land uses in a previously agricultural area have significant impacts on the surface streets surrounding the area? Can a community accommodate a diverse collection of residents from across age, economic or ethnic groups if the only forms of transportation available are private automobiles?

Transportation networks play as crucial a role in urban and rural development as land use, natural features, public utilities or any other factor. It is important, for instance, to ensure that a community accommodates pedestrian and other non-motorized travel, such as bicycles, in addition to automobiles, to ensure that seniors and young people can access public amenities and requisite goods and services. If warranted by the size and regional position of the community, bus networks or other forms of public transit also become necessary to meet these goals. It is for reasons such as these that we include an analysis of the transportation network in the Master Plan. In addition, it helps to ensure that future improvements and land use decisions complement the needs and goals within the community for continued and improved mobility.

Transportation Network

National Functional Classification (NFC)

The Transportation Network Map shows the National Functional Classification of Summerfield Township's roads. The National Functional Classification (NFC) is a federal classification system for all public highways, roads, and streets. This classification system provides the basis for federal aid eligibility of roadways (United States Code, Title 23). In Michigan, MDOT has the primary role in cooperation with appropriate local agencies in updating and revising the NFC. Updates and revisions are subject to Federal Highway Administration approval.

Roads are classified first as rural or urban, such as a rural arterial roadway. Urban roads are roads within the urban area boundaries as identified by State and local officials. Rural roads are roads outside the urban area boundaries, which includes Summerfield Township. The two primary considerations in classifying highway and street networks functionally are access to property and travel mobility as defined by trip travel time or operating speed. For



example, local roads provide access to property, but would be rated low in mobility.

The basic classifications for the functional systems are:

- Arterial highways, which generally handle longer trips and operate at higher and more uniform speeds.
- Collector roads, which collect and disperse traffic between arterials and the local roads.
- Local roads, streets, and other public ways, which serve the land access function to the residential areas, businesses, individual farms and other local areas.

The U.S. 23 freeway is the only Rural Principal Arterial in Summerfield Township. Rural Principal Arterials are characterized as routes with trip length and density suitable for substantial statewide or interstate travel, including movements between major urban areas.

The Deerfield Road/Ida West Road corridor running east-west through Summerfield is the only Rural Minor Arterial within the Township. Rural Minor Arterials are characterized as roads that provide linkages to larger towns and cities that are capable of attracting travel over longer distances. Minor arterials, therefore, constitute routes which should be expected to provide for relatively high travel speeds and minimum interference to through movement.

Two corridors within Summerfield Township are classified as Rural Major Collectors: Sylvania-Petersburg Road running north-south through the center of the Township; and Ida Center Road running east-west in the eastern half of the Township. Rural Major Collectors are defined as those routes that provide access to larger towns not directly served by the higher Arterial systems as well as other traffic generators of equivalent intracounty importance, such as consolidated schools, shipping points, county parks, and important mining and agricultural areas.

Several Rural Minor Collectors are found in Summerfield Township including: Teal Road, Summerfield Road, Ida Center Road, and County Line Road. Rural Minor Collectors are generally defined as routes which are spaced at intervals consistent with population density to accumulate traffic from local roads and to provide connections to locally important traffic generators and more developed areas.

The rest of the roads in Summerfield Township are classified as Rural Local Roads. The rural local road system, in comparison to collectors and arterial systems, primarily provides access to land adjacent to the collector network and serves travel over relatively short distances.

Road Ownership and Classification

Map 4 also shows the ownership and classification of the roads within Summerfield Township. The roads are broken into the following three categories: State Trunkline; County Primary; and County Local.

U.S. 23 is the only road in Summerfield Township under State ownership. Improvement projects and maintenance on U.S. 23 is administered by the Michigan Department of Transportation (MDOT). The rest of the roads in Summerfield Township are under County control, administered by the Monroe County Road Commission. County Primary roads include: Deerfield Road, Ida West Road, Sylvania-Petersburg Road, Teal Road, Summerfield Road, Ida Center Road, Goetz Road, Rauch Road, and County Line Road. The rest of the County roads are classified as County Local roads.

Road Signalization

Vehicular traffic within the Summerfield Township is predominantly managed with simple stop and control signage, in addition to two signalized intersections (both blinking lights). The locations of these signalized intersections are as follows (see also Map 4):

- Teal Road at Ida Center Road
- Summerfield Road at Rauch Road

Railroads

Currently, one railroad line, owned by the Detroit Toledo and Ironton Railroad, runs diagonal from the southwestern corner to the northeastern corner of the Township.

Mass Transit

Limited public transportation service is available to certain Summerfield Township residents through the Lake Erie Transit, located in the City of Monroe. According to the transit authority's website, Lake Erie Transit provides fixed public transportation routes within the City of Monroe, as well as Dial-a-Ride service to two Townships within Monroe County: Frenchtown and Bedford Townships. For Summerfield Township residents, Lake Erie Transit offers what they call Essential Transportation Service (ETS). The ETS is a door-to-door service for senior citizens and the handicapped in Monroe County. Such citizens need to meet one of the following characteristics:

- those 60 years or older;
- those who are wheelchair restricted:
- those who are unable to go up or down a flight of stairs without assistance:

- those who have great difficulty walking without a cane or walker;
- and those with an emotional impairment recognized by a state or federal agency.

Air Travel

Two commercial passenger airports are located within a one hour drive of Summerfield Township. The Toledo Express Airport is an approximately 30 minute drive from Summerfield and is located off of I-80, west of Toledo. The Toledo Express Airport offers service from several airlines including American Eagle, Continental Connection, Delta Connection, Northwest Airlink, and ATA Connection. Destinations include Chicago, Cleveland, Atlanta, Cincinnati, and Detroit.

The nearest major international airport is the Detroit Metropolitan Wayne County Airport. Detroit "Metro" Airport is located in the southwestern suburbs and is an approximately 45 minute drive from Summerfield Township. Metro Airport offers a large number of domestic and international flights from a wide variety of airlines. According to the airport's website, Detroit Metro serviced 32.6 million passengers during the year 2003, 2.6 million of which were international passengers. This places Detroit Metro as the 10th largest airport in North America and 17th largest airport in the World.

Finally, the Monroe Custer Airport is a general aviation airport servicing the local area. This airport is located outside of the City of Monroe and is owned and operated by the City.

Traffic Volumes

The Transportation Analysis Map (Map 5) displays Annual Average Daily Traffic (AADT) counts for selected road segments within Summerfield Township. These traffic counts were obtained from two sources. For U.S. 23, traffic counts were obtained from the MDOT 2016 State Traffic Volumes Map. The rest of the traffic count data was obtained from the Southeast Michigan Council of Governments (SEMCOG) Traffic Count Data. The traffic counts from SEMCOG were taken over various years, with the most recent counts taken in 2016.

A graduated color scheme (oranges to greens) has been used on the map in order to depict the highest and lowest traveled roads in the Township. As shown on the map, the most highly traveled corridor in Summerfield is U.S. 23, with an AADT count ranging from approximately 33,000 to 37,000 within the Township.

After a sharp drop off, the next highest AADT count is 3,690, found along Summerfield Road between Tunnicliff Road and U.S. 23. Continuing south towards Rauch Road, Summerfield Road maintains a high AADT level of 3,310. Other moderate traffic volumes in the Township are found along the following roads:

- Ida West Road (3,260 AADT) west of U.S. 23
- Deerfield Road (1,910 AADT) between Petersburg and Dennison Road
- Wells Road (1,790 AADT) between Ida West Road and Albain Road

The rest of the roads in Summerfield Township feature low volumes of traffic.

ROAD CONDITIONS

The condition of every road in the Township was assessed through field surveys by representatives of the Summerfield Township Planning Commission. Road condition (namely pavement condition) was assessed on a scale of one to three, one being Very Good and three being Poor. The extent of surface deterioration is based on the observed amount of pavement cracking, faulting, joint deterioration, wheel tracking, patching, and roughness, etc. The three road condition categories can be defined as follows:

- Very Good: No visible pavement deterioration.
- <u>Good to Fair</u>: Very little/occasional pavement deterioration, requiring routine maintenance operations.
- <u>Poor</u>: Extensive occurrence of surface deterioration, requiring possible road surface reconstruction.

Additionally, unpaved roads were identified during the road condition survey. The current condition of the roads within the Township is shown on the Transportation Analysis Map. Table 2 provides a breakdown of pavement conditions within the Township.

As shown in the table, 27.7 percent of the roads surveyed have a "Very Good" pavement surface. These roads include

- Ida West Road
- Ida Center Road
- Teal Road
- Petersburg Road
- Syl Petersburg Road
- Goetz Road west of Bacon
- County Line Road south of Todd

Table 2: Pavement Conditions

Year	Total Length (Feet)	Total Length (Miles)	Percent of Total	
Very Good	157,346	29.8	27.7%	
Good to Fair	133,179	24.7	23.5%	
Poor	10,655	2.02	1.9%	
Unpaved	266,646	50.5	47.0%	
Total	567,826	107.02	100.00%	

Source: Summerfield Township, 2017

- Summerfield Road south of U.S. 23
- Summerfield Road north of Ida West
- Deerfield Road between Bragg and the City of Petersburg
- Dixon Road between Ida West and the City of Petersburg

Roads classified with a surface condition of "Good to Fair" comprise 23.5 percent of all the roads surveyed. Because they contain some minor pavement deterioration, these roads may require routine maintenance. Roads in this category are found scattered throughout the Township and include portions of Summerfield Road, Wells Road, and Albain Road.

Roads displaying a surface condition of "Poor" comprise 1.9 percent of those surveyed. This classification indicates that more extensive maintenance operations will be required because of frequent pavement deterioration. Bacon Road, between Rauch Road and Todd Road, was the only street segment designated as having a poor surface condition.

The largest percentage of roads in the Township are "Unpaved" at 47 percent of the total rights-of-way. These roads are located in the more rural areas of Summerfield and carry lighter amounts of vehicular traffic.

TRAFFIC SAFETY

Accident history of roadways can reveal important information regarding the capabilities of the transportation network. For example, the number of accidents occurring on a through street can reflect possible problems with roadway design. These problems could include such things as insufficient capacity for existing traffic volumes, deficient signalization, deterioration of pavement conditions, or too many access points along the roadway.

Within Summerfield Township during the year 2015, there were 132 total traffic accidents recorded. The traffic accident data was obtained from the SEMCOG Open Data Portal. Through the mapping of these accident locations (see Transportation Analysis Map), it is possible to determine problem areas within the transportation network.

As is no surprise, the largest number of traffic accidents occurred along U.S. 23, which carries the highest traffic volumes in the Township. In general, the traffic accidents along U.S. 23 were concentrated near the two interchanges within Summerfield Township. Aside from the freeway, there were only a few concentrations of traffic accidents within the Township. Generally, accidents occurred only sporadically along the Township roads. The locations with the highest concentration of traffic accidents are as follows:

- U.S. 23 near Summerfield Road Interchange, 13 accidents
- Ida West Road at Summerfield Road, 8 accidents
- U.S. 23 near Ida West Road Interchange, 7 accidents
- U.S. 23 near Ida Center Road, 7 accidents

COMMUNITY FACILITIES

This chapter details the numerous community facilities available to the residents of Summerfield Township. In addition to the descriptions below, the location of these facilities are also shown on the Community Facilities Map (Map 6). Many of the amenities available to Township residents, however, are located within the confines of the City of Petersburg in the north central section of the Township.

GOVERNMENT FACILITIES

The Summerfield Township Hall is located at 26 Saline Street in the City of Petersburg. This building houses most Township department offices and other service facilities.

Summerfield-Petersburg Branch Library is located at 60 East Center Street in the City of Petersburg. The Library is open Monday through Saturday, closed on Sundays. The Library also has a community room available for use upon reservation.

A branch office of the US Postal Service is located in the City of Petersburg at 55 Pahl Mall Road.

Fire and Police Services

Police services are provided in Summerfield through the Monroe County Sheriff's Department. Summerfield Township is located in District 3 which is headquartered at the Dundee Township Hall. District 3 also services Dundee, London, and Exeter Townships.

Fire protection services are provided through the Summerfield Township Volunteer Fire Department. The Township Fire Station is located south of the City of Petersburg at 4521 Sylvania-Petersburg Road.

EDUCATIONAL FACILITIES

Residents of Summerfield are part of the Summerfield Public School District. The district is served by two schools educating students from primary grades through high school. According to the National Center for Education Statistics (NCES) for the 2014-2015 school year, the District has a total of 702 students. The two schools in the district are as follows:

- Summerfield Elementary School (365 students preK-6), located in the City of Petersburg
- Summerfield Junior/Senior High School (351 students 7-12), located in the City of Petersburg

Religious Facilities

Currently, three churches are located within the Summerfield Township limits. These churches include:

- Petersburg Missionary Baptist Church
- New Life Church of Open Bible
- Grace Bible Fellowship

Three additional churches, located in the City of Petersburg, also service Township residents.

- Petersburg United Methodist
- St. Peter's Lutheran
- Lower Light Church

OTHER COMMUNITY FACILITIES

Other community facilities within Summerfield include three airstrips. Gradolph Field is a privately-owned airport located northwest of the City of Petersburg, available for public use. It is located on the west side of Dennison Road, north of McCarty Road. The airport has one unpaved east-west runway.

LADA Airport is also an unpaved privately-owned airport in Summerfield Township.It is located southeast of the City of Petersburg on Summerfield Road south of Albain Road. LADA has both an east-west and north-south runway; both are unpaved. Air Rahe Airport is a privately owned airport located 6 miles southeast of the City of Petersburg. The aiport has two unpaved east-west runways.

The Township owns and maintains a public cemetery. Summerfield Cemetery is located at the intersection of Ida West and Dixon Roads. Three other private/religious cemeteries are also located within the Township.

A Veterans of Foreign Wars (VFW) Post is also located in Summerfield Township, just southeast of the City of Petersburg at 3977 Sylvania-Petersburg Road.

TOWNSHIP RECREATIONAL FACILITIES

Several recreational facilities are located within Summerfield Township. One recreational amenity is the Deme Acres Golf Course, located southeast of Petersburg on Albain Road. Three privately owned campgrounds are also found within the Township. These include the KOA Campground located near Summerfield Road and U.S. 23; Pirolli Park Campground located on Sylvania-Petersburg Road; and Totem Pole Park and Campground located

on Lulu Road. The City of Petersburg has three public parks available for use. These include Pery, City, and Fernstrom Parks. Additionally, a wide variety of recreational facilities are available to Summerfield Township residents at both public school sites.

REGIONAL RECREATION¹

There are a multitude of regional park facilities available to residents within a short drive of Summerfield Township. Monroe County operates five County Parks open to Summerfield residents. The list below details some of the facilities available at each park.

- Heck Park (North Dixie Highway, Frenchtown Township)
 - √ Veteran's Memorial
 - √ Parking
 - √ Restrooms
 - √ Pavilion seating approximately 30 adults
 - √ Trails
 - √ Playground
 - √ Sled Hill
 - √ Charcoal operated Cooking Grills
- Nike Park (Newport Road, Frenchtown Township)
 - √ Soccer Fields
 - √ 2 Picnic Shelters, 13 total Picnic Tables
 - √ Grille
 - √ Playground Area
 - √ Model Aircraft Flying Area
 - √ Horseshoe Pits
 - √ Parking
 - √ Dog Training Area
 - √ 2 Portable restrooms
- Vienna Park (Vienna West Road, Bedford Township)
 - √ 5 Ball Diamonds
 - √ 5 Picnic Shelters, 38 total Picnic Tables
 - √ Grills
 - √ 18 Hole Disc Golf Course
 - √ Playground
 - √ Horseshoes
 - √ Nature Area
 - √ Parking
 - √ 4 Portable restrooms
- Waterloo Park (Mulhollen Drive, Monroe Township)



¹All Monroe County Parks and Recreation material derived from: "Individual Park Pages." Monroe County website.

- √ Paved Trails
- √ 2 Picnic Pavilions, 21 Total Picnic Tables
- √ Grills
- √ Accessible Fishing Pier
- √ Canoe Landing
- √ Exercise Equipment
- √ Playground
- √ Horseshoes
- √ Parking
- √ Walking Path
- √ 2 Portable restrooms
- West County Park (Rightmire Road, Dundee Township)
 - √ Natural Area
 - √ River Access
 - √ Hiking

Sterling State Park is also located in Monroe County at 2800 State Park Road off of Dixie Highway in the City of Monroe. In addition, there is a Michigan Department of Natural Resources property located in Summerfield that totals approximately 534 acres and is maintained as a state game preserve.

UTILITIES²

Community utilities are those facilities and services owned and operated by Summerfield Township or other governmental or private authority for the benefit of Township residents. These services include water, waste water disposal, electricity, and gas.

Water Supply

Summerfield Township does not operate a public water system. Households and businesses rely primarily on individual wells. A small number of uses located adjacent to the City of Petersburg corporate limits are connected to the City's water system.

Wastewater Disposal

Summerfield Township depends entirely on on-site waste water treatment facilities. The City of Petersburg is served by sanitary sewers. The City's sanitary sewer system has limited available capacity. Extension of City sewers into the Township properties is unlikely absent an annexation agreement and/or additional treatment capacity.

In general, Township soils have varying capacity to support conventional septic systems. Soil testing is necessary prior to siting a drainfield. On-

²All utility section information taken directly from 2011 Township Master Plan Update.

site treatment facilities are only functional where groundwater levels and soil conditions are suitable. The water table must be sufficiently below the septic drain field in order to prevent groundwater contamination. Soils must be permeable enough to allow slow percolation of waste water. But, not so dense that waste water can rise to the surface or so permeable that waste water seeps into the groundwater without adequate filtering by the soil. The Monroe County Health Department regulates the construction of on-site septic systems. All systems must meet their requirements prior to installation.

Storm Water Drainage

Maintenance of County drains is the responsibility of the Monroe County Drain Commissioner. The cost of drain maintenance is assessed to benefiting property owners.

Electric and Natural Gas Service

DTE supplies most of Summerfield Township with electricity. Consumer Power provides electrical service south of Rauch and Summerfield Roads. As shown on the Community Facilities Map, three electrical substations are found within Summerfield Township.

Though several natural gas pipelines pass through Summerfield Township, many Township residences and businesses are unable to receive natural gas service. Natural gas service is limited to Albain Road near Petersburg, Ida West from Summerfield Road to U.S. 23, and Ida Center to U.S. 23.

SOCIOECONOMY

The purpose of this analysis is to describe the social characteristics of Summerfield Township, which are an essential element in the short- and long-term planning goals of the community. Social characteristics include the size of the population, age, gender, race, ethnicity, employment, and housing value, tenure and unit age. Compiling and examining the information collected for these elements will help guide Township Officials in determining future land use needs.

POPULATION PROFILE

Historical Population Growth

Population trends for Summerfield Township and its neighboring communities are presented in Table 3. According to the American Community Survey (ACS) 2011-2015 Estimates, the population of Summerfield Township is currently 3,262. This represents an increase of 2.7 percent (86 residents) since 1980. Of the adjacent communities that experienced growth over the 35 year period, Summerfield Township saw the smallest increase. While Summerfield's overall percentage during the 35 year period indicated growth, the Township's population saw a decrease of 0.3 percent between 2010 and 2015.

The seven neighboring communities displayed in the table experienced a range of population changes over the last 35 years. The population of Dundee Township more than doubled, with an increase of 139.1 percent. The Village of Dundee also experienced a significant increase, at 53.4 percent. Whiteford Township and Deerfield Township both experienced population loss over this time period. The remaining communities experienced gradual growth, similar to Summerfield Township, However, it should be noted that, as all communities have comparatively small populations, a modest population shift produces a high percentage of change.

Table 3: Population Trends: 1980-2015

Place	1980	1990	% Change (80-90)	2000	% Change (90-00)	2010	% Change (00-10)	2015	% Change (10-15)	% Change (80-15)
Summerfield Township	3,176	3,076	-3.1%	3,233	5.1%	3,308	2.3%	3,262	-1.4%	2.7%
Monroe County										
Dundee Township	2,820	2,712	-3.8%	2,819	3.9%	6,759	139.8%	6,742	-0.3%	139.1%
Village of Dundee	2,575	2,664	3.5%	3,522	32.2%	3,957	12.4%	3,950	-0.2%	53.4%
lda Township	4,467	4,554	1.9%	4,949	8.7%	4,964	0.3%	4,894	-1.4%	9.6%
Whiteford Township	4,660	4,433	-4.9%	4,420	-0.3%	4,602	4.1%	4,536	-1.4%	-2.7%
City of Petersburg	1,222	1,201	-1.7%	1,157	-3.7%	1,146	-1.0%	1,315	14.7%	7.6%
Lenawee County										
Blissfield Township	3,744	3,849	2.8%	3,915	1.7%	3,973	1.5%	3,895	-2.0%	4.0%
Deerfield Township	1,729	1,659	-4.0%	1,770	6.7%	1,568	-11.4%	1,514	-3.4%	-12.4%
Monroe County	134,659	133,600	-0.8%	145,945	9.2%	152,021	4.2%	150,436	-1.0%	11.7%
Michigan	9,262,078	9,295,297	0.4%	9,938,444	6.9%	9,883,640	-0.6%	9,900,571	0.2%	6.9%

Source: 1980, 1990, 2000, 2010 US Census - SF1; 2011-2015 American Community Survey 5-Year Estimates

Monroe County and the State of Michigan both saw population increases between 1980 and 2015. The 11.7 percent increase for Monroe County, however, is greater than the 6.9 percent increase for the State.

Population Projections

Data in Table 4 provide the results of three approaches to projecting Summerfield Township's population levels between 2020 and 2040. Population projections may be calculated in numerous ways, but all involve the extrapolation of past population growth trends into the future.

The Southeast Michigan Council of Governments (SEMCOG) projections for

Table 4: Population Projections 2020-2040

Tubic 111 opunation 110 octions 2020 2010										
	2020	2025	2030	2035	2040					
Monroe County										
Numeric Projection Method ^a	154,086	155,866	157,646	159,427	161,207					
SEMCOG 2040 Projection	156,592	158,332	160,841	163,180	164,720					
Average	155,339	157,099	159,244	161,304	162,964					
Summerfield Township										
Numeric Projection Method ^a	3,311	3,325	3,340	3,355	3,370					
Component Projection Method ^b	3,340	3,346	3,376	3,387	3,390					
SEMCOG 2040 Projection	3,274	3,228	3,247	3,160	3,115					
Average	3,308	3,300	3,321	3,301	3,292					

^a Represents the extension of past population trends between 2000 and 2015 on a linear trend basis.

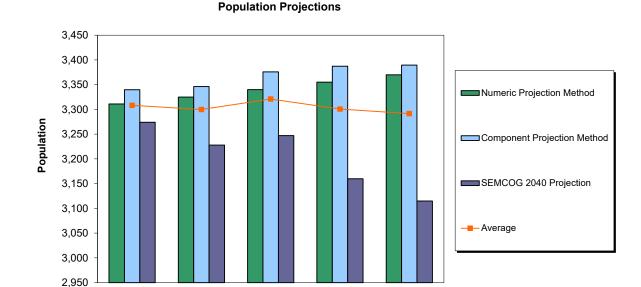
Summerfield Township

Source: SEMCOG Community Profiles, 2040 Population Forecast; Wade Trim analysis.

2020

2025

2030



2035

2040

^b Represents the Township's estimated share of the County's average population projection. Township's estimated share is based on the actual Township share of the County population from 2000 to 2015, extended through 2040 (2.15% in 2020; 2.13% in 2025; 2.12% in 2030; 2.10% in 2035; and 2.08% in 2040).

both Monroe County and Summerfield Township are derived from a complex, three-step process utilizing regional economic models and parcel-based land use analysis. According to the SEMCOG projections, Summerfield Township is expected to lose population over the next 25 years, while Monroe County is expected to grow. The 2040 Summerfield Township population is predicted to be 3,115 residents, which is a decerease of 4.5 percent from its 2015 population.

For both Monroe County and Summerfield Township, Table 4 also provides a numeric population projection, which is essentially the extension of past population trends (between 2000 and 2015) extrapolated through 2040 on a linear trend basis. Because Monroe County and Summerfield Township both grew between 2000 and 2015, the linear trend shows continued growth through 2040, with Summerfield Township reaching a population of 3,370 residents. This is an increase of 3.3 percent from its 2015 population.

Finally, for Summerfield Township, Table 4 provides a component population projection, which represents the Township's estimated share of the two average population projections for Monroe County. The Township's estimated share of the County population is based on historical trends between 2000 and 2015. Because Summerfield Township's actual share of the County population declined between 2000 and 2015, the component projection assumes that the Township's share will continue to decline through 2040. Based on the component method, the Township is expected to increase in population to 3,390 residents by 2040, which represents an increase of 3.9 percent from its 2015 population.

The average of the three population projections for Summerfield Township suggests that the Township population will grow modestly through 2040 to approximately 3,292 residents (an increase of approximately 0.9 percent from 2015). It is important to note that these population projections cannot take into consideration new or changing economies within Summerfield Township. As an example, if a large employer was to center an operation within the Township, the population of the community would likely increase beyond what is currently projected.

Age Groups

The median age in 2015 for Summerfield Township was 41.0 years, making its population approximately average to the surrounding communities. In addition, the Township is very similar in its median age to both Monroe County and the State of Michigan. Approximately 1,467 Township residents (45.0 percent) were over 45 years of age. At the other extreme, 1,021 residents (31.3 percent) were under the age of 25.

Summerfield Township's school-age population (5 to 19 years) totaled 707, or 21.7 percent of the Township's population. This is higher than the schoolage population proportion of the neighboring communities (average of 18.8 percent). The Township's percentage of residents ages 65 and above (15.0 percent) is also slightly higher, than the proportion of the same age group in neighboring communities (14.5 percent).

Table 5: Age Group Comparison: 2015

	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 34	35 to 44
Place	years	years	years	years	years	years	years
Summerfield Township	145	164	310	233	169	355	419
Monroe County							
Dundee Township	397	250	449	487	276	998	872
Village of Dundee	321	120	281	286	139	670	575
Ida Township	147	267	328	355	261	517	565
Whiteford Township	252	220	301	265	187	407	600
City of Petersburg	73	82	88	103	111	179	140
Lenawee County							
Blissfield Township	253	286	252	209	241	426	590
Deerfield Township	89	106	77	121	89	147	189
Monroe County	8,316	9,302	10,251	10,026	9,204	16,469	18,538
Michigan	575,786	614,020	649,853	692,063	716,184	1,190,702	1,206,918

	45 to 54	55 to 59	60 to 64	65 to 74	75 to 84	85 years	Median age
Place	years	years	years	years	years	and over	(years)
Summerfield Township	485	280	212	276	151	63	41.0
Monroe County							
Dundee Township	892	547	528	626	332	88	41.3
Village of Dundee	451	269	294	223	233	88	37.5
lda Township	997	397	349	327	338	46	45.1
Whiteford Township	799	459	305	364	302	75	45.6
City of Petersburg	235	64	81	91	46	22	37.0
Lenawee County							
Blissfield Township	573	266	224	300	242	33	39.4
Deerfield Township	251	138	83	148	53	23	42.5
Monroe County	23,523	11,856	10,314	12,882	7,163	2,592	41.7
Michigan	1,426,007	718,937	627,236	831,394	449,692	201,779	39.5

2011-2015 American Community Survey 5-Year Estimates

Changes in Age Structure

The past fifteen years, 2000-2015, shows significant changes in the age

structure of Summerfield Township. The proportion of persons under the age of 20 has decreased from 29.7 percent to 26.1 percent. The proportion of the population over age 65, however, has increased from 9.8 percent to 15.0 percent. These changes in population for Summerfield Township indicate an aging population unbalanced by a decreasing number of families with younger children. This premise is also reinforced by the increase in overall

median age for the Township.

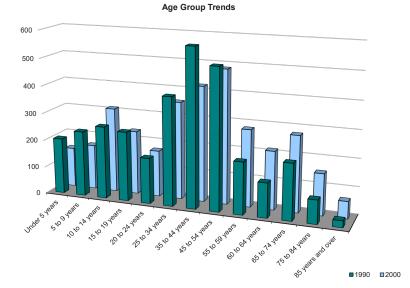
According to SEMCOG, the Township's population will continue to age through 2040, as evidenced by a larger percentage of elderly citizens and a smaller percentage of children and teens. SEMCOG predicts 25.8 percent of the population will be over 65 years of age in 2040, and 19.9 percent of the population will be less than 18 years of age in 2040.

Table 6: Age Group Trends: 2000-2015

Tubic o. Age Group Trends	. <u>2000</u>	2010
Age	2000	2015
Under 5 years	204	145
5 to 9 years	238	164
10 to 14 years	264	310
15 to 19 years	253	233
20 to 24 years	166	169
25 to 34 years	394	355
35 to 44 years	572	419
45 to 54 years	510	485
55 to 59 years	190	280
60 to 64 years	126	212
65 to 74 years	204	276
75 to 84 years	87	151
85 years and over	25	63
Median age (years)	37.0	41.0

2000 US Census - SF1, 2011-2015 American Community Survey 5-Year Estimates **Household Size**

Household size, as measured by the average number of persons per household, has been decreasing on a national level since the 1970s. This is true for both Monroe County as a whole and Summerfield Township. Table 7 provides the household size trends and projections for Summerfield Township and surrounding areas between 2000 and 2040. Between 2015 and 2040, the number of persons per household in Summerfield Township is expected to decline by 12.2 percent from 2.78 to 2.44. This rate of decline is the highest among the surrounding communities and is higher than the County's rate of decline of 5.9 percent.



Declining numbers of persons per household often is accompanied by an increase in the

total number of households and demand for new housing. This is often true even in circumstances of negative population growth. For example, a population of 1,000 with an average of four persons per household requires 250 dwelling units. The same population (1,000) with an average household size of two, requires 500 dwelling units.

Even with a projected declining population, SEMCOG projects that a total of 1,269 occupied housing units will be necessary within Summerfield Township by 2040, which is an increase of 10.8 percent from the number of occupied housing units in 2015 (1,145).

Table 7: Average Household Size 2000-2040

Place	2000	2015	2040
Summerfield Township	2.91	2.78	2.44
Monroe County			
Dundee Township	2.87	2.32	2.53
Village of Dundee	2.53	2.29	2.31
lda Township	3.03	2.61	2.52
Whiteford Township	2.77	2.6	2.44
City of Petersburg	2.74	2.58	2.5
Lenawee County			
Blissfield Township	2.46	2.33	n/a
Deerfield Township	2.84	2.55	n/a
Monroe County	2.69	2.55	2.4
Michigan	2.56	2.52	n/a

2000 US Census - SF1; 2011-2015 American Community Survey 5-Year Estimates; SEMCOG 2040 Projection.

Household Type

Table 8 outlines the total number of households in Summerfield Township, surrounding communities, Monroe County, and the State of Michigan, as well as a breakdown of family and non-family households.

When comparing Summerfield Township to its surrounding areas, there are some significant percentage differences among the household categories. The average household size for Summerfield Township is larger than all of the surrounding communities, as well as Monroe County and the State. Summerfield Township has a higher concentration of family households and married-couple households than average for the surrounding areas, or the State. The proportion of Summerfield Township householders living alone, and the porportion of householders over 65 years of age is significantly lower than the surrounding communities.

Table 8: Household Characteristics: 2015

Place	Total households	Family households (families)	Married- couple family	Female householder, no husband present	Nonfamily households	Householder living alone	Householder 65 years and over	Households with individuals under 18 years	Households with individuals 65 years and over	Average household size
Summerfield Township	1,145	941	810	53	204	182	76	417	305	2.78
Monroe County										
Dundee Township	2,896	1,859	1,555	280	1,037	895	323	793	780	2.32
Village of Dundee	1,725	980	764	197	745	621	251	519	433	2.29
lda Township	1,866	1,447	1,274	122	419	341	53	501	466	2.61
Whiteford Township	1,740	1,268	1,025	142	472	443	116	482	472	2.60
City of Petersburg	509	363	248	88	146	122	37	175	118	2.58
Lenawee County										
Blissfield Township	1,669	966	655	272	703	562	186	502	433	2.33
Deerfield Township	578	408	333	44	170	153	52	181	156	2.55
Monroe County Michigan	58,566 3,841,148	41,233 2,497,834	31,890 1,834,569	6,356 487,461	17,333 1,343,314	14,698 1,115,974	5,950 419,520	18,641 1,157,766	15,844 1,051,557	2.55 2.52

2011-2015 American Community Survey 5-Year Estimates

Racial Composition

As can be seen in Table 9, Monroe County's current white, non-Hispanic population, is 94.6 percent of the total, while minorities comprise 5.4 percent. Summerfield Township, however, has a significantly smaller percentage of minorities (1.9 percent). Given the Township's smaller population base and the historic migration patterns of minorities within Michigan, this is not unexpected.

Table 9: Racial Composition 2015

Race		ummerfield wnship	2015 Monroe County		
Nace		Percent of		Percent of	
	Number	Population	Number	Population	
One race	3,198	98.0%	144,034	95.7%	
White	3,085	94.6%	142,325	94.6%	
Black or African American	21	0.6%	3,494	2.3%	
American Indian and Alaska Native	2	0.1%	533	0.4%	
Asian	35	1.1%	928	0.6%	
Native Hawaiian and Other Pacific Islander	0	0.0%	7	0.0%	
Some other race	55	1.7%	914	0.6%	
Two or more races	64	2.0%	2,235	1.5%	

2011-2015 American Community Survey 5-Year Estimates

ECONOMIC PROFILE

The economic strength of Summerfield Township is related to the number and type of employment opportunities in the labor market area, as well as the level of educational attainment by its residents. Within a labor market area, some municipalities function as major employment centers while others primarily serve as residential communities. According to the U.S. Census, 1,605 Summerfield Township residents 16 years of age and older were employed in 2015, equivalent to a 92.8 percent employment rate. This section provides a general narrative of the current economic conditions of Summerfield Township, as well as educational attainment, employment and income levels within the Township.

Educational Attainment

Data in Table 10 show the educational attainment of the residents of Summerfield Township, surrounding communities, Monroe County, and the State of Michigan. The percentage of individuals 25 years and over, with an educational attainment of high school graduation (or equivalent) is 42.5 percent. This proportion is similar to the surrounding communities, and higher than Monroe County. Summerfield Township has a low percentage of individuals 25 years and over with an educational attainment of a Bachelor's

Table 10: Educational Attainment: 2000

Place	Population 25 Years and Over	High School Graduate (includes equivalency)	% of Population 25 Years and Over	Bachelor's Degree	% of Population 25 Years and Over
Summerfield Township	2,241	952	42.5%	275	12.3%
Monroe County					
Dundee Township	4,883	1,746	35.8%	715	14.6%
Village of Dundee	2,803	1,053	37.6%	369	13.2%
lda Township	3,536	1,140	32.2%	470	13.3%
Whiteford Township	3,311	1,496	45.2%	461	13.9%
City of Petersburg	858	410	47.8%	51	5.9%
Lenawee County					
Blissfield Township	2,654	879	33.1%	503	19.0%
Deerfield Township	1,032	422	40.9%	101	9.8%
Monroe County Michigan	103,337 6,652,665	37,390 1,988,382	36.2% 29.9%	12,585 1,094,936	12.2% 16.5%

2011-2015 American Community Survey 5-Year Estimates

degree (12.3 percent) when compared with surrounding communities. Both the City of Petersburg and Deerfield Township have lower proportions in this educational attainment category.

Employment by Occupation and Industry

Employment by Occupation and Employment by Industry are two related, yet individually significant indicators of community welfare. Employment by Occupation describes the trades and professions in which Township residents are employed, such as a manager or salesperson. Employment by Industry quantifies the field in which that manager or sales person may be employed. For instance, two sales persons may be present in the "Sales and Office Occupations" category of the Employment by Occupation table, but may be employed in two different fields. That is, a sales person in the manufacturing industry and a sales person in the real estate trade would be categorized within those different classifications in the Employment by Industry table.

Table 11: Employment by Occupation: 2000

Place	Employed civilian population 16 years and over	Management, business, science, and arts occupations	Service occupations	Sales and office occupations	Natural resources, construction, and maintenance occupations	Production, transportation, and material moving occupations	
Summerfield Township	1,605	436	188	322	247	412	
Monroe County Dundee Township Village of Dundee Ida Township Whiteford Township City of Petersburg Lenawee County Blissfield Township Deerfield Township	3,122 1,677 2,540 2,188 655 1,858 811	1,064 497 827 550 151 692 191	664 370 398 388 106 303 164	502 264 438 507 133 450	224 89 291 261 67 92 119	668 457 586 482 198 321 165	
Monroe County Michigan	68,024 4,373,518	19,912 1,525,263	12,474 796,215	14,361 1,037,272	7,282 339,141	13,995 675,627	

2011-2015 American Community Survey 5-Year Estimates

Employment by occupation for Summerfield Township and the surrounding areas is detailed in Table 11. The American Community Survey indicates that Summerfield Township's occupations are comparable to the surrounding communities. Some noteworthy differences when compared to adjacent communities are a lower percentage of service occupations, and a higher percentage of occupations in natural resources, construction, and maintenance occupations in Summerfield Township.

Employment by industry for Summerfield Township and surrounding areas is detailed in Table 12. In most cases, the Township is similar in the industry of employment of its residents to those of surrounding communities. When comparing the percentage of employment by industry for each community, the classifications of manufacturing, and educational, health care and social services employ the largest majority of the area population. These industries provide work for 48.2 percent of Summerfield Township residents.

Table 12: Employment by Industry: 2015

			N	Monroe Cour	nty		Lenawe	e County		
Industry	Summerfield Township	Dundee Township	Village of Dundee	lda Township	Whiteford Township	City of Petersburg	Blissfield Township	Deerfield Township	Monroe County	Michigan
Agriculture, forestry, fishing and hunting, and mining	65	89	37	71	21	4	21	50	918	55,638
Construction	151	102	14	202	170	50	47	67	3,748	212,000
Manufacturing	355	621	381	621	412	135	328	138	14,095	776,736
Wholesale trade	110	15	0	54	94	6	95	20	1,520	106,578
Retail trade	117	446	262	128	242	87	160	68	3,849	498,455
Transportation and warehousing, and utilities	119	152	92	169	197	74	64	41	5,147	181,527
Information	3	90	12	0	11	7	53	13	935	68,999
Finance, insurance, real estate, and rental and leasing	34	111	77	83	64	24	123	36	2,839	238,269
Professional, scientific, management, administrative, and waste management services	65	251	149	135	112	26	168	56	4,868	408,838
Educational services, and health care and social assistance	419	814	407	671	491	133	469	142	15,955	1,045,010
Arts, entertainment, recreation, accommodation and food services	76	233	128	233	215	62	153	82	5,955	416,911
Other services (except public administration)	54	107	27	110	122	37	97	71	3,391	207,049
Public administration	37	91	91	63	37	10	80	27	1,804	157,508

2011-2015 American Community Survey 5-Year Estimates

Current Economic Outlook and Jobs Forecast

As of the writing of this Master Plan Update, the nation is recovering from the 2008 economic recession. The economy of Southeast Michigan, in particular, suffered in the early 2010s as the auto industry made changes due to consumer demands and increased global competition. Many households experienced financial hardship, but with the economy in recovery, residents are increasingly finding steady work and home values are stabalizing.

According to data from the U.S. Department of Labor, Bureau of Labor Statistics, the June 2010 unemployment rates for Michigan, the Detroit-Warren-Livonia metropolitan area, and the Monroe metropolitan area stood at 13.1 percent, 14.3 percent, and 12.9 percent, respectively. As of July 2017, unemployment rates for Michigan, the Detroit-Warren-Livonia metropolitan area, and the Monroe metropolitan area were at 3.7 percent, 4.4 percent, and 5.9 percent, respectively. This significant decrease in the unemployment rate demonstrates a regional economic recovery.

The most current data relating to future employment within Summerfield Township and Monroe County are presented in Table 13. In the short term, the number of jobs in the Township are projected to decrease 2 percent between 2020 and 2025. In 2030, the number of jobs is expected to rise by 9 percent and will stay relatively stable through 2040.

Income Characteristics

The data presented in Table 14 describe the income characteristics for the residents of Summerfield Township. Data for surrounding areas, Monroe County, and the State of Michigan are also provided for comparison purposes.

Table 14 describes the median household, median family, and per capita incomes, as well as the percent of persons below the poverty line. A household is defined as all the persons who occupy a dwelling unit. Thus, a household may be one person living alone, two roommates, or a married couple with children. A family is defined, as might be expected, as a householder and one or more other persons living in the same dwelling unit who are related by blood, marriage or adoption. The income values are shown in 2015

Table 13: Jobs Forecast: 2020-2040

Place	2020	2025	2030	2035	2040	
Summerfield Township	651	639	696	698	702	
Monroe County	56,928	57,637	58,669	60,081	61,382	

SEMCOG 2040 Forecast

constant dollars based on the Consumer Price Index (CPI) values. The CPI is a measure of the average change over time in the prices paid by consumers for a market share of consumer goods

and services. Table 14 compares income variables in 2010 and 2015, where \$1.00 in January 2015 is equivalent to \$1.08 in January 2010. The values in Table 14 have accounted for this rate of inflation.

Summerfield Township reported median household and median family incomes of \$66,518 and \$77,009, respectively, in 2015. These figures, on average, are significantly higher than those of most surrounding communities. These values were also significantly higher than those for Monroe County and the State as a whole. The per capita income for Summerfield Township for 2015 is relatively similar to the surrounding communities and Monroe County.

Table 14 also details the percentage of persons below the poverty level (of all individuals for whom poverty status was determined) for Summerfield Township, surrounding communities, Monroe County, and the State of Michigan. In 2015, 9.1% of individuals in the Township were below the poverty level. This percentage is lower than the county and the state, but higher than the average of the surrounding communities. It is also worth noting that the proportion of Summerfield Township residents experiencing poverty has more than doubled in the past five years.

Table 14: Income and Poverty: 2010*-2015 (*adjusted for inflation to 2015 dollars)

	Median Ho	ousehold	Median	Family			% Below	Poverty
Place	Inco	me	Inco	ome	Per Capit	a Income	Level**	
	2010	2015	2010	2015	2010	2015	2010	2015
Summerfield Township	\$ 67,106	\$66,518	\$80,164	\$77,009	\$27,023	\$26,693	4.1%	9.1%
Monroe County								
Dundee Township	\$ 57,529	\$53,119	\$61,698	\$60,958	\$25,693	\$26,214	8.2%	9.4%
Village of Dundee	\$ 48,889	\$44,212	\$53,100	\$55,816	\$24,801	\$23,604	9.4%	12.2%
lda Township	\$ 76,401	\$78,333	\$80,312	\$85,889	\$28,891	\$34,215	6.1%	2.6%
Whiteford Township	\$ 58,814	\$57,931	\$72,139	\$71,463	\$26,191	\$26,920	5.9%	5.2%
City of Petersburg	\$ 55,857	\$51,719	\$63,294	\$59,453	\$24,315	\$24,989	11.0%	6.1%
Lenawee County								
Blissfield Township	\$ 44,411	\$48,159	\$64,872	\$70,243	\$26,046	\$25,734	8.9%	14.9%
Deerfield Township	\$ 58,295	\$60,714	\$67,950	\$71,538	\$24,446	\$29,163	11.9%	8.6%
Monroe County	\$ 59,795	\$55,653	\$71,873	\$67,811	\$27,562	\$26,982	9.0%	11.3%
Michigan	\$ 52,307	\$49,576	\$65,168	\$62,247	\$27,146	\$26,607	14.8%	16.7%

^{**}All individuals for whom poverty status is determined/percent below poverty level 2006-2010, 2011-2015 American Community Survey 5-Year Estimates

STATE EQUALIZED VALUE

One indicator of the economic strength of a community is the State Equalized Value (SEV). According to Michigan law, the SEV is equal to approximately one-half of the true market value of real property and certain taxable personal property. The taxable value is used for computation of the tax base for a community.

Historical Data

SEV data for Summerfield Township and Monroe County are provided in Table 15. The equalized value of real property in Summerfield Township has been growing over the past five years. The largest growth was between 2014 and 2015 when the SEV for total real property in the Township increased by 7.5 percent. Since 2015, the rate of growth has been approximately 4 percent per year.

For the most part, the Township's SEV for the agricultural, commercial, and industrial sectors have remained relatively steady between 2013 and 2017. The agriculture sector experienced gradual growth over the five year period, and the industrial sector saw a sizeable growth between 2016 and 2017. However, the Township's overall SEV increase can mostly be attributed to the rise in residential values. Between 2014 and 2015, the SEV for residential property increased by 9.2 percent, and every other year over the five-year time period experienced growth.

In 2017, residential real property constituted 68.3 percent of the total real property tax base, followed by agricultural property at 28.6 percent. The commercial real value percentage of the total tax base has remained steady, and in 2017 was 2.2 percent. The industrial percentage increased slightly in the past year, from 0.3 percent in 2016 to 0.0 percent in 2017.

SEV Comparison

State Equalized Value trends for Monroe County are similar to those of Summerfield Township. Since 2014, the County's total SEV has increased by approximately 5 percent every year. The proportion of residential and agricultural property value is larger in Summerfield Township than it is in the County. While the County has a larger proportion of commercial and industrial property.

Table 15: State Equalized Value (SEV): Real Property 2013-2017

Veer	Year Place		lture	Commercial		Industrial	
rear	Place	SEV	% of Total	SEV	% of Total	SEV	% of Total
2013	Summerfield Township	40,947,400	29.8%	3,419,300	2.5%	482,500	0.4%
2010	Monroe County	450,288,037	8.3%	709,134,804	13.0%	1,011,100,961	18.6%
2014	Summerfield Township	40,805,200	29.5%	3,503,600	2.5%	367,400	0.3%
2014	Monroe County	456,457,540	8.3%	677,231,990	12.3%	999,984,273	18.2%
2015	Summerfield Township	42,427,400	28.5%	3,623,100	2.4%	390,600	0.3%
2010	Monroe County	467,695,576	8.1%	695,904,435	12.1%	1,015,109,900	17.6%
2016	Summerfield Township	43,568,400	28.1%	3,404,220	2.2%	395,000	0.3%
2010	Monroe County	495,802,684	8.2%	699,978,949	11.5%	1,027,359,170	16.9%
2017	Summerfield Township	46,478,600	28.6%	3,551,000	2.2%	1,459,700	0.9%
2017	Monroe County	528,972,219	8.2%	737,698,110	11.5%	1,062,632,890	16.5%

Veer	Place	Reside	ntial	Develop	Total Real	
rear	Year Place		% of Total	SEV	% of Total	SEV
2013	Summerfield Township	92,576,600	67.4%	0	0.0%	137,425,800
2013	Monroe County	3,257,793,146	59.9%	13,155,380	0.2%	5,441,472,328
2014	Summerfield Township	93,621,250	67.7%	0	0.0%	138,297,450
2014	Monroe County	3,345,120,214	61.0%	9,357,380	0.2%	5,488,151,397
2015	Summerfield Township	102,246,950	68.8%	0	0.0%	148,688,050
2013	Monroe County	3,582,592,180	62.1%	9,520,960	0.2%	5,770,823,051
2016	Summerfield Township	107,666,021	69.4%	0	0.0%	155,033,641
2010	Monroe County	3,846,540,325	63.3%	9,410,160	0.2%	6,079,091,288
2017	Summerfield Township	110,949,160	68.3%	0	0.0%	162,438,460
2017	Monroe County	4,086,471,763	63.6%	8,187,730	0.1%	6,423,962,712

Michigan Department of Treasury State Tax Commission

HOUSING PROFILE

The Housing Profile section of the Master Plan describes the housing stock by age, type, value and tenure for Summerfield Township. This analysis will assist the Township in determining its future housing needs based on the characteristics of existing structures.

Type of structure

Data in Table 1 detail the residential structure types found in Summerfield Township and surrounding areas. The housing stock in Summerfield Township is overwhelmingly composed of single-family detached dwelling units. According to the 2011- 2015 American Community Survey 5-Year Estimates, 99 percent of the housing stock was categorized as one-unit structures. This distribution of structural types is consistent with that of the surrounding area except for the higher percentage of multi-family dwellings found in the adjacent communities.

Table 16: Type of Housing Units: 2015

Tuble 10. Type of Housing									_
Place	Total housing units	1-unit, detached	1-unit, attached	2 units	3 or 4 units	5 to 9 units	10 to 19 units	20 or more units	Mobile home
Summerfield Township	1,222	1,190	20	7	0	0	0	0	5
Monroe County									
Dundee Township	3,091	2,233	132	103	87	34	104	221	177
Village of Dundee	1,864	1,134	55	80	87	34	104	193	177
lda Township	1,957	1,854	0	30	49	24	0	0	0
Whiteford Township	1,934	1,788	53	9	46	8	30	0	0
City of Petersburg	531	438	7	40	19	16	11	0	0
Lenawee County									
Blissfield Township	1800	1366	22	22	89	39	0	0	262
Deerfield Township	624	577	8	17	0	4	9	0	9
Monroe County Michigan	63,403 4,539,838	48,436 3,272,125	1,845 211.330	1,143 113.297	1,119	1,836 192,278	1,263 163.002	2,229 226.576	5,532 243.416

2011-2015 American Community Survey 5-Year Estimates

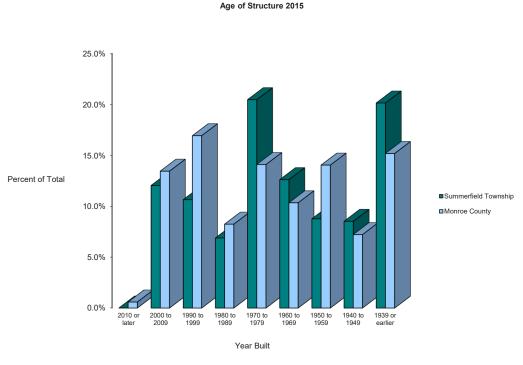
AGE OF STRUCTURE

The age of a dwelling unit is a factor used to evaluate the structural quality of the unit. The average industry standard for the life span of a single-family dwelling is generally 50 years. However, this typical life span often depends on the quality of the original construction and continued maintenance of the unit. Using this standard, some homes within the Township constructed prior to 1970 may be approaching the end of their utility.

Table 17: Age of Structure: 2015

	Summer	field Township	Mon	roe County
Year Structure Built	Number	Percent of Total	Number	Percent of Total
2010 or later	0	0.0%	372	0.6%
2000 to 2009	147	12.0%	8,519	13.4%
1990 to 1999	130	10.6%	10,728	16.9%
1980 to 1989	84	6.9%	5,218	8.2%
1970 to 1979	250	20.5%	8,933	14.1%
1960 to 1969	154	12.6%	6,549	10.3%
1950 to 1959	107	8.8%	8,897	14.0%
1940 to 1949	104	8.5%	4,568	7.2%
1939 or earlier	246	20.1%	9,619	15.2%
Total Structures	1,222	100.0%	63,403	100.0%

2011-2015 American Community Survey 5-Year Estimates



Data in Table 17 identifies the age of year-round residential structures for Summerfield Township and Monroe County. As can be seen, the vast majority of the units (70.5 percent) in Summerfield Township were built in the decades prior to 1980. Approximately 50 percent of homes in Summerfield Township were built prior to 1970. When taking into consideration the average life span of a dwelling unit, about half of the single-family homes in the Township may reach marginal utility by the end of the decade in 2020. These homes will require regular maintenance to remain structurally sound.

Summerfield Township is somewhat dissimilar in the age of its structures as compared to Monroe County. The homes in Summerfield are slightly older. The majority of homes in Summerfield Township were built between 1970-1979, followed closely by homes built prior to 1940. In contrast, the majority of homes in Monroe County were built between 1990-1999. Summerfield Township has 70.5 percent of its structures built before 1980 while Monroe County has only 60.8 percent. As can be seen by the adjacent graph, construction of new homes in both the Township and the County has significantly decreased in recent years.

Housing Tenure

Table 18: Summerfield Township Housing Occupancy: 2000-2015

	2000	2015
Occupied Housing Units	1098	1145
Owner-Occupied Housing Units		1011
Renter-Occupied Housing Units	128	134

2000 US Census - SF1, 2011-2015 American Community Survey 5-Year Estimates

Housing occupancy characteristics are presented in Tables 18 and 19. According to the 2015 American Community Survey estimates, 1,145 housing units were occupied. Of those homes, housing tenure was split between owner occupied (88.3 percent) and renter occupied (11.7 percent). Proportional growth has occurred over

the past 15 years, as the same percentages of owner occupied and renter occupied housing units were maintained.

Table 19: Housing Occupancy and Tenure: 2015

	Total Housing	Owner-Occupied	Renter-Occupied	Vacant Housing
Place	Units	Housing Units	Housing Units	Units
Summerfield Township	1,222	1,011	134	77
Monroe County				
Dundee Township	3,091	2,090	806	195
Village of Dundee	1,864	1,132	593	139
lda Township	1,957	1,743	123	91
Whiteford Township	1,934	1,401	339	194
City of Petersburg	531	387	122	22
Lenawee County				
Blissfield Township	1800	1340	329	131
Deerfield Township	624	489	89	46
Monroe County	63,403	46,537	12,029	4,837
Michigan	4,539,838	2,728,815	1,112,333	698,690

2011-2015 American Community Survey 5-Year Estimates

Approximately 6 percent of the Township's housing stock was vacant in 2015 (77 units). Housing vacancy rates are indicative of local housing market conditions. Generally, a five percent vacancy rate is considered necessary to provide an adequate housing selection and to keep home prices from rising faster than inflation. Vacancy rates below five percent indicate a restricted housing market. Based on the 6.3 percent vacancy rate in Summerfield Township, the supply of housing currently appears to be sufficient for the sale or rental needs of the local population.

Housing Values

Concurrent with the boom in residential housing construction beginning in the 1950s, the dream of home ownership began to be realized by many households. As illustrated in Table 20, the bulk of owner-occupied home values in Summerfield Township ranged between \$1000,000 and \$200,000. Approximately 29.7 percent of owner-occupied homes in the Township were identified with a value greater than \$200,000. In general, the housing values for Summerfield Township are higher than those in the surrounding area. The Township's median home value is \$159,100. Only Ida Township and Whiteford Township have higher median home values.

The median gross rent for the Township is \$1,083, which is significantly higher than that of the surrounding communities, Monroe County, and the State as a whole. Approximately 27.7 percent of the renter occupied units in the Township have a gross rent less than \$1,000. Surrounding communities average 84.6 percent, 72.9 percent in Monroe County, and 73.6 percent for the State of Michigan.

Recent Housing Value Trends

Over the past several decades, average housing values at the local level have generally been on the rise, particularly during the 1990's and 2000's in the midst of a generally robust housing market. However, following the 2008 economic recession, the nation as a whole experienced a significant housing

Table 20: Housing Values: 2015

A		
Owner	-Occu	ıbıea

Place	Specified Units	Less than \$50,000	\$50,000 to \$99,999	\$100,000 to \$149,999	\$150,000 to \$199,999	\$200,000 to \$299,999	\$300,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 or more	Median (dollars)
Summerfield Township	1,011	38	111	283	279	237	57	4	2	159,100
Monroe County										
Dundee Township	2,090	148	439	515	554	376	19	28	11	143,400
Village of Dundee	1,132	125	320	277	333	66	0	0	11	118,400
lda Township	1,743	80	134	436	520	364	147	47	15	172,900
Whiteford Township	1,401	76	234	308	353	332	68	23	7	161,800
City of Petersburg	387	35	163	112	55	12	10	0	0	97,800
<u>Lenawee County</u>										
Blissfield Township	1,340	209	386	356	173	97	74	19	26	108,500
Deerfield Township	489	44	150	135	88	56	14	2	0	115,200
Monroe County	46,537	5,820	8,822	11,117	10,014	7,716	2,347	505	196	137,200
Michigan	2,728,815	428,909	663,677	536,873	434,030	384,790	202,312	62,091	16,133	122,400

Renter-Occupied (Gross Rent)

	,									
Place	Specified	Less than	\$500 to	\$1,000 to	\$1,500 to	\$2,000 to	\$2,500 to	\$3,000 or	No cash	Median
riace	Units	\$500	\$999	\$1,499	\$1,999	\$2,499	\$2,999	more	rent	(dollars)
Summerfield Township	94	7	19	68	0	0	0	0	40	1,083
Monroe County										
Dundee Township	709	107	522	58	0	0	22	0	97	768
Village of Dundee	582	107	415	38	0	0	22	0	11	771
Ida Township	123	37	69	17	0	0	0	0	0	712
Whiteford Township	302	6	214	69	8	5	0	0	37	728
City of Petersburg	112	16	75	21	0	0	0	0	10	695
Lenawee County										
Blissfield Township	301	43	201	57	0	0	0	0	28	778
Deerfield Township	69	12	36	21	0	0	0	0	20	695
Monroe County	11,159	1,672	6,462	2,643	244	96	22	20	870	784
Michigan	1,050,505	155,388	617,876	214,721	41,018	12,662	4,309	4,531	61,828	783

2011-2015 American Community Survey 5-Year Estimates

market slump. During this period housing values experienced decline and new construction remained conservative. Over the past decade, markets have stabilized and housing values are starting to regain the losses they suffered. Between 2014 and 2015, the median home value increased for the first time since 2010.

BUILDING PERMIT TRENDS

Summerfield Township, along with the rest of the country, is recovering from

Table 21: Building Permits: 2007-2017

Table 21: Bullang Fernits: 2007-2017							
Year	Total Units (All Single- Family)	Total Demolitions	Net Total				
2007	6	1	5				
2008	3	0	3				
2009	2	1	1				
2010	0	0	0				
2011	2	1	1				
2012	1	1	0				
2013	6	2	4				
2014	5	3	2				
2015	4	1	3				
2016	4	0	4				
2017	4	2	2				
Total	37	12	25				

SEMCOG Building Permit Database 2007-20017

the economic recession of 2008. The current amount of new construction happening in the Township is much less than the amount of construction that occurred in the early 2000s. According to SEMCOG, between 2000 and 2006, approximately 16 new single family homes were constructed each year. As seen in Table 21, the total number of permits issued by Summerfield Township for new residential construction (does not include additions, renovations, etc.) has been conservative over the past decade, but has shown stabilization recently. Over the ten year span, the Township issued 37 building permits for new housing construction, all of which were single-family residential units. During the same period, the Township issued 12 permits for housing unit demolitions for a net total of 25 permits.

EXISTING LAND USE

The focus of this chapter is an examination of current land use patterns, their distinguishing characteristics and their impact on future land development. One of the most important tasks of a Master Plan is to develop a firm understanding of the types of land use activities that are currently taking place within the community. A thorough knowledge of existing land use patterns and site conditions furnishes planners and community leaders with basic information by which future residential, commercial, industrial and public land use decisions can be made.

The existing land use map and acreage tabulation chart, provided in the following pages, will serve as key reference points for Township officials to utilize in their consideration of land use and infrastructure improvements in the future.

METHODOLOGY

The initial existing land use information was derived from field inspections by Summerfield Township representatives in 2004. Each representative was given a base map of a section of the Township familiar to them, and was asked to record land uses for the parcels generally larger than ten acres in size. Because these representatives had a more intimate knowledge of the area, it was less problematic for them to determine the exact use of each parcel, especially in cases such as an agricultural parcel lying fallow, or when a home is located beyond sight distance from the road. Each section completed by the Township was reviewed by Wade-Trim and then combined to form a Township-wide base map.

Using this map, an aerial photography review was conducted by Wade-Trim

in October 2017 in order to confirm some of the Township findings, as well as to categorize the smaller parcels in the Township by land use. The resulting Existing Land Use Map (Map 7) was prepared using ESRI ArcGIS software. Acreage tabulations for each land use classification are presented in Table 22.

The entire Township encompasses 27,350 acres, or about 42.7 square miles of land. However, existing land use percentage values were calculated against a total of 25,974 acres. This acreage value describes the total Township land minus the acreage for existing road rights-of-way.

Table 22: Existing Land Use 2017

Category	Acreage	Percent of Total
Agricultural	17,860	68.8%
Agricultural Family	1,384	5.3%
Single-Family	3,235	12.5%
Commercial	23	0.1%
Industrial	144	0.6%
Recreation	266	1.0%
State Land	430	1.7%
Public	59	0.2%
Semi-Public	198	0.8%
Vacant	2,020	7.8%
Water	355	1.4%
Totals	25,974	100.0%

Source: Summerfield Township and Wade Trim field survey of October 2017





Each existing land use was placed in one of ten general land use categories (not including Water Bodies). The Existing Land Use Map depicts the geographic distribution of the land use classifications.

Existing land use categories are:

Agricultural

Any related land use of, or developed in conjunction with, farms or farming related uses, including associated farmstead homes.

This land use occupies 17,860 acres or 68.8 percent of the total land area of the Township, easily making it the Township's most prevalent land use. Summerfield Township's farms are utilized for a wide variety of purposes including field crops, orchards, Christmas tree farms, and grazing lands.

Agricultural Family

This category includes single-family detached homes used as a permanent dwelling along with accessory structures, such as garages, that are related to theses units, and which are located on parcels greater than ten acres in size. In general, these very low density residential parcels retain more of a rural and agricultural character. If sold, these parcels are sufficient enough in size to have the potential for future agricultural production.

In total, lands classified as agricultural family comprise 1,384 acres or 5.3 percent of the Township. These agricultural family properties are most heavily concentrated in the eastern half of the Township.

Single-Family Residential

This category includes single-family detached homes used as a permanent dwelling along with accessory structures, such as garages, that are related to theses units, and which are located on parcels less than ten acres in size. These residential parcels are generally more suburban in character.



Such development occupies 3,235 acres, or 12.5 percent, of the total Township land area. In 2004, single-family residential land use occuped 8.5 percent of the Township's land area. Residential land use is growing in the Township, the category has grown 4 percent over the past decade, or an increase of greater than 1,000 acres. As with the agricultural family uses,

these single-family uses are most heavily concentrated along the County roads in the eastern half of the Township. Currently, there are no large scale single-family residential subdivisions within the Township.

Commercial

This land use category includes the land area occupied by uses providing retail and service facilities that accommodate day-to-day convenience and general shopping needs. Office uses, including financial institutions, medical, and professional service establishments, are also included in this category. Typical commercial uses within Summerfield Township include convenience stores, automobile service stations, and commercial storage facilities.

In total, commercial land uses occupy only 23 acres or 0.1 percent, of all land uses within the Township. Most of the commercial uses are found just outside the City of Petersburg or near U.S. 23.

Industrial

This category includes land areas occupied by both light and heavy industrial facilities. Uses in this category include manufacturing facilities, warehouses, and storage and leasing facilities. Agriculturally-related uses, such as grain elevators, are also coded as industrial lands.

Currently, there are 144 acres, or 0.6 percent of the Township, providing industrial services. The two largest industrial properties are found along Ida West Road between the City of Petersburg and at the U.S. 23 interchange.

Recreation

This category includes all City, County, State, and other publicly owned park and recreation properties and facilities. Also included are privately owned recreation facilities such as campgrounds and golf courses.

In total, 266 acres or 1.0 percent of the lands in the Township are categorized as recreation land uses. The largest such use is a golf course located east of the City. Other recreational uses include public school athletic fields and several campgrounds.

State Land

Lands that are owned and operated by the State of Michigan for purposes such as conservation or research are included in this category.

In total, 430 acres or 1.7 percent of lands in the Township are under State ownership.

Public

This land use category was established to embrace all developed lands owned by various governmental agencies.

Only three such properties are found in the Township, comprising a total of 59 acres, or 0.2 percent of the Township's land. These properties include the high school east of the City, the Township Fire Station south of the City, and the Michigan Rest Stop along U.S. 23.

Semi-Public

This land use category includes lands developed for such uses as churches, fraternal organizations, cemeteries, and private utility providers.

Semi-public land uses occupy 198 acres or 0.8 percent of the total land area of the Township.

Vacant

This land use category includes all lands which are presently unused, including forested areas, undeveloped lots or lots with vacated buildings. There are 2,020 acres of land, comprising 7.8 percent of the Township, classified as vacant.

Water Bodies

The River Raisin and two small lakes comprise 355 acres or 1.4 percent of the total Township land area.

Market Assessment

Future land use decisions within Summerfield Township should be couched with a sound understanding of potential markets within the community. An examination of these existing and potential markets for residential, commercial and industrial land uses will assist in forecasting possible demand. The Township can then respond accordingly in the development of the Future Land Use Map. The analysis will be based upon data collected in our 2017 land use survey and figures provided by the Urban Land Institute that offer recommendations for land use mixes. Any and all recommendations or projections should be further couched, however, in the economic trends of the larger regional economy inclusive of Summerfield Township, as well as other demands, including infrastructure pressures and building densities.

RESIDENTIAL NEEDS

Residential land uses, including single-family and agricultural family units, comprise 17.8 percent of the total acreage in Summerfield Township.

A variety of factors weigh in on current housing trends. Typically in American communities, households are getting smaller. Today's families are not having

as many children and the senior population is rising as the baby boomer generation is approaching retirement age. The combination of these factors will impact the demand for housing throughout society, and Summerfield Township is no exception. The goal of the future land use plan, with respect to housing, is to promote a diversity of lot sizes, housing types and

Table 23: Housing Projections

Category	2015	2040	% Change
Total Population	3,262	3,115	-4.5%
Average Houshold Size	2.78	2.44	-12.2%
Total Housing Units Total Occupied Housing Units	1,222 1,145		

2011-2015 American Community Survey 5-Year Estimates, SEMCOG 2040 Regional Development Forecast

housing prices. This will ensure that current and prospective residents have home choices within the Township favorable to their changing economic status and situation.

Data in Table 23 summarize the projected changes to population, average household size and housing stock through 2040 according to the SEMCOG 2040 Regional Development Forecast. The forecast projects that the 2040 Township population will reach 3,115 people. The forecast estimates that the average household size for the Township will decline to 2.44 by 2040. Based on these figures, it is anticipated that an additional 124 occupied housing units (1,269 total) will need to be provided within the Township to accommodate its growing population and the declining number of persons living within each housing unit.

In addition to estimating the changes in population and household size, it is crucial to calculate how much of the total housing stock in the plan year will be vacant, for sale or rent. According to the Urban Land Institute (ULI), five percent of a community's habitable housing stock should generally remain

vacant to provide diversity in housing selection, permit housing rehabilitation, and replacement activities. Vacancy rates at or near the recommended 5 percent threshold ensure that asking prices for housing are indicative of actual market conditions, while protecting private investment. Vacancy rates below five percent demonstrate a restricted housing environment, affording little opportunity for potential households to be absorbed by available units. The vacancy rate for Summerfield Township in 2015 was 6.3 percent according to the 2011-2015 American Community Survey 5-Year estimates. This figure is in line with the suggested threshold.

Assuming a 5 percent vacancy rate remains constant through 2040, a total of 1,336 housing units would be needed within the Township by 2040 (95 percent, or 1,444 housing units, would be occupied). With 1,222 total housing units as of 2015, a total of 114 new housing units will need to be constructed.

Existing residential land use comprises 4,619 acres of the Township (including the Agricultural Family category), or 17.8 percent of the total land area. Currently, of the 2,020 total acres of vacant land in the Township, 686.3 acres are zoned for residential uses. From our review of vacancy rates and projected new units for the Township, the availability of these vacant acres for residential development should begin to meet the potential future residential housing need, while also providing for a balance among residential types.

COMMERCIAL NEEDS

Commercial uses dictate or significantly impact transportation patterns, residential development patterns, employment levels and tax base. Commercial development is also an essential element of a township's economic base. Commercial establishments provide goods and services to consumers, promote economic stability, and generally enhance the quality of life for area residents. However, if commercial districts are not suitably located, and carefully planned, they can become a disruptive element that ultimately detracts from the larger community. The following analysis details the potential commercial base (as delineated by population projection) as well as the likely amount of commercial land that will be consumed by the end of the planning period according to commercial land use standards.

Commercial Land Use Standards

There are many factors that dictate selection of sites for commercial development. In many cases, they respond to preexisting conditions, such as the location of other large retail centers, industrial or residential development, primary transportation corridors, or within central business districts. Communities, however, have an important opportunity through the planning process to direct commercial development and concentrate it in those areas most suited for new development or redevelopment. The

following criteria are some of the primary methods by which commercial developers select sites:

Also, there are three primary types of shopping environments: the neighborhood center, community center and regional center. The standards associated with each center are presented in the following table.

Summerfield Township, based upon current and projected populations and

Commercial Site Selection Criteria¹

- Access (left turns into and out of the site, proximity to traffic lights and/or stop signs.
- Visibility (storefront and store signage from main access route).
- Traffic volume and traffic character (local versus through traffic).
- Street network characteristics.
- Proximity to demand generators. A demand generator is something that provides a motivation or reason for potential shoppers to be in a particular location.
- Population/household characteristics.
- Economic characteristics.
- Lifestyle trends and purchasing preferences and habits.
- Availability and cost of existing space.
- Availability and character of appropriately zoned land.
- Availability/capacity of infrastructure.
- Local business climate.
- Competitive environment (store type, location, quality and pricing of merchandise, sales volume).

¹Derived from Real Estate Development Research, LLC. 2002

Typical Shopping Center Standards							
Center Type	Site Size	Composition Population Base		Service Area			
Neighborhood Center	3-15 acres	Supermarket as the principal tenant with other stores providing convenience goods or personal services. Typically GLA of 30,000 to 150,000 square feet.	Trade ares population of 3,000 to 40,000 people	Neighborhood, 5-10 minute drive time, 1.5 mile radius			
Community Center	10-40 acres	Junior department store or variety store as the major tenant, in addition to the supermarket and several merchandise stores. Typically GLA of 100,000 to 450,000 square feet.	Trade area population of 40,000 to 150,000 people	10-20 minute drive time, 3-5 mile radius			
Regional Center	30 - 100 acres	Built around a full-line department store with minimum GLA of 100,000 square feet. Typically GLA of 300,000 to 900,000 square feet.	150,000 or more people	20 minute drive time, 8 mile radius			

Note: GLA represents Gross Leasable Area

Source: Urban Land Institute, Shopping Center Development Handboock, (Washington D.C.) 1999.

geographic size, can support one such neighborhood center. Many of the other commercial service needs are therefore already met by those centers in adjacent communities with a lesser rural orientation.

OFFICE NEEDS

Office Location Factors¹

- Easy access to customers or clients
- Cost and availability of appropriately experience/trained labor in the area
- Cost, functionality, and expandability of available office space (or land suitable for office development)
- State and local business climate
- Quality of life for employees
- Access to higher education
- State and local income and property tax costs, and proximity to cultural and entertainment facilities and shopping (for employees)

¹Louis Harris & Associates, <u>Business American Real Estate Monitor</u>, Cushman & Wakefield, Inc. 1988.

The pattern of office development in metropolitan areas has changed dramatically in the last 20 years. It has shifted away from a focus on downtown areas to a regional "multiple-nuclei" structure of competing centers. Today, for example, Auburn Hills and Troy represent the prestige locations that are capturing new office development.

The reasons for this transformation vary. To a certain extent, it has followed the out-migration of population away from the large city centers. Developers also sought less expensive building sites, which offered regional accessibility and on-site parking convenience for tenants. It also is a reflection of meeting unmet demand, as our local economy continues to change from a manufacturing-base economy to a service oriented economy.

Not unlike commercial development, there is a set of very specific standards that make sites of various sizes and locations desirable to different potential office development. The chart below illustrates some of these criteria.

As the majority of these criterion are subjective and thus should only be considered in the Township's existing ability to meet these standards when compared to other local population centers already providing these services.

INDUSTRIAL NEEDS

As of 2004 there were 113 acres, or 0.4 percent, of the Township, currently in use for industrial purposes.

The quantity of developed industrial land a community will need in the future is dependent upon its current employment base, infrastructure capacity, local political philosophy, as well as a myriad of other factors industries consider when choosing a location for a new facility.

The following information will summarize three methodologies commonly used in estimating future industrial land area needs. They are population, land use, and employment density ratios.

Population Ratio Method

The first method, population ratios, represents acreage requirements as a proportion of the total population. Data

Table 24: Population Ratios for Estimating Industrial Land Use

Category	Ratio
Total gross land requirement for all industry	12 acres/ 1,000 population
Land requirements for light industry	2 acres/ 1,000 population
Land requirements for heavy industry	10 acres/ 1,000 population

Joseph DeChiara and Lee Kopplemand, Planning Design Criteria

in Table 24 indicate that a total of 12 acres of industrial land are required for every 1,000 people. The Township's projected population in the year 2035 of 3,757 persons (SEMCOG) would therefore, require 45.1 acres of industrial land. The standard then continues to break down this requirement by light and heavy industry. The population ratio method determines that the light industrial type would require 2 acres per 1,000 population or a total of 7.5 acres. Heavy industry, at 10 acres per 1,000 people, would account for 37.6 acres. When examining the present total of developed industrial land, by this methodology Summerfield Township already has more than the recommended amount of this type of development.

Land Use Ratio Method

Estimating needed acreages of industrial land use can also be accomplished by employing land use ratios. By surveying the amount of land devoted to industrial uses in other communities, an average can be calculated and used as a standard for planning purposes. Using this standard, as seen in Table 25, seven percent of the Township's land area should be utilized for industrial development. This equates to approximately 1,818 acres. This seven percent value is valid up to a small city or town population of 100,000 people. By this methodology, Summerfield Township could feasibly develop an additional 1,705 acres of industrial land. This methodology should also

be examined, however, in terms of the Township's development character, as the Township is not as densely developed as a typical small city or town and its existing population is on the extreme low end of the scale.

Table 25: Community Size for Estimating Industrial Land Use

Community Size	Percent Industrial Land Average	
Small Cities and Towns (under 100,000 people)	7%	

Planner's Advisory Service Memo, Bringing Land Use Ratios into the 1990's, August 1992.

Employment Density Ratio Method

The use of employment/density ratios is another tool for projecting future industrial land use. With a knowledge of the current number of industrial jobs in the community and the current industrial acreage, an existing industrial employment/density ratio can be calculated. If a future job projection is known, then the employment/density ratio can be applied to determine the future industrial acreage, assuming that the current employment/density ratio remains steady into the future. The results of this method are displayed in Table 26.

Industrial Location Factors¹

- Easy access to domestic markets as well as suppliers.
- Availability of sites with existing electricity, water, sewage and roads suitable for year-round truck traffic.
- Cost, availability, and skills of labor in the area, and the extent of labor/management problems for unionized labor force.
- Easy access to raw materials.
- State and local business climate.
- Utility costs and capacities.
- Access to higher education.
- State and local income and property tax costs, and proximity to cultural and entertainment facilities and shopping (for employees).

¹Lousi Harris & Associates, <u>Business American Real Estate Monitor</u>, Cushman & Wakefield, Inc. 1988.

According to SEMCOG, 454 total jobs were based within Summerfield Township as of 2005. Due to confidentiality concerns, SEMCOG is not able to identify the number of jobs by industry sector (i.e., manufacturing, retail, education, etc.) within Summerfield Township, and thus, the total number of "industrial jobs" within the community was not able to be determined. However, within the entire Southeast Michigan region, 20 percent of all jobs are currently (2005) considered industrial jobs, which include the following sectors: natural resources, mining and construction; manufacturing; wholesale trade; transportation and warehousing; and utilities. Based on this region-wide average, it can be assumed that of the 454 total jobs within Summerfield Township in 2005, approximately 20 percent or 91 were "industrial jobs."

As of 2004, 113 acres of land within Summerfield Township were classified as industrial land. With 91 industrial jobs, the current industrial employment density ratio within the Township is 1.22 jobs per acre.

SEMCOG projects that 527 total jobs will be located within Summerfield Township by 2035. Again, precise numbers for the Township's industrial jobs in 2035 are not available, thus, we will utilize the 2035 region-wide industrial

Table 26: Employment/Density Ratios for Estimating Land Use

Existing Industrial Acreage (2004)	Existing Industrial Jobs (2005)	Existing Industrial Employment Density (Jobs per Acre)	Industrial Jobs Projection (2035)	Future Industrial Acreage (2035)
113	91	1.22	67	87.7

Analysis by Wade-Trim, based on Summerfield Township Existing Land Use and SEMCOG 2005-2035 Jobs Forecast; Assumes that 20% of jobs in Summerfield Township were industrial jobs in 2005 (2005 SEMCOG region average); Assumes that 12.8% of jobs will be industrial jobs in 2035 (2035 SEMCOG region average).

job percentage to determine the total industrial jobs within the Township. Of all the jobs projected for the Southeast Michigan region in 2035, only 12.8 percent are projected to be industrial jobs, This is a decline from 2005 but consistent with recent economic trends. Based on the region-wide average, a total of 67 industrial jobs (12.8 percent of the 527 total jobs) will be found in Summerfield Township by 2040. Assuming that the current jobs per acre ratio remains steady, Summerfield Township would require 87.7 acres of industrial land by 2035, which is less than the industrial acreage currently found in the Township.

However, this decrease in industrial acreage based on the employment/ density ratio is likely an underestimation of the true need due to a national trend toward increasing floor space requirements for each manufacturing employee. According to the Planner's Estimating Guide to Projecting Land Use and Facility Needs (Nelson, 2004), the total square footage required for each manufacturing employee has increased from 389 sq. ft. in 1961 to 546 sq. ft. in 2000, representing an approximately 40 percent increase over the 40 year time span. If trends continue, this square footage requirement per manufacturing employee will continue to rise to the year 2035. Therefore, it is likely that the projected decline in industrial land by 2035 will be offset by the rising floor space requirements per employee.

Summary

Each of the above methods to projecting future industrial land use leads to different figures, thus, the results are inconclusive. It is suggested, then, that the Township consider other factors when planning for future industrial land, such as the presence of a catalyst industry that may foster ancillary development, the amount of land that is available and suitable for industrial development, and the aspirations of Township officials and citizens.

Goals, Objectives and Strategies

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

In order to appropriately administer goals and objectives, and implement the strategies of each, it is important to understand the role of goals, objectives and strategies and their relationship to one another. To this end, the following definitions shall apply:

GOALS

A basic statement that sets a critical path, provides direction, and describes to the organization what the desired outcome should look like. Goals are a critical part of the planning process in that they are flexible, defining for the community, and timeless. Goals stay with the municipality until they are achieved. Goals are ambitious and general. They address issues and specific needs or challenges, but they are grand in scope and speak to fundamental change and directly serve the mission of the community.

OBJECTIVES

These are the means to achieve a goal. An objective is a plan of action that sets a more specific task within a goal and helps gauge success. Objectives must meet the following criteria:

- An objective must be specific.
- An objective must be measurable, that is, there must be no question that the objective was begun, carried out, and completed and that a tangible result can be produced.
- An objective must be able to be assigned to a responsible party.
 There must be a party made to be in charge of each objective to
 ensure that it will be carried out and that there is no confusion as
 to who should answer for the results of the objective.
- An objective must be trackable, or easy to follow. Each objective
 must be carefully monitored and its status must be known at
 all times. It is essential that the objective be set to a specific
 schedule and "landmarks" within it be set to convey its ongoing
 progress to residents and businesses alike.

STRATEGIES

A strategy is a statement that sets forth the specifics for accomplishment of an objective. An objective that requires a series of specific activities to be completed may, therefore, have multiple strategies. For instance, an objective relating to single-family residential may include activities detailing types of structures, ordinance regulations, transportation options, beautification, etc.

Public Participation

The process of developing the goals, objectives, and strategies for the original 2005 Master Pan involved multiple steps. A January 2005 community workshop was held which allowed participants, through a series of presentation and group activities, an opportunity to brainstorm, and voice opinions about current and future Township issues and concerns. To help with the creation of the goals and objectives, participants were asked to describe the following:

- What qualities of Summerfield Township are you most proud of and want to protect?
 - √ What do you perceive as threats to these qualities?
- What aspects of the Township do you feel are detractors and would want to change?
 - √ What opportunities are available to correct these detractors and build upon existing positive qualities?

Some of the major themes derived from the January 2005 workshop included, but were not limited to, transportation concerns, housing choice, employment, and balance of land development.

A key component of the Summerfield Township Master Plan Update 2018 planning process was a review of the goals, objectives, and strategies originally developed and adopted in the 2011 Master Plan. This review was accomplished through a meeting where the currently adopted goals, objectives, and strategies were reviewed to ensure that they continued to embody the preferred future vision of the Township. As a result of the review, several goals, objectives and strategies were revised to better reflect changing trends, opportunities and the desires of the Township. The revised goals, objectives, and strategy statements presented at the Master Plan adoption public hearing are listed below.

GOALS, OBJECTIVES, AND STRATEGIES

The following text represents the set of goals (the ultimate purposes or intent of the plan), objectives (means of attaining community goals), and strategy statements that were prepared by the above mentioned community driven process. This process offered decision makers an opportunity to understand and address values about their community and at the same time, establishes the parameters around which the Future Land Use Plan will be designed.

GOALS

- Encourage future land uses and development outside of prime agricultural land areas which provide long-term benefits to the community.
- Promote the conservation of local agricultural resources and the continuation of farming activities and related agricultural uses.
- Maintain a community environment that provides for the lifelong living needs of both present and future Summerfield residents that will meet their physical needs, offer variety, choice, opportunity for change, and individual growth.
- Encourage economic development initiatives that service locally oriented business development, as well as limited highway oriented business development within the U.S. 23 corridor, without compromising the Township's rural character.
- Balance the rate of land development with the Township's ability to provide public facilities and services.

Agricultural Land Use

Objectives:

Encourage retention of the best soils and most productive lands for agricultural uses.

Protect prime agricultural lands from fragmentation and the negative impacts of residential encroachment through zoning initiatives.

Strategies:

Review lot splits proposed in agricultural areas to assure well designed land divisions and present unnecessary land fragmentation.

Encourage residential development to be located away from farming operations, and sited to conserve agricultural lands and the rural character of the Township.

Encourage the use of innovative residential subdivision design that helps conserve open space, eliminate poorly designed lot splits, and reduce the number of necessary curb cuts on County roads.

Encourage the retention of productive agricultural lands through available mechanisms such as land trusts, the Monroe County Purchase of Development Rights program, the State's farmland protection program (PA 116) and local zoning initiatives.

Residential Land Use

Objectives:

Provide for a range of residential types based on the changing needs of Township residents to allow for life-long Township living.

Encourage innovative development design that maintains Summerfield Township's rural character and conserves open space through such measures as clustering, Purchase of Development Right (PDRs), Planned Unit Developments (PUDs), Farmland Development Rights Agreements, Open Space Preservation, etc.

Strategies:

Encourage new residential construction to be sited in a manner that enhances natural features, rural character, and open space views.

Promote the development and/or redevelopment of single-family residential areas by offering a myriad of living locales, environments, and options.

Specifically encourage the development of senior living environments and services, which may include adult day care, independent senior housing, assisted living quarters, 24-hour care facilities, and other opportunities that allow for citizens to "age-in-place" within Summerfield Township.

Provide for residential opportunities that are located in existing growth corridors of the Township, specifically along US 23 and around the City of Petersburg.

Encourage the clean up, renovation and repair of aging residential structures in the Township to preserve the existing building fabric and quality residential structures.

Review the Township's approval and enforcement processes for new developments to insure efficient and accurate completion of projects.

Nonresidential Land Use

Objectives:

Improve and expand, as necessary, existing nonresidential areas to provide for convenient and attractive office, commercial and light industrial districts that meet the changing needs of current and future area residents and are compatible with the Township's rural character.

Encourage site and facility design characteristics associated with nonresidential establishments that are compatible with the Township's rural aesthetic.

Strategies:

Encourage office, commercial and light industrial development in locations where compact and coordinated development may occur without impacting agricultural and residential land uses.

Require transitional uses and/or landscape screening between commercial and other land uses, including planned open space areas. Use vegetative windbreaks and/or visual screens in place of man-made materials.

Regulate building massing, signs, parking, and other site design characteristics to minimize clutter, confusion, and aesthetic degradation to respond more appropriately to the surrounding rural context.

Allow for controlled and planned business growth along existing growth corridors, specifically, light industrial development at the US 23/Ida West Road interchange, general commercial development at the US 23/Summerfield Road interchange, and commercial development within the City of Petersburg.

Discourage large-scale nonresidential operations within the Township, including medical marihuana provisioning and growing facilities, which place an excessive burden on public infrastructure systems and services.

Review existing zoning ordinances, review processes, and enforcement procedures to ensure compatibility with Master Plan goals and objectives.

Provide for ordinance enforcement to ensure projects meet the Township's development standards.

Community Facilities

Objectives:

Encourage the development of recreation and open space systems that conserve the Township's unique natural features as well as meet the needs of Township residents.

Support the development, and continued maintenance, of an area-wide multi-modal transportation systems reflective of current and future Township access needs.

Facilitate improvement of area utilities, including, but not limited to, water and sewer services, and ensure that adequate infrastructure capacity is in place commensurate with private development projects.

Support "green" building technologies, sustainable design best management practices and energy conservation techniques within the Township.

Strategies:

Require inclusion of parks, bicycle and pedestrian linkages and open space areas in conjunction with new and established developments.

Encourage public and private recreation facilities which are suitable to their user population in terms of size, character, function and location.

Consider improvement to, or development of, area utilities only to those areas where measurable population densities either exist or will occur and/or natural resource conditions require such facilities to protect public health.

Link development to reduce the number and/or length of vehicular trips so as to help improve overall circulation and safety.

Coordinate relationships between roadways and the context or character of the area, when roadway improvements are designed especially in terms of speed and traffic calming techniques, the number of lanes, road width, alignment, medians and streetscape elements.

Coordinate with Monroe County on access management concerns, specifically with regard to the number of curb cuts permitted on County Roads.

Continue the cooperative relationship with the City of Petersburg for the shared provision of public services and facilities, such as recreation, emergency services, library, and senior services.

Maintain a 5-year community recreation plan to be used as a short term and long term guide for recreation improvements and to ensure eligibility for certain State recreation grant opportunities.

Diligently monitor and seek funding opportunities to develop and improve essential community services.

Consider and allow for, where appropriate, the development of wind and solar energy facilities within the Township.

FUTURE LAND USE

The Future Land Use Map is the physical result of the Master Plan development process. Originally developed through various public participation events during the 2005 master planning process, the currently adopted Future Land Use Map was reviewed at a 2017 Planning Commission meeting to determine whether revisions were necessary. The October workshop consisted of a discussion where participants were asked to evaluate the current future land use categories and their allocations within the Township. In particular, the evaluation focused on the changing conditions and trends that had occurred within the Township in the past 5 years and whether revisions to the Future Land Use Map were warranted as a result of those trends.

The Future Land Use Map equips Summerfield Township Planning Commissioners and elected officials with a literal depiction of the desired development pattern for their community. The Future Land Use Map, derived from the Goals and Objectives, and created through public comment, represents the vision Summerfield Township has established for itself. The Map will be a useful tool on which to base zoning and capital improvements decisions, and will allow for consistent and sound planning in the community.

FUTURE LAND USE PLAN

Prime Agricultural

The Prime Agricultural future land use classification is designed to represent those areas of the Township intended to be used exclusively for agriculture, horticulture, or agribusiness support uses, as well as farmsteads and related agricultural buildings located near the principal dwellings on those farmsteads.

Significant portions of the Township are categorized as Prime Agricultural land. The vast majority of lands west of Sylvania-Petersburg Road, as well as the remainder of the Township lands south of Todd Road and west of US 23, are planned for Prime Agricultural uses. These areas of the Township were outlined as Prime Agricultural because they are considered prime famlands by the U.S. Department of Agriculture (see Map 8). In addition, these properties were considered by the Township to be important areas for the continued use of agricultural enterprise.

Table 27: Future Land Use 2018

		Percent
Category	Acreage	of Total
Prime Agricultural	15,110	58.2%
Agricultural Family	4,164	16.0%
Single-Family Residential	5,676	21.9%
Multi-Family Residential	59	0.2%
Local Commercial	13	0.1%
General Commercial	102	0.4%
Light Industrial	284	1.1%
Public/Semi-Public	214	0.8%
Water	355	1.4%
Totals	25,977	100.0%

There are various techniques which are being implemented to assist in the protection of farmland from encroachment by development, including land trusts, the Monroe County Purchase of Development Rights program, the State's farmland protection program (PA 116), and local zoning initiatives. These techniques should be considered to implement the Township's Goals and Objectives related to agricultural land preservation.

Although the predominated land use within this category should be agriculture, flexibility should be exercised to accommodate other uses if properly harmonized with the surrounding environment. The Township should develop a set of performance standards that demand sensitivity to rural design and impact on environmental features. In addition, uses that blend in with the rural character of these agricultural areas, such as dairies, farm produce actions, and other related agricultural industries, will assist the community's goal to preserve farmland because it allows farmers the option for a second income and thus permitting them to continue practicing farming in all economies.

A total of 15,110 acres, or 58.2 percent of the Township, is planned for Prime Agricultural uses.

Agricultural Family

The Agricultural Family category is intended to provide for rural residential development, including planned open space developments. Land uses within this category would include residential development at a typical density of around one dwelling unit per five acres. Some agricultural uses and home-based businesses may also be permitted under specific conditions. Building sites smaller than five acres may be permitted if the individual project is intended to preserve open space while all on-site water and septic requirements are being met. This category can, therefore, be considered as a transitional land use between the Prime Agricultural portions of the Township and the more densely developed areas.

The Agricultural Family future land use category can be found south of Albain Road, east of Sylvania-Petersburg Road, north of Todd Road, and west of US 23. Smaller parcel sizes are currently found in this area of the Township and agricultural uses are minimal. The Agricultural Family category covers a total of 4,164 acres, or 16.0 percent of the Township.

Single-Family Residential

This category includes single-family detached structures including permanent dwellings and accessory structures, such as garages, that are related to these units. This future land use type aims to provide areas of the Township with density development options while still preserving a suburban residential character with on-site water and septic facilities.

This land use category is primarily located east of US 23, as well as a section of the Township east of the City of Petersburg, south of the River Raisin, west of US 23, and north of Albain Road. These areas of the Township have historically experienced residential development pressure and requests for lot splits. Focusing continued residential development at an increased density at these locations allows the Township to protect prime farmlands while still offering opportunities for new residential growth. A total of 5,676 acres, or 21.9 percent of the Township, is planned for single-family residential.

Multi-Family Residential

This land use designation is intended to provide opportunities for more affordable housing and alternatives to traditional subdivision development. Multi-family development may serve as a transitional land use; one which buffers single-family units from more intensive land uses or the impact associated with transportation corridors

Multi-family land uses include such structures as stacked ranches, multi-family apartment structures, and other group living quarters, in addition to traditional attached single-family development types like townhouses, condominiums, and duplexes. This category is also designed to accommodate various types of senior living environments, such as independent senior housing, assisted living quarters, and 24-hour care facilities. Manufactured, mobile, or modular homes are also permitted within this land use category.

The future land use plan locates this development type east of US 23, just south of Ida West Road. This location was chosen for a multiple-family development because of its ease of access to both US 23 and Ida West Road. US 23 would provide regional access to employment opportunities and Ida West Road allows for direct access to the local school buildings. A total of 59 acres, or 0.2 percent of the Township, is planned for multi-family residential.

Local Commercial

This land use category includes those areas of the Township that are currently developed or are planned to be occupied by retail and service facilities. These commercial areas, thoughtfully designed and oriented, will accommodate the commercial needs of established residential areas within Summerfield Township and will provide for the logical expansion of the commercial areas located within the City of Petersburg.

A total of 13 acres, or 0.1 percent of the Township, are planned for Local Commercial development. As indicated, those properties designated as Local Commercial are found immediately adjacent to the City of Petersburg.

General Commercial

The General Commercial land use category is defined by those types of retail uses that cater to the greater metropolitan region, and are traditionally dependent on major thoroughfare traffic, and thus operate adjacent to significant transportation corridors. Examples of this use type include: larger retail strip developments containing two or more retail/commercial anchors, discount supermarkets, automotive sales and service, commercial lodging, large super center retail stores, restaurants, etc.

General Commercial land uses are planned directly adjacent to the US 23 interchange area at Summerfield Road. A total of 102 acres, or 0.4 percent of the Township, are planned for General Commercial uses.

Light Industrial

This land use category is characterized by properties with high tech uses and functions, including light-manufacturing, telecommunications, and office roles. In addition, industrial land uses are classified by the existence of wholly enclosed wholesale activities, warehouses, and industrial operations whose external physical effects are restricted to the site and do not have a detrimental effect on the surrounding area. It is not the intent of this land use category to encourage manufacturing, assembling, and fabrication activity whose physical effects could potentially impact surrounding development.

Due to the lack of proper infrastructure within the Township, only a small portion of land area is planned for industrial uses. These areas are located along Ida West Road, predominately near US 23. A total of 284 acres, or 1.1 percent of the Township, is planned for light industrial use.

Public/Semi-Public

This category was established to embrace all developed or undeveloped lands owned by various governmental and public agencies and institutions (including municipal services, schools, religious uses, and park space). This category also includes land devoted to utilities. A total of 214 acres, or 0.8 percent of the Township, is planned for public or semi-public use.

River Raisin Conservation Overlay

The purpose of the River Raisin Conservation Overlay designation is to preserve and enhance the River Raisin, a valuable natural feature in Summerfield Township. Lands within 500 feet of the river's edge have been classified into this overlay. The designation is not intended to prescribe the types of land uses, but rather, how the land is utilized and developed.

Within this area, development should only occur in a manner which does not adversely impact the natural features adjacent to the River Raisin. Any improvements should be setback a minimum of 100 feet from the banks of the river. This includes all buildings, roads, septic fields and septic tanks. Within the 100 foot setback, the removal of any trees, shrubs and brush should be discouraged. For agricultural land uses within the conservation

overlay area, filter strips should be utilized to minimize the secondary effects that agricultural activities, such as fertilizer runoff, may have on the river. Residential development within the conservation overlay should have slightly larger minimum lot sizes to allow for more flexibility in the placement of building footprints and septic systems away from the river. For multi-lot residential developments, it is recommended that the housing units be clustered in the areas suitable for development while the environmentally sensitive areas are reserved for open space or limited recreation.

Summary

The distribution of land, as delineated in the Future Land Use Map, helps to more clearly define the development vision and goals for Summerfield Township by working toward the following:

- The Future Land Use Map ensures stability and balance of land uses: residential areas, natural and agricultural areas, community facilities, and commercial and industrial land uses;
- Facilitates controlled local economic development through agricultural preservation, residential and nonresidential growth; and,
- Solidifies and protects the Township's rural character.

ZONING PLAN

The Summerfield Township Zoning Ordinance is a regulatory tool that guides land use and development within the Township. As stipulated by the Michigan Zoning Enabling Act, Public Act 110 of 2006, the Zoning Ordinance must be based upon a Master Plan. Therefore, this Master Plan, by setting forth the long term vision of Summerfield Township, provides the basis for the Township Zoning Ordinance, which contains the rules that govern the path to that vision.

As required by the Michigan Planning Enabling Act, the following is an explanation of the relationship between the future land use categories presented in this Master Plan and the zoning districts established in the Summerfield Township Zoning Ordinance.

Existing Zoning Districts

The current Summerfield Township Zoning Ordinance has established a total of nine Zoning Districts as follows:

- AG-1 Prime Agricultural
- AG-2 Agricultural Family
- R-1 Single Family Rural Residential
- R-2 Single Family Residential
- RM Multiple Family Residential
- C-1 Local Commercial

- C-2 General Commercial
- I-1 Industrial
- FP Flood Plan

The purpose of the AG-1 District, as generally stated in the Summerfield Township Zoning Ordinance, is to preserve prime agricultural lands as identified in the Township Master Plan and areas which have soils well suited to agricultural activities. Additionally, the district is intended to support the Monroe County Farmland Preservation Ordinance and declare the Township's intention to participate in the County Purchase of Development Rights Program.

The purpose of the AG-2 District is to afford reasonable land uses of a rural, agricultural character for those lands presently rural and undeveloped. It is intended to provide for rural residential development, including planned open space developments.

The Zoning Ordinance has established the R-1 District to provide an area for single-family, non-farm residential development within a rural environment, where soils are suitable and where public sanitary sewer and water facilities are not planned to be extended.

The Zoning Ordinance has established the R-2 District to provide for development of single-family residences at a higher density than that provided in other areas of the Township. This district is designed to reflect the more suburban-like environment upon which it borders and from which growth pressures may occur.

The purpose of the RM District is to provide for more intensive residential use of land, including such dwelling types as townhouses, duplexes, row houses, terrace and garden apartments, condominiums, and mobile home parks. The district is to be used only in those areas of the Township which are served by public water and sanitary sewer facilities.

The C-1 District has been established to provide suitable locations for retail, service, and professional office enterprises which serve a localized market area. The C-2 District has been established to provide suitable locations within the Township for more intense, thorough-fare oriented business types which would often be incompatible with the more restricted commercial uses located within the C-1 District.

The purpose of the I-1 District is to provide for light, primary industrial uses.

The purpose of the FP District, an overlay zone, is to significantly reduce hazards to persons and damage to property as a result of flood conditions and to comply with the provisions and requirements of the National Flood Insurance Program.

Relationship Between the Future Land Use Categories and Zoning Districts

As outlined above, the Summerfield Township Master Plan has established a total of nine Future Land Use Categories:

- Prime Agricultural
- Agricultural Family
- Single-Family
- Multi-Family
- Local Commercial
- General Commercial
- Light Industrial
- Public/Semi-Public
- River Raisin Conservation Overlay

Agricultural/Rural:

The long-term implementation of the agricultural/rural future land use categories outlined in this Master Plan will be generally accomplished, in terms of height, area, bulk, location and use, by the specific requirements outlined in their corresponding agricultural/rural zoning districts, as listed below.

- The Prime Agricultural future land use category is accomplished through the AG-1 Prime Agricultural zoning district.
- The Agricultural Family future land use category is accomplished through the AG-2 Agricultural Family zoning district.

Residential:

The long-term implementation of the residential future land use categories outlined in this Master Plan will be generally accomplished, in terms of height, area, bulk, location and use, by the specific requirements outlined in their corresponding residential zoning districts, as listed below.

- The Single-Family future land use category is accomplished through the R-1 Single Family Rural Residential zoning district.
- The Multi-Family future land use category is accomplished through the RM Multiple Family Residential zoning district.

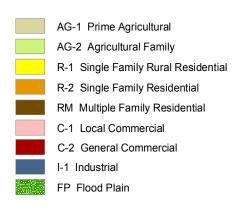
Non-Residential:

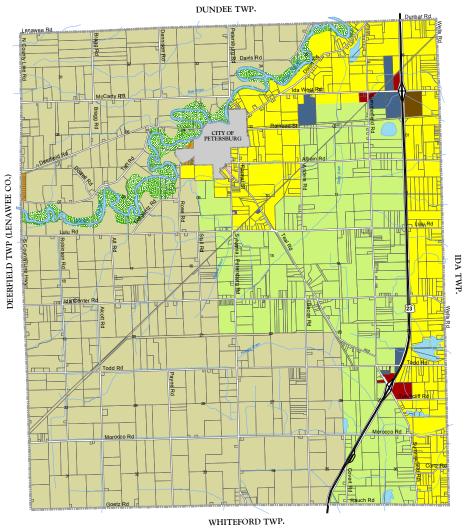
The long-term implementation of the non-residential future land use categories outlined in this Master Plan will be generally accomplished, in terms of height, area, bulk, location and use, by the specific requirements outlined in their corresponding non-residential Zoning Districts, as described below.

- The Local Commercial future land use category is accomplished through the C-1 Local Commercial zoning district.
- The General Commercial future land use category is accomplished through the C-1 General Commercial zoning district.
- The Light Industrial future land use category is accomplished through the I-1 Industrial zoning district.

Summerfield Township Zoning Districts

As Amended through June 2010





The Public/Semi-Public/Recreation future land use category does not relate to any particular Zoning District. Rather, public, semi-public and recreation uses could be accommodated in a variety of Zoning Districts. For example, publicly owned facilities (i.e., libraries, parks) are permitted as special land uses within the AG-1 District and principal permitted uses within all other zoning districts.

Conservation:

Finally, the River Raisin Conservation Overlay future land use category is accomplished through the FP Flood Plain zoning district.

IMPLEMENTATION

The completion of this Future Land Use Plan is but one part of the community planning process. Realization or implementation of the recommendations of the Plan can only be achieved over an extended period of time and only through the cooperative efforts of both the public and private sectors. Implementation of the Plan may be realized by actively:

- Regulating the use and manner of development of property through up to date and reasonable zoning controls, subdivision regulations, building and housing codes, and farmland and open space preservation practices;
- Supporting and ensuring enforcement and administration of inplace ordinances; and, regulations; and,
- Assuring community-wide knowledge, understanding, support, and approval of the Plan.

LAND DEVELOPMENT CODES

Zoning Ordinance

Zoning regulations are adopted under the local police power granted by the State for the purpose of promoting community health, safety, and general welfare. Such regulations have been strongly supported by the Michigan courts, as well as by the U.S. Supreme Court. Zoning consists of dividing the community into districts, for the purpose of establishing density of population and regulating the use of land and buildings, their height and bulk, and the proportion of a lot that may be occupied by them. Regulations with the various zoning districts may be different. However, regulations within the same district must be consistent throughout the community.

Zoning is employed as a means of protecting property values and other public and private investments. The intent of zoning is to support a community's Master Plan to help ensure the orderly development of land. It is an effective tool not only for the implementation of the Plan, but it also benefits individual property owners. Zoning protects homes and investments against the potential harmful intrusion of business and industry into residential neighborhoods or agricultural areas; requires the spacing of buildings far enough apart to assure adequate light and air; prevents the overcrowding of land; facilitates the economical provision of essential public facilities; and aids in conservation of essential natural resources.

A stable, knowledgeable Planning Commission is critical to the success of the zoning process. The Commission's responsibilities not only include long-range plan formulation but the drafting of appropriate, reasonable zoning ordinance regulations designed to implement Plan goals and objectives. Adoption of a zoning ordinance by the legislative body then provides the legal basis for enforcement of zoning ordinance provisions. The ultimate

effectiveness of the various ordinance requirements, however, is dependent upon the overall quality of ordinance administration and enforcement. If administrative procedures are lax, or if enforcement of regulations is handled in an inconsistent, sporadic manner, the result will be unsatisfactory at best.

There are a variety of zoning approaches and techniques which may be employed to help assure that Summerfield Township remains an attractive community in which to live, work, and play. These techniques acknowledge the critical role of both Township officials and staff in enforcing the provisions of the local zoning ordinance. Three key tools available to Township officials seeking to assure quality development are special approval use procedures, performance guarantee provisions, and zoning agreements (commonly referred to as conditional zoning) as authorized by PA 110 of 2006.

Special Approval Uses:

Some land uses are of such a nature that permission to locate them in a given district should not be granted outright but should only be approved after assurances that the use will meet certain specified conditions. These types of land uses are called special approval, conditional approval, and/ or special exception uses. The Township currently uses this flexible zoning process to permit uses of land by following special procedures, including a public hearing and site plan review, to ensure the compatibility of the use within the vicinity in which it is to be located. This technique is based upon discretionary review and approval of special land uses. The site development requirements and standards upon which these decisions are made are specified in the ordinance as required by State law. However, the Township may wish to consider a review of these conditions to ensure that they are meeting the needs of the community. Additional reasonable conditions may be attached, including provisions that would conserve natural resources and measures designed to promote the use of land in an environmentally, socially, and economically desirable manner.

Performance Guarantee:

To ensure compliance with a zoning ordinance and any conditions imposed under the ordinance, a community may require that a performance guarantee, cash deposit, certified check, irrevocable bank letter of credit, or surety bond, acceptable to the Township and covering the estimated cost of improvements on the parcel for which site plan approval is sought, be deposited with the Clerk. This performance guarantee protects the Township by assuring the faithful completion of the improvements. The community must establish procedures under which rebate of cash deposits will be made, in reasonable proportion to the ratio of work completed on the required improvements, as work progresses.

Conditional Zoning:

As a third means of affecting the development process, Summerfield Township should investigate and consider the addition and potential use of zoning agreements as authorized in PA 110 of 2006. This Act provides

for specific action on the part of the applicant within the rezoning process, specifically:

- 1. An owner of land may voluntarily offer in writing, and the township may approve, certain use and development of the land as a condition to a rezoning of the land or an amendment to a zoning map.
- 2. In approving the conditions under subsection (1), the township may establish a time period during which the conditions apply to the land. Except for an extension under subsection (4), if the conditions are not satisfied within the time specified under this subsection, the land shall revert to its former zoning classification.
- 3. The township shall not add to or alter the conditions approved under subsection (1) during the time period specified under subsection (2).
- 4. The time period specified under subsection (2) may be extended upon the application of the landowner and approval of the township.
- 5. A township shall not require a landowner to offer conditions as a requirement for rezoning. The lack of an offer under subsection (1) shall not otherwise affect a landowner's rights under this act, the ordinances of the township, or any other laws of this state.

Due to the recent nature of this Act, no case law exists to understand how the courts will react to this type of development. While traditional zoning has been strongly supported by the Michigan courts, as well as by the U.S. Supreme Court, conditional zoning is too new. Still, this is a land development tool available to the Township and its use should be considered when presented by a land owner. However, great care should be taken to ensure the conditions meet the needs of the Township and that they can be supported by the Master Plan and local ordinances.

Subdivision Regulations

Without the benefit of public infrastructure, specifically sewer and water services, the construction of large subdivisions is not the prevalent form of development within the Township. However, with the advent of private sewer and water systems that can support this type of development, sizeable subdivisions are not outside the realm of possibility. Therefore, it is important for the Township to plan for this type of use. When a developer proposes to subdivide land, he or she is, in effect, planning a portion of the Township. The Future Land Use Map outlines some specific areas within the Township where more dense single-family developments are desired.

Several direct benefits accrue from the regulation of subdivisions by a local unit of government. By requiring the subdivider to install adequate utilities and improved streets, purchasers of the lots are not later burdened with unexpected added expenses. A subdivision without adequate physical

improvements is detrimental not only to itself, but it also reduces the opportunity for reasonable development of adjacent parcels. In addition, long-range economy in government can be realized only when adequate improvements are provided by the subdivider.

As a part of its review of proposed subdivisions, the Planning Commission will need to focus on such features as the arrangement and width of streets, the grading and surfacing of streets; the width and depth of lots; the adequate provision of open space; and the location of easements for utility installations. The Planning Commission's role within the subdivision review process is to ensure the protection and implementation of the goals and policies outlined in the Master Plan.

Farmland and Open Space Preservation

Summerfield Township has, throughout this Plan, demonstrated a commitment to the promotion and conservation of local agricultural resources, and the continuation of farming activities and related agricultural uses. So as to more concretely affirm and instill these practices, the Township should continue to employ, on its own or in joint partnerships, any single, part, or all of the following measures:

- Land trusts A nonprofit organization that, as all or part of its mission, works with the Township to conserve land by undertaking or assisting direct land transactions-primarily the purchase or acceptance of donations of land or conservation easements.
- Purchase of Development Rights (PDR) A program under which a governmental agency buys "development rights," or a conservation easement that permits it to prohibit practices, uses and development of the land in violation of the terms of the development right document. The program does not give the government agency the right to develop the land. It simply permits it to extinguish those rights in return for appropriate compensation. Land owners retain full ownership and control of their land (AFT Farmland Information Library, 1996). Summerfield Township currently participates in the Monroe County Purchase of Development Rights program.
- Conservation easements A conservation easement is a voluntary agreement that allows a landowner to limit the type or amount of development on their property while retaining private ownership of the land. The easement is signed by the landowner, who is the easement donor, and the Conservancy, who is the party receiving the easement. The conservancy accepts the easement with understanding that it must enforce the terms of the easement in perpetuity. After the easement is signed, it is recorded with the County Register of Deeds and applies to all future owners of the land.

- State of Michigan's farmland protection program (specifically Farmland Development Rights Agreements) A temporary restriction on the land between the State and a landowner, voluntarily entered into by a landowner, preserving their land for agriculture in exchange for certain tax benefits and exemptions for various special assessments (commonly known as PA 116).
 - (State) Purchase of Development Rights: A permanent restriction on the land between the State and a landowner voluntarily entered into by a landowner, preserving their land for agriculture in exchange for a cash payment for those rights.
 - Agricultural Preservation Fund: A fund established to assist local units of government in implementing a local purchase of development rights program.
 - Local Open Space Easement: A temporary restriction on the land between the local government and a landowner voluntarily entered into by a landowner, preserving their land as open space in exchange for certain tax benefits and exemptions for various special assessments.
 - Designated Open Space Easement: A temporary
 restriction on specially designated lands between the State
 and a landowner voluntarily entered into by a landowner,
 preserving their land as open space in exchange for
 certain tax benefits and exemptions for various special
 assessments.

ENFORCEMENT

The ultimate effectiveness of the zoning, subdivision, and other regulations depends on the effective administration and enforcement by the community. If administrative procedures are lax, or if enforcement of regulations is handled in an inconsistent sporadic manner, the result will be unsatisfactory at best. The Building Inspector is often responsible for carrying out zoning/development related functions, including building inspections, ordinance administration, and community/developer liaison. Each of these functions requires a substantial investment of time. If sufficient time is not made available to carry out these critical functions, they may only be accomplished in a cursory manner. Therefore, the Township should continue its in-place review and administration procedures so that these essential day-to-day functions will receive the professional attention they require.

PLANNING EDUCATION

Planning Commissioners should be encourage to attend planning and zoning seminars to keep themselves informed of current planning issues and learn how to better carry out their duties and responsibilities as a Planning Commissioner. These seminars are regularly sponsored by the Michigan Association of Planning, Michigan Township Association, and the Michigan State University Extension Service and are valuable resources to the Planning Commissions in the State.

REVISIONS TO THE PLAN

The Plan should be updated periodically. Any extension, addition, revision, or other amendment to a basic Plan shall be adopted under the same procedure as a Plan or a successive part of a Plan under the procedures stated in Michigan Public Act 33 of 2008. However, for an editorial change (i.e., grammatical, typographical), title change, or a change to conform to an adopted plat, the 63-day comment period for neighboring communities and regional bodies shall be reduced to 42-days.

At least every five years after adoption of the Plan, the Planning Commission, under the Public Act, is required to review the Plan and determine whether to commence the procedure to amend the Plan or adopt a new Plan. These reviews are necessary in order to be responsive to changes in growth trends and current community attitudes on growth and development within the Township.

PUBLIC SUPPORT OF THE MASTER PLAN

Citizen participation and understanding of the general planning process and policies of the Plan are critical to the success of the Township's planning program. Summerfield Township should develop a methodology that makes its citizens more aware of the planning process, and the day-to-day decision making which affects implementation of this Master Plan. Lack of citizen understanding and support could have serious implications for the eventual implementation of planning proposals. Failure of the public to understand and back possible bond issues, as well as taxation concerns, special assessments, zoning decisions, and development proposals are some of the results of public misunderstanding and rejection of long-range plans. On-going programs of discussion, education and participation will therefore facilitate the Township's efforts with regard to Plan implementation.

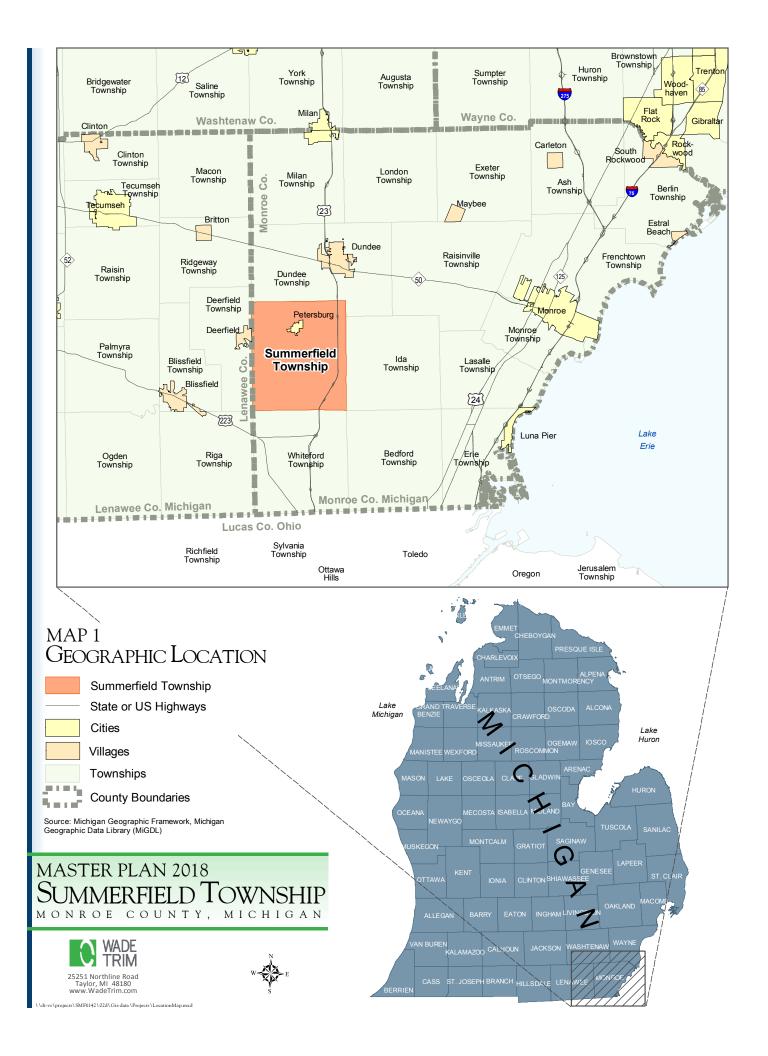
Towards this end, Summerfield Township must again emphasize the necessity of, and reasons for instituting the planning program. Accordingly, Section 51 of the Planning Enabling Act (Act 33 of 2008 as amended) states that the Township Planning Commission "may publish and distribute copies of the master plan or of any report, and employ other means of publicity and education" and "shall consult with and advise public officials and agencies, public utility companies, civic, educational, professional, and other organizations, and citizens concerning the promotion or implementation of the master plan."

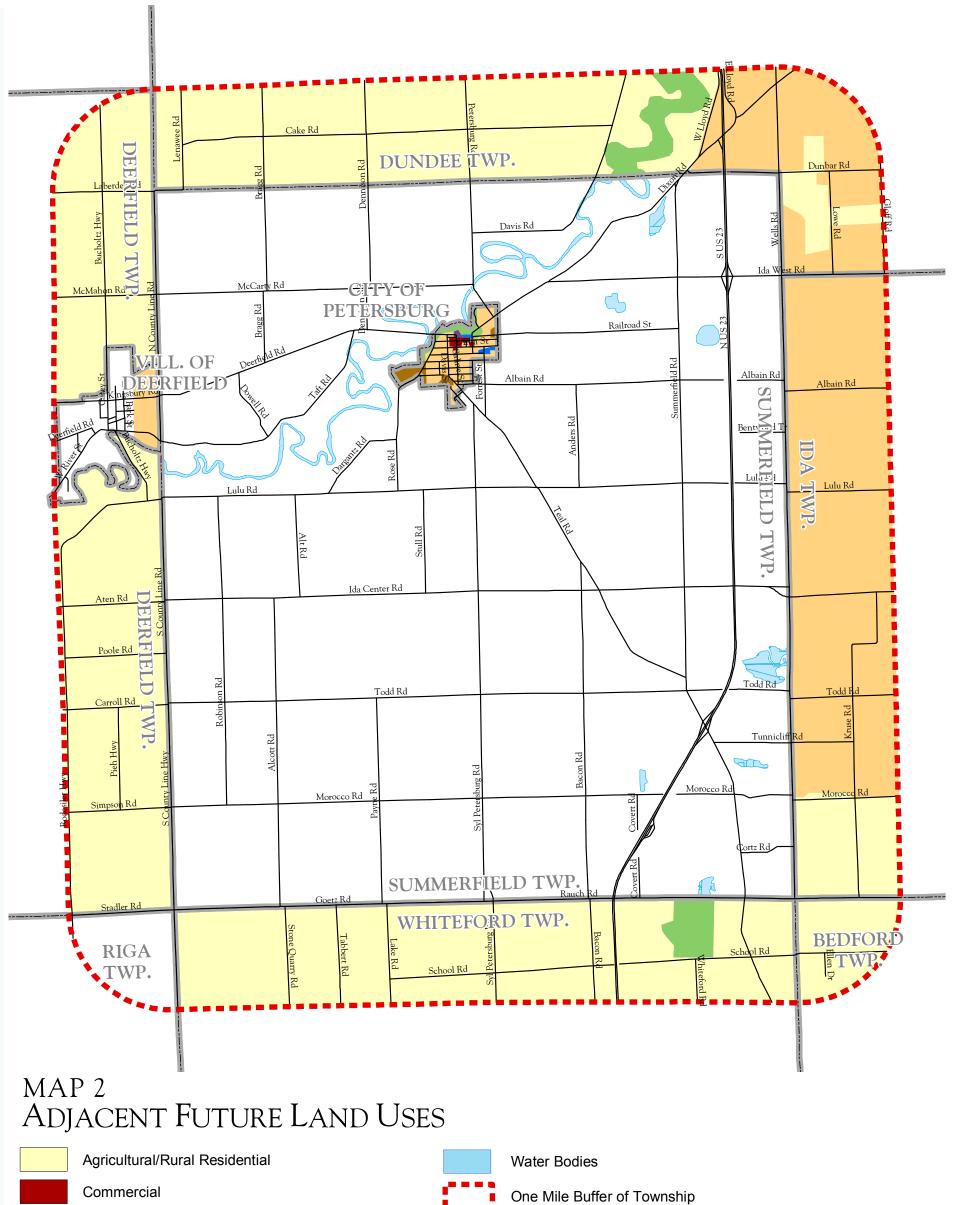
The Township may wish to prepare a Plan summary brochure for public distribution upon its adoption as a strategy to implement this goal. In addition, the development of a handout which contains the Goals and Objectives, as well as the Future Land Use Map and associated text is a beneficial tool for the Township. Residents and applicants tend to be more concerned with these sections of the Plan as they have a more direct bearing on their interests and property within the Township.

Appendix

MAPPING

Map 1:	Geographic Location
Map 2:	Adjacent Future Land Uses
Map 3:	Environmental Resources
Map 4:	Transportation Network
Map 5:	Transportation Analysis
Map 6:	
Map 7:	Existing Land Use
Map 8:	
Map 9:	Future Land Use

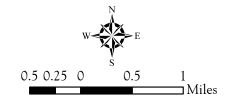




Industrial Roads **Municipal Boundaries** Low Density Residential Medium Density Residential Open Space/Conservation Institutional/Public/Quasi Public

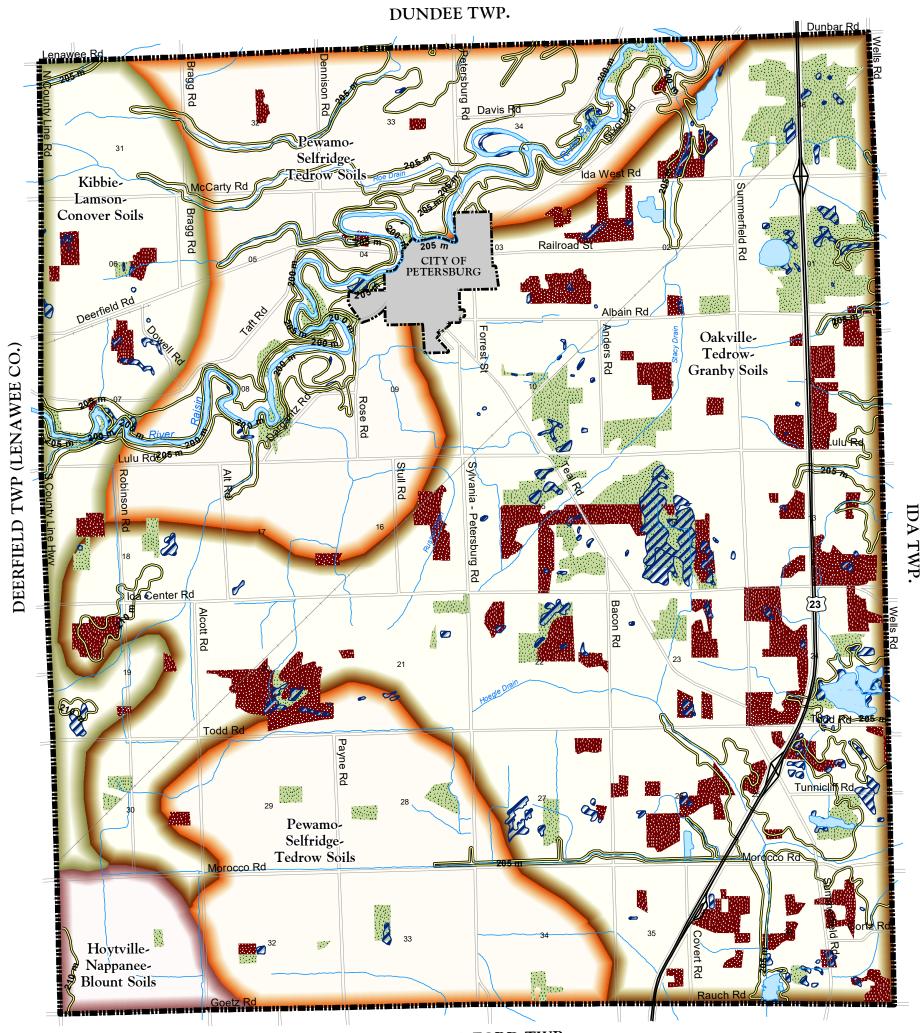
Source: 2001 Generalized Local Plans of Southeast Michigan, Southeast Michigan Council of Governments (SEMCOG).

Note: SEMCOG Generalized Local Plans data does not include Lenawee County.



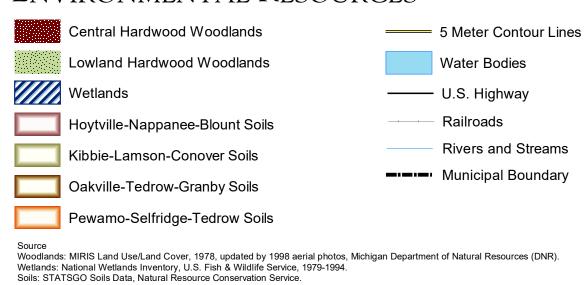


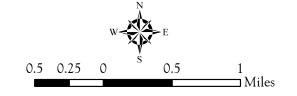




WHITEFORD TWP.

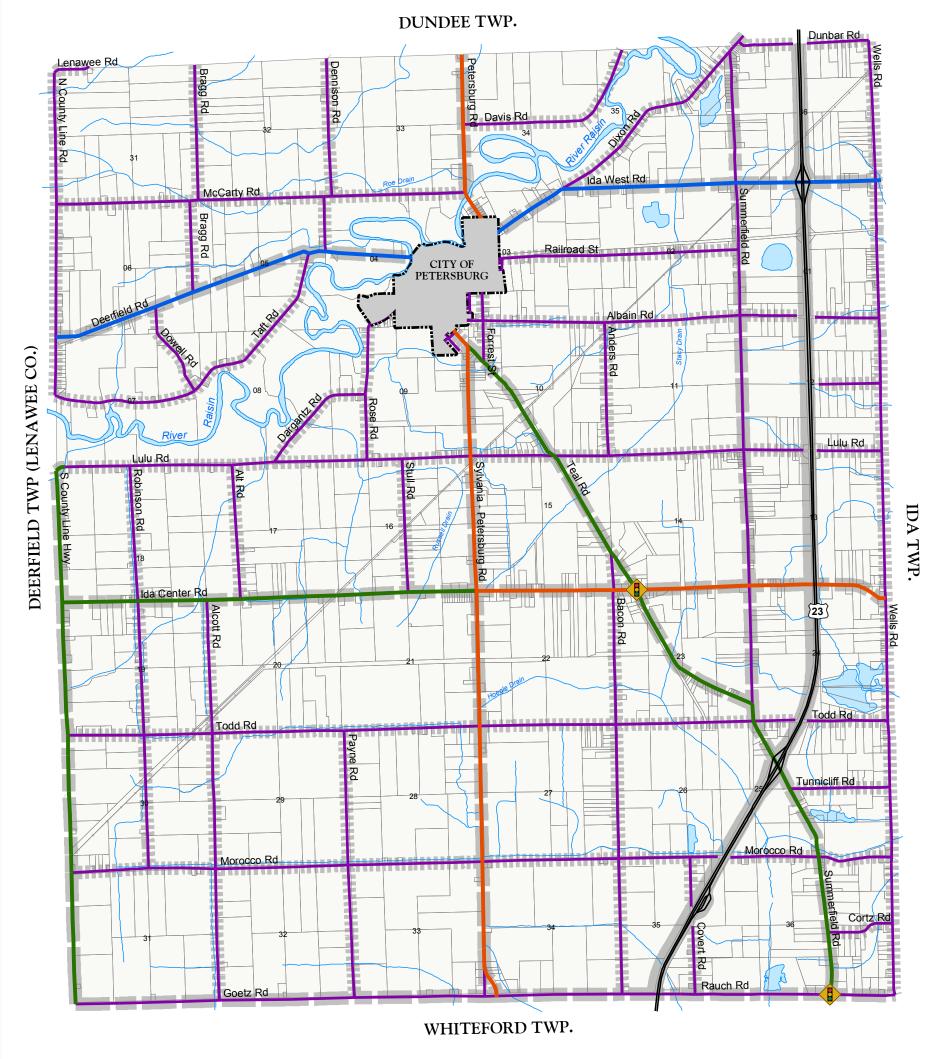
MAP 3 ENVIRONMENTAL RESOURCES



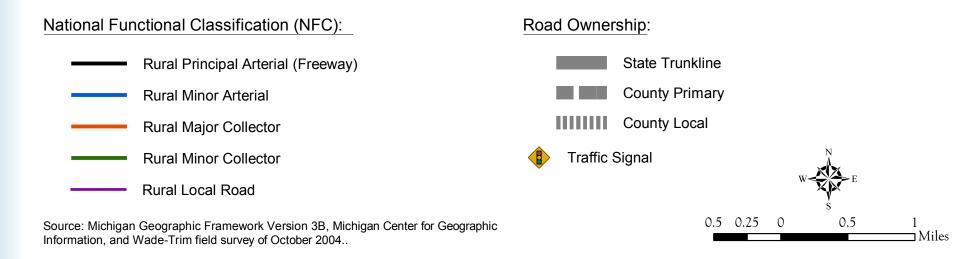


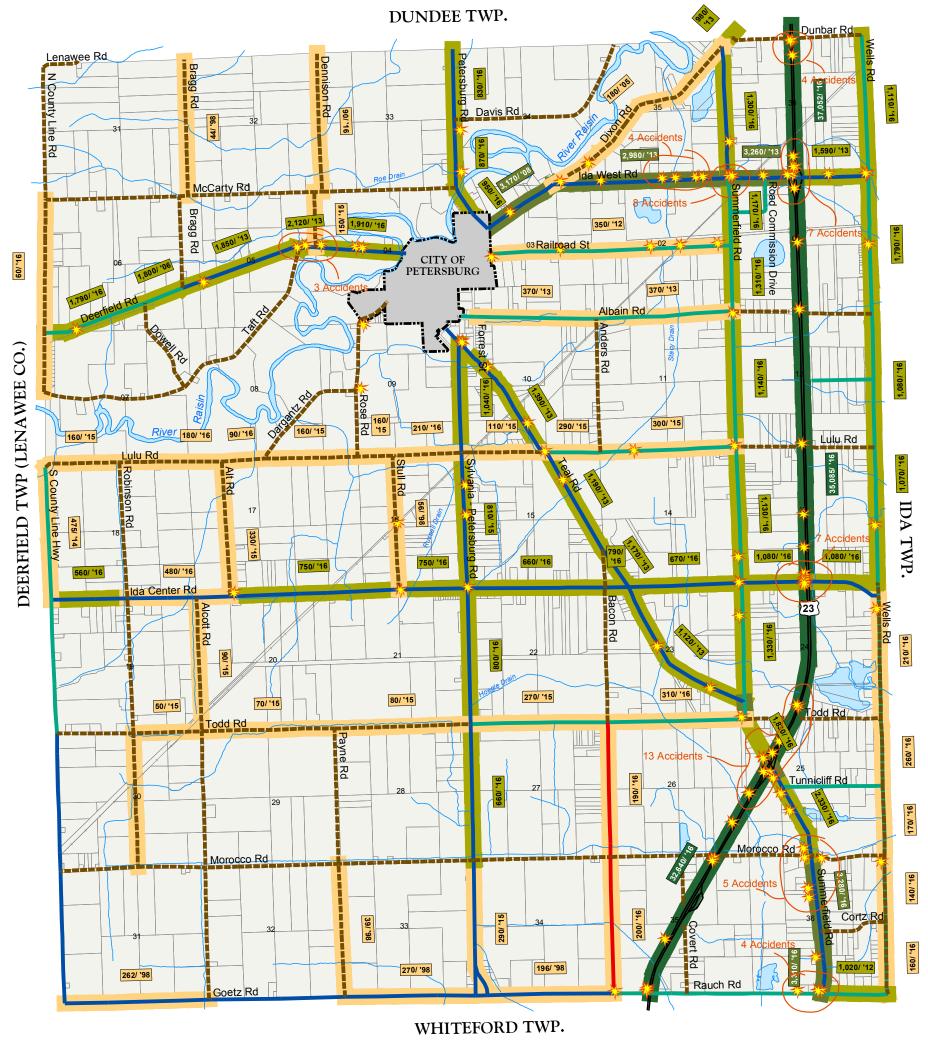
Topography: 5 Meter Digital Line Graph, United States Geological Survey.





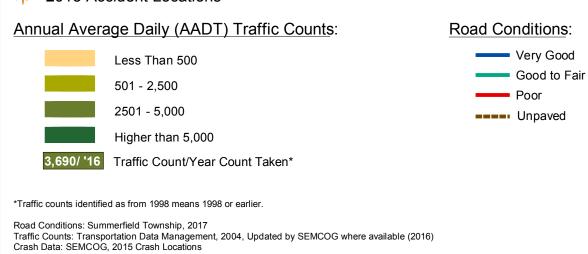
MAP 4 TRANSPORTATION NETWORK

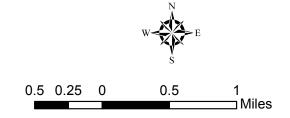




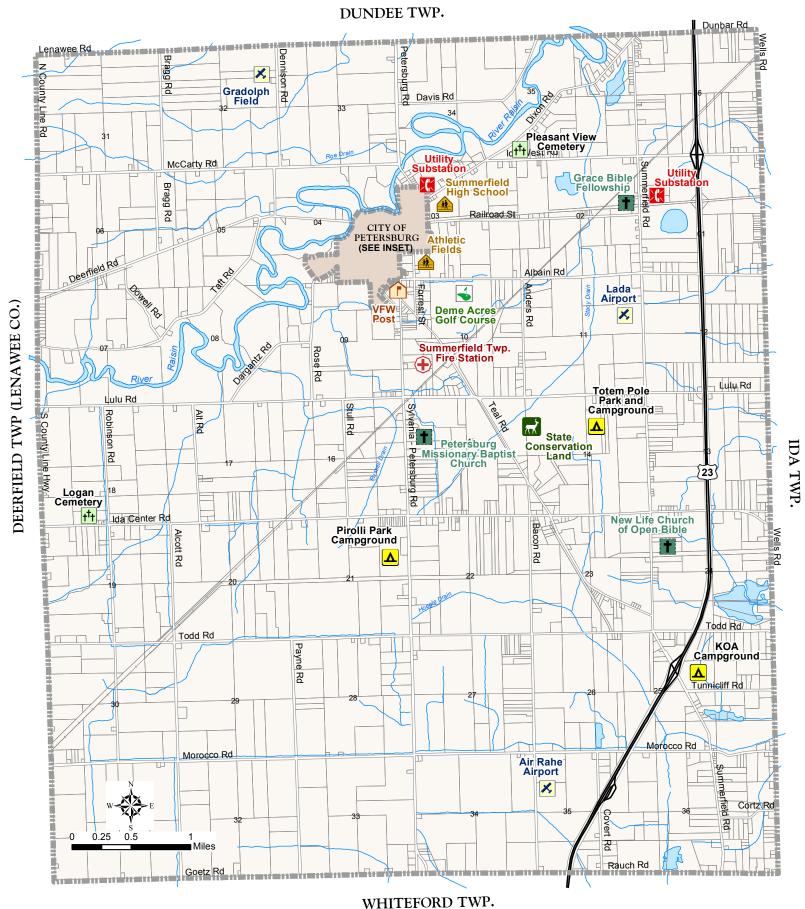
MAP 5 TRANSPORTATION ANALYSIS

* 2015 Accident Locations











+++ Cemeteries

Emergency Services

Δ Campgrounds

Airfields

Libraries

Fraternal Organizations

Churches

School Facilities

Utility Substations

Î **Government Buildings**

State Conservation Land

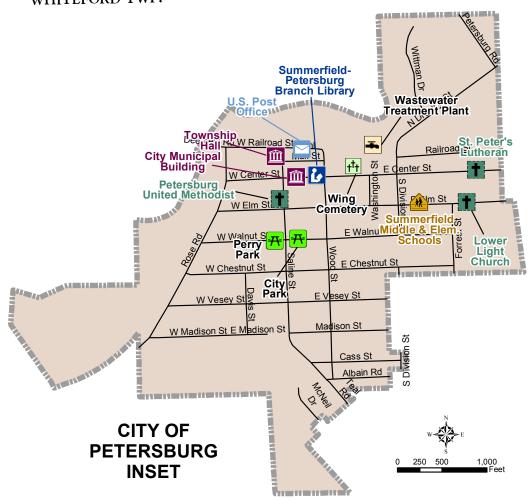
Public Parks

Wastewater Treatment Plant

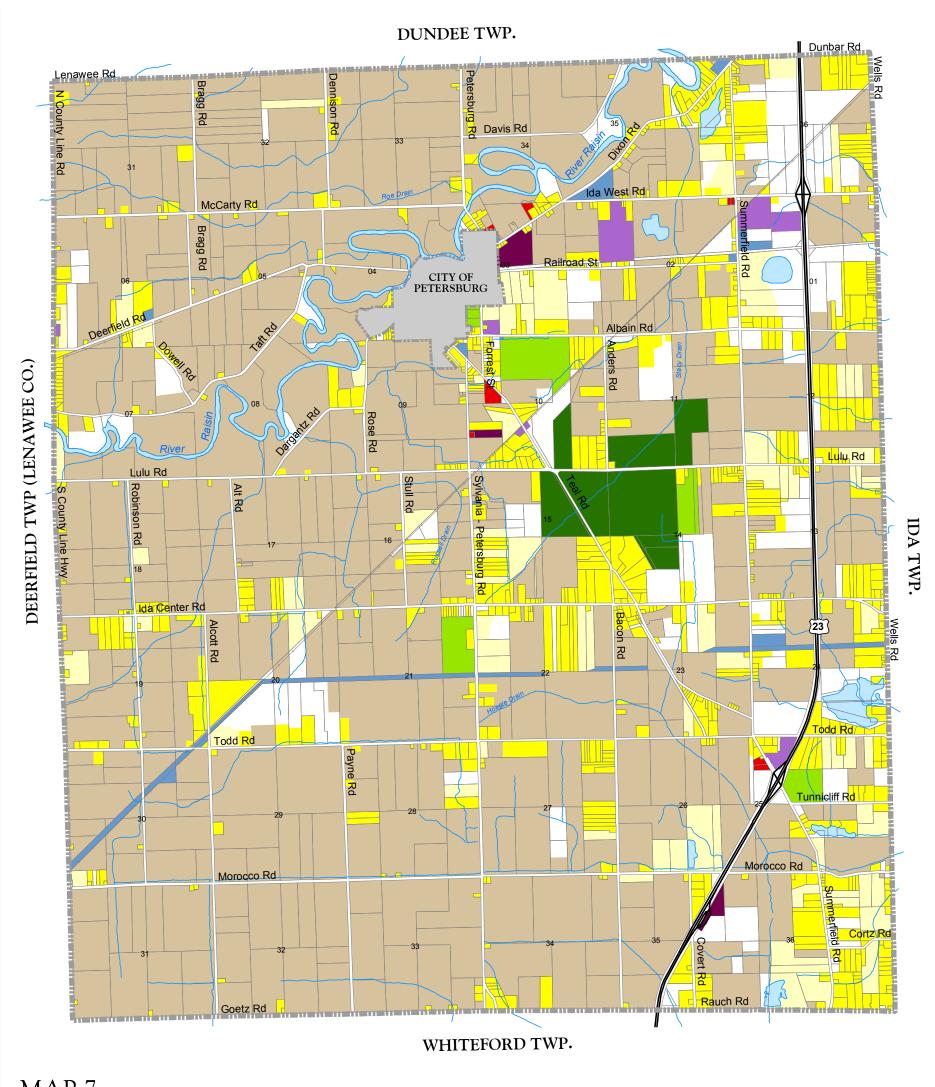
Post Office

Source: Summerfield Township and Wade-Trim field survey

of October, 2017.









Agricultural Public

Agricultural Family (Home on 10+ Acres)

Semi-Public

Vacant

Commercial

Industrial

Recreation

State Land

Public

Semi-Public

Vacant

Vacant

Water Bodies

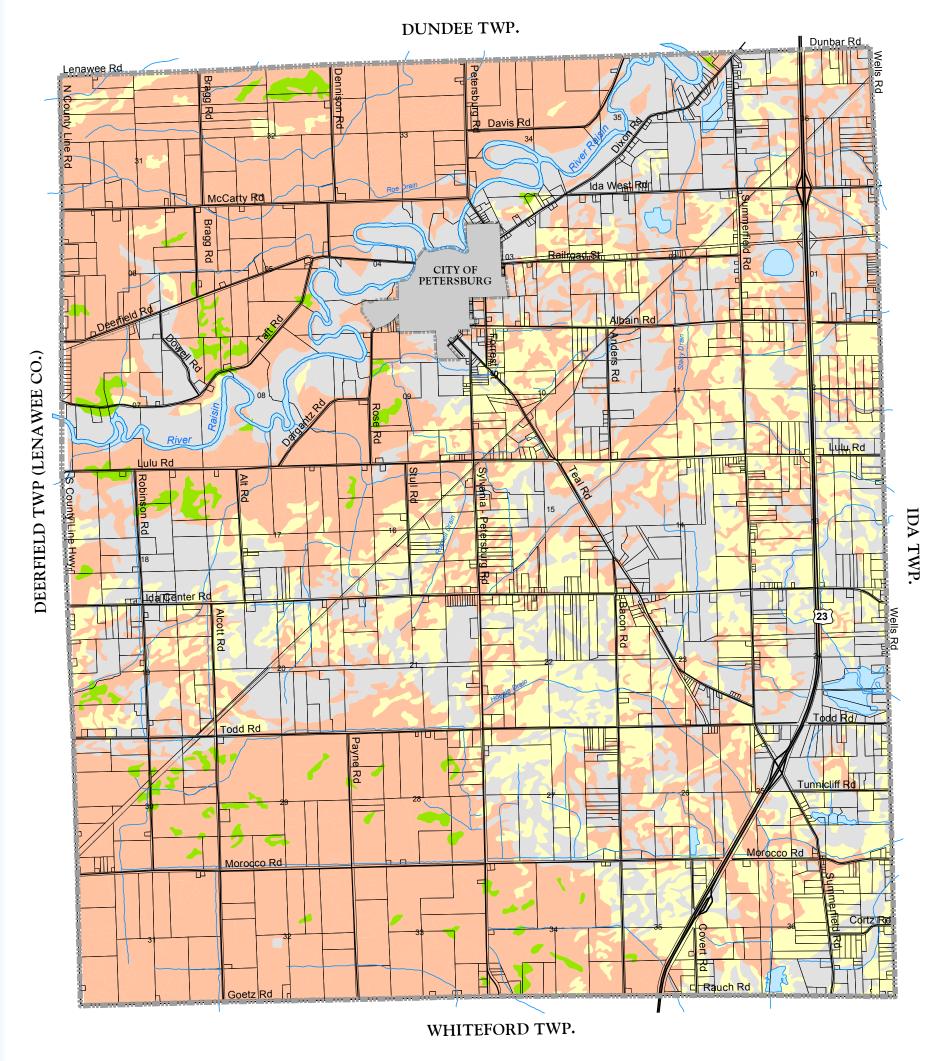
Railroads

Rivers and Streams

Municipal Boundary

0.5 0.25 0 0.5 1 Miles

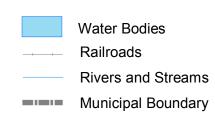
Source: Summerfield Township and Wade-Trim field survey of October, 2017.

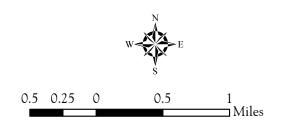




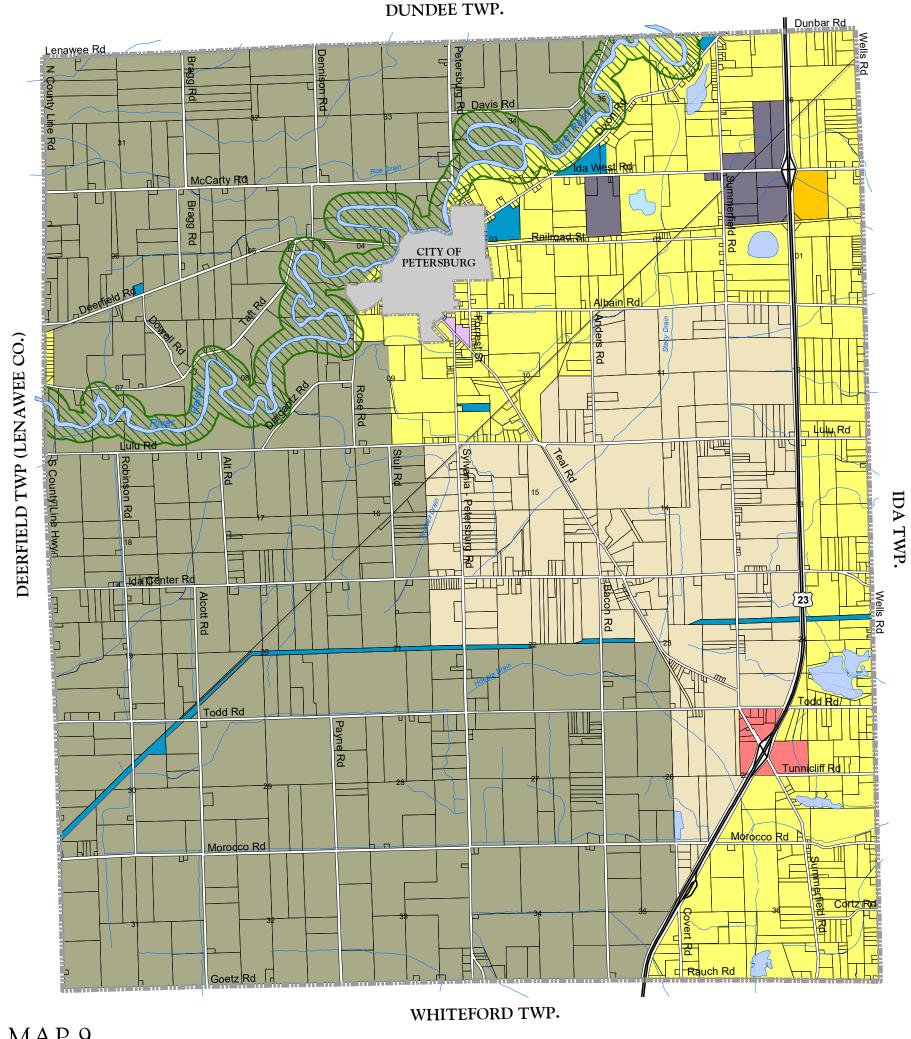
All Areas are Prime Farmland
Farmland of Local Importance
Prime Farmland If Drained
Not Prime Farmland

Source: Soil Survey Geographic database for Monroe County, MI: US Department of Agriculture, Natural Resources Concervation Service, 2004









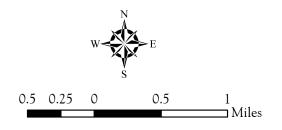
MAP 9 FUTURE LAND USE

Adopted July 9, 2018

Prime Agricultural
Agricultural Family
Single Family
Multi-Family
Local Commercial
General Commercial
Light Industrial
Public/Semi-Public
River Raisin Conservation Overlay

Water Bodies

State Highways
Railroads
Rivers and Streams
Municipal Boundary









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