

A close-up photograph of several green grass blades, heavily covered with numerous small, clear water droplets. The blades are oriented diagonally across the frame, creating a sense of depth and texture. The lighting is soft, highlighting the individual droplets and the fine veins on the grass leaves.

Gun Plain Charter Township

*Master Plan*

Adopted – 2010

1<sup>st</sup> Revision – 2016

2nd Revision – 2023

# **GUN PLAIN CHARTER TOWNSHIP MASTER PLAN**

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# Chapter 1 – INTRODUCTION

## Overview

The Gun Plain Charter Township Master Plan is a policy document aimed at encouraging orderly and efficient land use. It provides the legal basis for local zoning and the logical basis for subdivision design, and public improvement plans for facilitating and guiding the work of the Township Planning Commission and Township Board. It is also a means of communicating to private organizations and individuals how they might relate their building projects to official Township plans. It is the official way of relating Township plans to those of adjacent communities and the region.

As amended, the Michigan Planning Enabling Act, Public Act 33 of 2008, gives townships the authority to prepare and adopt Master Plans. The statute recognizes that the social and economic conditions affecting the Township are continuously changing. The planning process must be continuous to ensure that the Master Plan remains a useful guide for community change and can effectively respond to emerging issues. Annual reviews of the Master Plan are therefore needed, and comprehensive reviews of the Master Plan are undertaken every five years.

The Master Plan of Gun Plain Charter Township was originally adopted in 1991 and later revised in 2000, 2009, and 2016. This update of the Master Plan results from analyses, surveys, and strategic discussions by the Township Planning Commission and Township officials. The plan incorporates citizen input from a community survey and formal public hearings. Various land use, development, and quality of life issues have been explored during the planning process. This update to the Master Plan has been fine-tuned to reflect current trends and issues. The primary manifestations of this evolutionary process are the Plan’s goals and objectives, land use and development policies, and the Future Land Use Map. These Plan elements guide future development in the Township until further revisions are deemed appropriate.

## Public Input

Land use goals and development policies must reflect the community’s desires and be supported by the constituency. The input of Township residents is therefore important to create the Master Plan. The public input used in developing the 2022 edition of the Gun Plain Charter Township Master Plan was generated in two ways. The first approach was to conduct a community-wide survey. The second approach included direct community comments from a formal public hearing.

In the fall of 2021, a community survey was posted online. Paper copies were available at strategic locations in the Township for those without ready access to technology. After reviewing the preliminary results, the Planning Commission decided to send the survey to all property taxpayers within the Township. A total of over 2,300 were mailed. The online survey was also reopened.

As a result of those efforts, 490 surveys were returned and tabulated. The 21% return rate is considered quite good for this type of “non-scientific” research. The survey questions covered several topics, including the location of commercial development, the importance of farmland and rural preservation, utilities, tax base, housing, public services, and recreation. Respondents were also allowed to speak their

minds and write their own comments on any topic relating to planning and development. The survey and survey results are included in the appendix.

### Planning Process

Planning, in simple terms, is a continuous process that seeks to improve a community and create a better environment. As such, the "Master Plan" is a tool by which "planning" can be achieved. It is a tool to be used by both individuals and public officials when making decisions concerning the long-range future of a community.

The planning process consists of four basic steps:

1. **Analysis of the Existing Situation** – An analysis of the community's issues, assets, and potential. These "basic studies" included completing a community opinion survey and evaluating demographics, environmental factors, existing land use, utilities, and the transportation network.
2. **Plan Policies and Land Use arrangement** – A review and refinement of the stated community goals and objectives and verbal and graphic representations of the form and allocation of land uses into the future. The Plan presents how future growth should be directed into the most economical, healthful, aesthetically pleasing, and ecologically sound development pattern.
3. **Plan Implementation** – This document's "action plan" or "implementation plan" element describes what should be done to carry out the plan. The first step in the implementation phase is adopting this plan by the Planning Commission and Township Board. Then, through a series of coordinated actions such as public education, amendments to zoning and subdivision regulations, and systematic utility extensions and street improvements, the Township will implement the provisions of the Plan.
4. **Continued Planning** – For the Plan to have credibility and meaningful effect, it is necessary to follow through with a continuous planning program. This involves periodic review and amendment of the Plan (such as this effort), the zoning ordinance, subdivision regulations, capital improvements program, and other official policies of the Township.

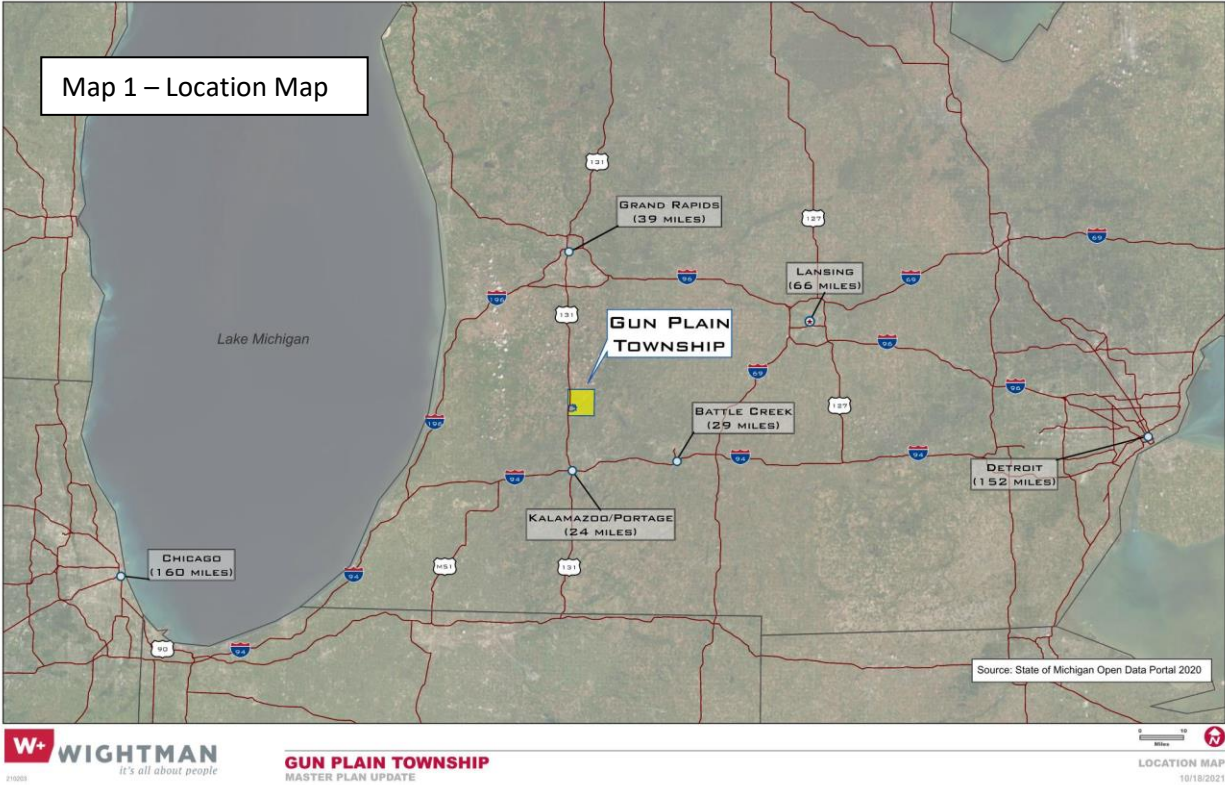


## Chapter 2 – NATURAL FEATURES AND COMMUNITY DESCRIPTION

The physical environment provides both opportunities and constraints for development. While a wetland or heavy soil can hinder construction, the presence of a grove of trees can enhance a development project. The natural environment also contains valuable resources such as potable groundwater supplies and farmland. These and other resources must be both conserved and protected if they are to be enjoyed by future generations. The following discussion highlights significant aspects of the local environment as they pertain to future planning considerations for Gun Plain Charter Township.

### Regional Location

Gun Plain Charter Township is situated in the southwestern portion of Michigan's Lower Peninsula in the southeast corner of Allegan County. The Township is bordered by Kalamazoo County on the south and Barry County on the east. It is fifteen (15) miles north of the Kalamazoo metropolitan area and approximately forty (40) miles south of the Grand Rapids metropolitan area.



The Township's political boundaries encompass approximately thirty-five (35) square miles of land area. The City of Plainwell is geographically surrounded by the township in its southwest corner. Plainwell's sister city Otsego is located less than one mile directly to the west. The Kalamazoo River flows in the southwest corner of the Township, and inland lakes, river tributaries, and wetlands occupy other locations throughout the Township.

Two major transportation corridors traverse the township. US-131 is a federal, limited-access highway. M-89 is a two-lane state highway. US-131 runs north and south through the community's western edge, connecting points from the Indiana border area to the northern Lower Peninsula. M-89 connects the Battle Creek area to the Lake Michigan shore near Holland and travels through the southern portion of the Township in an east/west fashion.

US-131 and M-89 intersect one another on the western outskirts of the City of Plainwell. This intersection serves as the primary gateway to the four communities of Gun Plain Charter Township, Otsego Township, the City of Plainwell, and the City of Otsego.

## Topography

A basic understanding of Gun Plain Charter Township's topography is useful because differences in elevation and slope will continue to significantly influence the development and land use pattern. As with most of southwestern Michigan, Gun Plain Charter Township was primarily shaped by glaciers as they were receding. This created Lake Michigan and most of the major inland water features, hills, ridges, and low areas. The Township displays relatively minor topographic changes within a general range of elevations between approximately 720 feet above sea level (where the Kalamazoo River exits the Township in the southwest) to approximately 980 feet above sea level in the hills located in the southeast near Lake Doster.

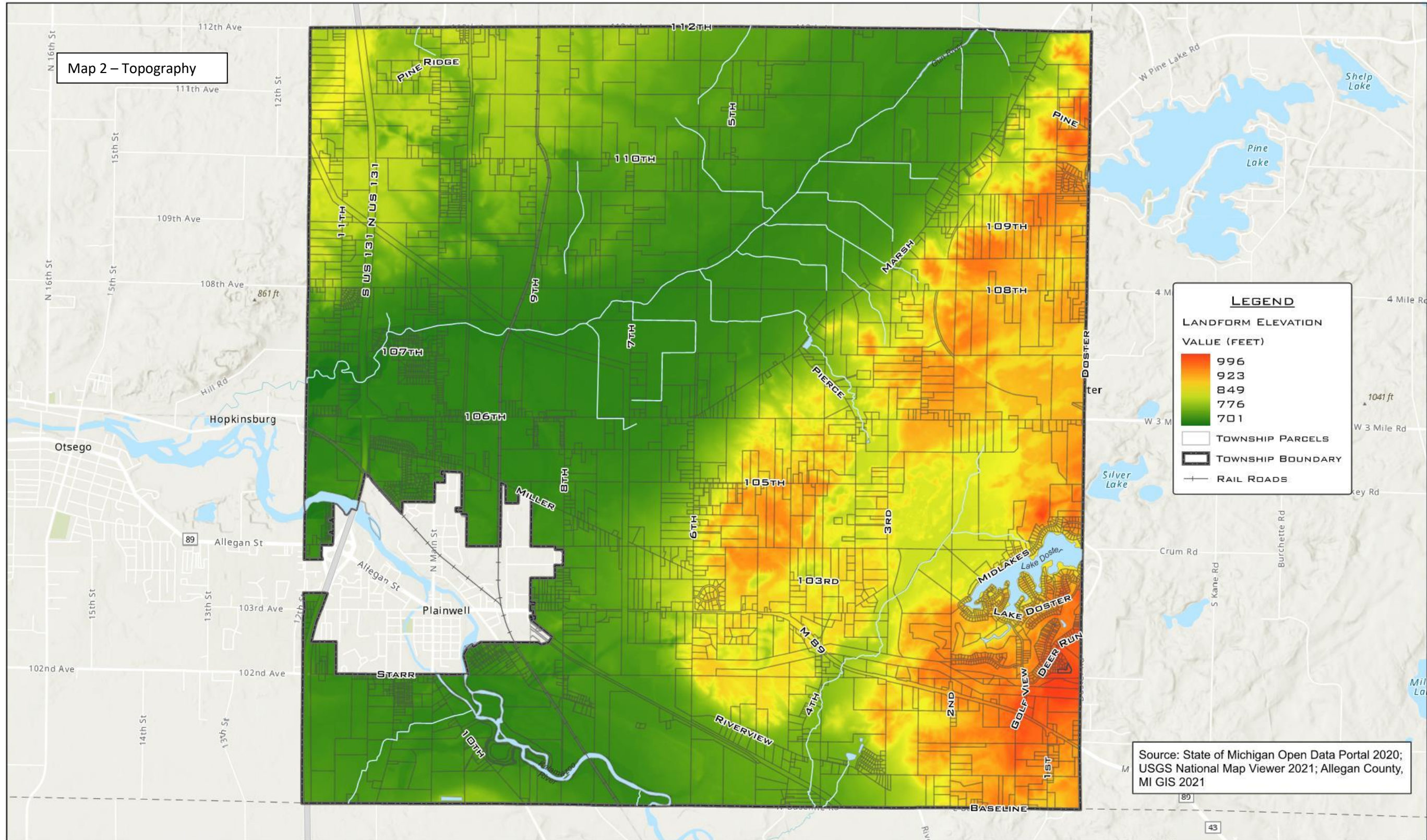
The Township's two most prominent rivers, the Kalamazoo River and the Gun River, meet immediately west of the Township. Ancient flooding of the rivers created a relatively flat plain in much of the southwest quarter of the Township and an arm that extends diagonally to the northeast. This flat plain separates higher, rolling hills in the northwest, southeast, and east. The southeastern half of the Township is topographically the most diverse area and contains numerous ridgelines, woodlands, and wetlands.

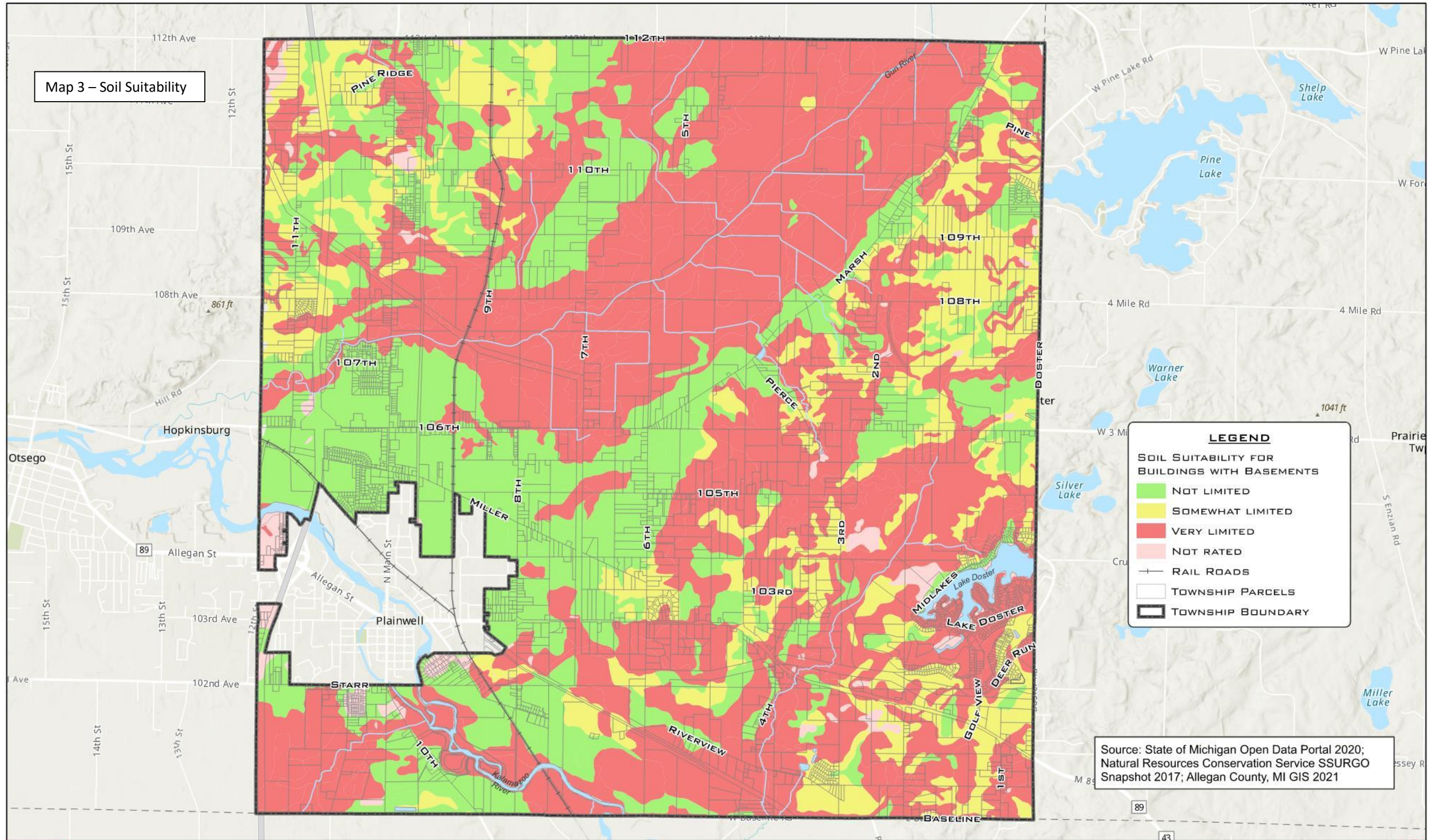
## Climate

The climate is typical of much of southwestern Michigan. It is warm during the summer when temperatures average in the 70s and cold during the winter with temperatures mostly in the 20s. The warmest month of the year is July, with an average temperature of 84°F. January is typically the coldest month, with an average minimum temperature of 17°F. Precipitation averages 37.4 inches on an annual basis. Rainfall is evenly distributed throughout the year. However, September is the wettest month, with an average rainfall of 4.1 inches.

## Soils

Soils play an important part in determining land suitability for specific types of land use. Agricultural uses are determined based on what type of products can be grown on the soil type(s) present on a given parcel of land. More intensive uses of the land can also be based on soil characteristics such as permeability, slope, filtering capacity, bank stability, and wetness. The most prevalent soil type in the Township is the Oshtemo-Chelsea-Ockley soil association, which is a rolling, well-drained sandy loam soil. The slope and filtering capacity limit this land's use for agriculture and some types of residential development.





Other soil types include the Glendora- Adrian-Granby type, which is often low-lying and mucky in nature, and the Caper-Rimer-Pipestone association, which is somewhat wet and has poor permeability. The Oakville soil type is also present in the township, and its characteristics support a wide range of development types, including septic systems. Detailed descriptions of the various soil associations and their characteristics are included in *The Soil Survey of Allegan County, 1987*.

The preceding page (Map 3) map rates soils on their ability to support buildings (development). The map rates surface soils for their suitability to attenuate wastewater leachate from septic systems.

The map on the following page (Map 4) rates soils on their ability to support farming. The maps are based on information contained in the "Soil Survey of Allegan County, Michigan," prepared by the U.S. Department of Agriculture. The maps consider soil percolation rates, wetness, filter qualities, shrink-swell properties, and slope. As can be seen from the maps, most of the Township has soils that are poorly rated in both categories. However, it is apparent and noteworthy that development within the Township has closely followed the pattern of soils where building limitations are slight.

Neither of the maps should be used as substitutes for on-site investigation and detailed engineering studies. However, the maps generally define areas where intensive development can lead to environmental and health hazards. The implications are that while there are relatively large areas that can support development without significant site modification in the building development phase, in the long view, intensive commercial or industrial development activity and dense residential development should therefore be supported by improved public or private wastewater treatment systems.

The "Farmland/Development Suitability Map" and the following descriptions provide further insight into the farming and developmental capabilities of the various soils found in the Township. The analysis shows that the best farmland soils oftentimes constrain non-farm use and development. The primary limitations are poor drainage, wetness, or rapid permeability, all of which contribute to an inability to support conventional on-site septic systems. The same limitations also create problems when constructing building foundations, basements, and roads.

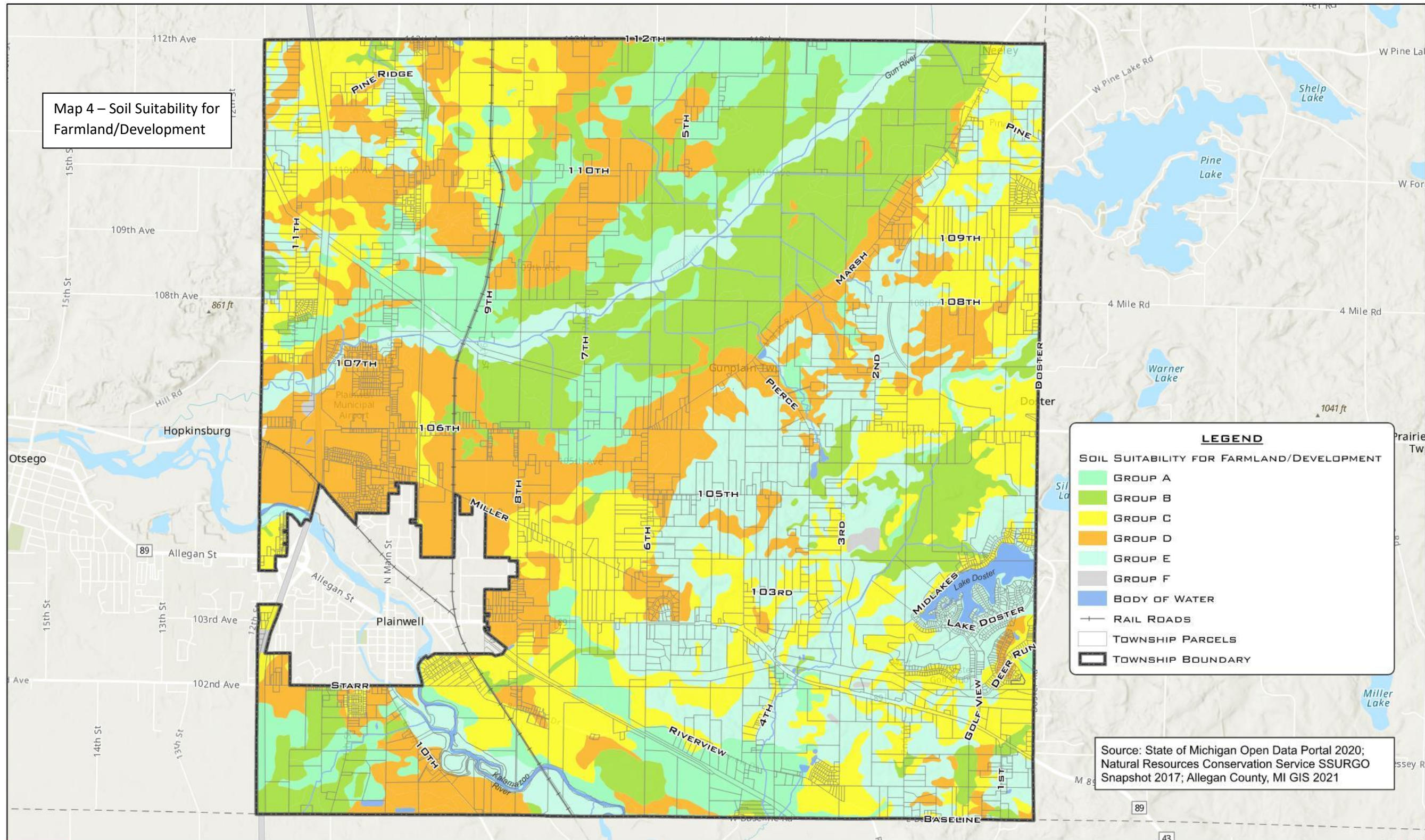
**Soil Group A. High suitability for Farming/Low Suitability for Development**

Prime Farmland or prime if drained soils. These soils pose severe septic and building limitations primarily due to wetness and ponding. From a natural productivity standpoint, these soils should be considered the most desirable for long-term farming purposes.

In Gun Plain Charter Township, relatively few expanses of prime farmland exist, but where they are present, the majority are still part of active farm operations. Most are in the northwest and south. Because of wetness, these soils should be considered less than desirable from a development standpoint with or without utilities and, therefore, should only be called upon to support very low densities of residential development.

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Map 4 – Soil Suitability for Farmland/Development



**LEGEND**

SOIL SUITABILITY FOR FARMLAND/DEVELOPMENT

- GROUP A
- GROUP B
- GROUP C
- GROUP D
- GROUP E
- GROUP F
- BODY OF WATER
- RAIL ROADS
- TOWNSHIP PARCELS
- TOWNSHIP BOUNDARY

Source: State of Michigan Open Data Portal 2020;  
Natural Resources Conservation Service SSURGO  
Snapshot 2017; Allegan County, MI GIS 2021

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**Soil Group B. Good Suitability for Farming/ Low Suitability for Development**

These soils are primarily hydric soils that are well-suited for specialty crops and/or moderately suited for field crops. They exhibit limitations for septic systems and buildings due to high water tables and wetness. Many of the soils in the group should be considered moderately suited for farming practices if increased management techniques are employed.

Along with Group A, Group B soils should be considered **the least supportive of development**, with or without utilities, and therefore should support the lowest densities of residential development. A wide band of these soils' loamy sand and sand complexes comprises the majority of the wide plain now occupied by the Gun River. This plain is Gun Plain Charter Townships' namesake. The grouping also includes several large areas of muck, some of which have been drained and farmed. The largest area of un-drained wetland muck land lies north of Lake Doster.

**Group C. Prime Farmland Soils/Well to Moderately Well Suited for Development Without Utilities.**

These soils are considered “prime farmland” or soils that are moderately suited for field crops or well suited for specialty crops. These soils have slight to moderate septic and building limitations.

They are grouped together to illustrate the soil types that appear to be the most naturally suited for development without utilities. Many of the same soil qualities that allow them to support septic systems and structures also make them good farmland.

Because of steep slopes, erosion protection techniques and other farmland management methods are necessary. Development should be planned, and construction activity controlled due to the adverse environmental consequences that can result in the process of reshaping and altering the landscape in support of development.

**Group D. Prime Farmland/Poorly Suited For Development Without Utilities.**

These are “prime farmland” soils moderately suited for field crops or suited for specialty crop soils with severe septic limitations but slight to moderate building limitations. The primary development limitation for these soils is rapid permeability which makes heavy or intensive septic system utilization a potential threat to groundwater.

Very low development density may be acceptable, but increased development densities should only be allowed if the groundwater source is well protected. Moderate to high-intensity development should only be allowed when utilities (at least sewer) are available. The largest extent of these soils is found adjacent to and north of the City of Plainwell, where much of the development activity in the Township has already occurred and where sanitary sewer service is now

available. Other areas extend northeast, in a band along Marsh Road and in a mottled fashion throughout the northwest quadrant of the Township.

**Group E. Soils Poorly Suited For Farming And Unsited For Development Due To Slope, Wetness, And Flooding.** Most of these soils are in the steeply rolling hills found in the east and southeast (Sections 12, 14, 22, 23, 26, 27, 35, and 36) and to a lesser extent in the northwest in Sections 5, 6, and 7.

In these areas, slopes of more than 12 percent and, in some instances, in excess of 18 percent make farming difficult and intensive development impractical. In addition, the poorly drained loamy sands found in the floodplains (wetlands) along the Gun Plain and Kalamazoo Rivers also exhibit unsited conditions for farming and development because of frequent flooding.

**Group F. Surface Mined Areas.** Within the Township are a very small number of active and/or un-reclaimed sand and gravel mining operations where the surface and subsurface soils have been removed. The largest area is in the southeast quadrant of Section 23 (but none of the areas appear on the map). Each area requires an independent investigation to determine its long-term use and development potential.

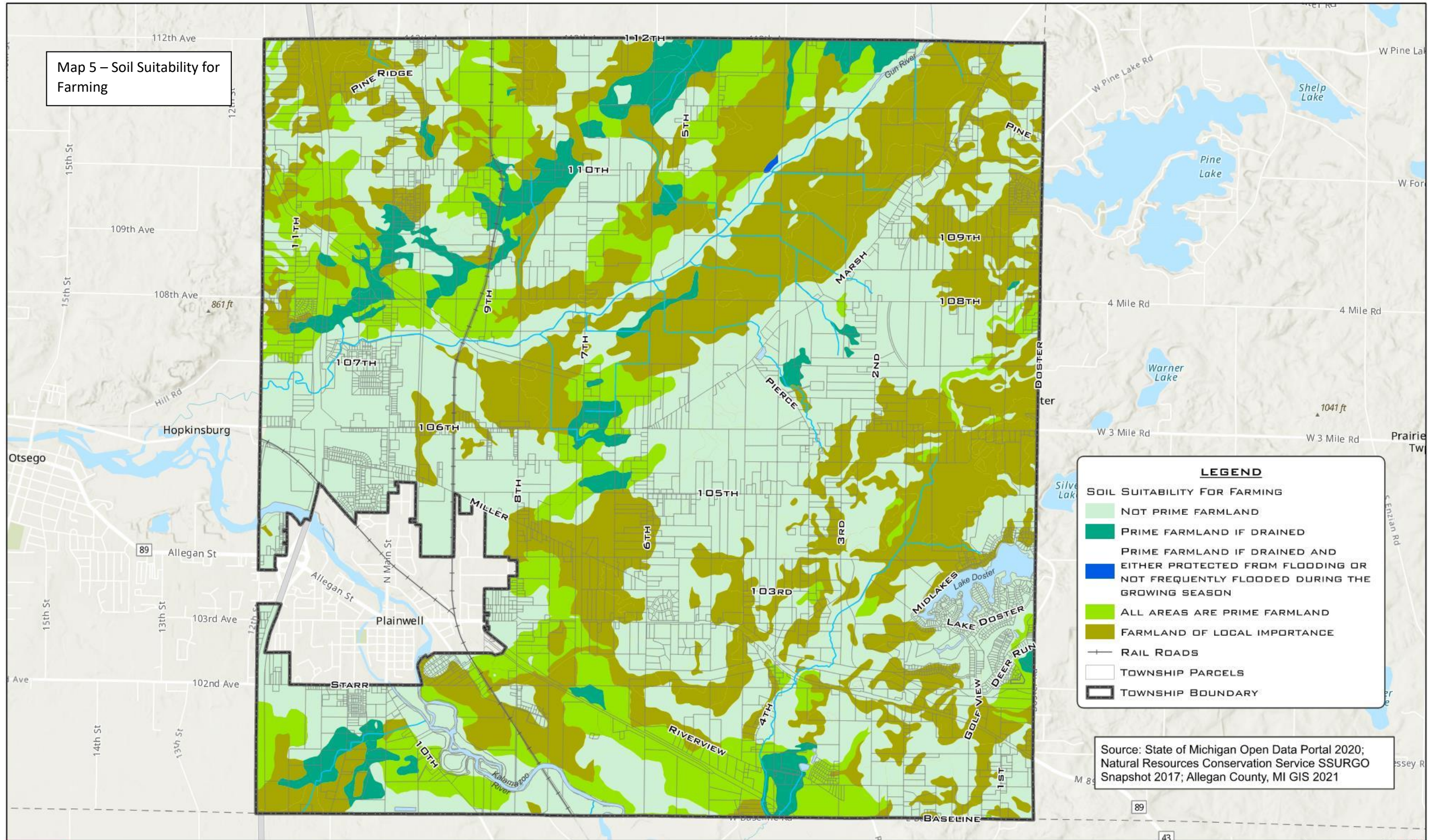
The Prime Farmlands Map on the next page shows the location of prime agricultural lands within the Township as determined by the U.S. Department of Agriculture. Prime Farmland is naturally endowed with the soil quality, growing season, and moisture content necessary to sustain high crop yields under average farming practices.

The Township's prime farmland areas are not broadly extensive, with most occurring in the northwest quadrant. The existence of prime farmland and other "less than prime" soils remaining under active cultivation within the Township is a very important factor in the development of the Master Plan for Gun Plain Charter Township.

## Mining Resources

Glaciers and glacial landforms created much of the township's surface topology, often containing extensive sand and gravel deposits. Used as construction material, these deposits are the basic resources needed by the construction industry and for general economic development. It is necessary and unavoidable that these deposits will be tapped to support the construction of new roads and other development. The "Sand and Gravel Rich Soils Map" classifies soils within 5 to 6 feet of the surface by their potential for including usable sand, gravel, and topsoil deposits. As shown on the map, these sand deposits are found extensively throughout the Township, and sand and gravel are found in the southwest, central and northwest quadrants.

At the present time, there is one active sand/ gravel mine located in the southeast quadrant of Section 23. There are also several former extraction sites, as indicated by the reddish-toned mapped areas.



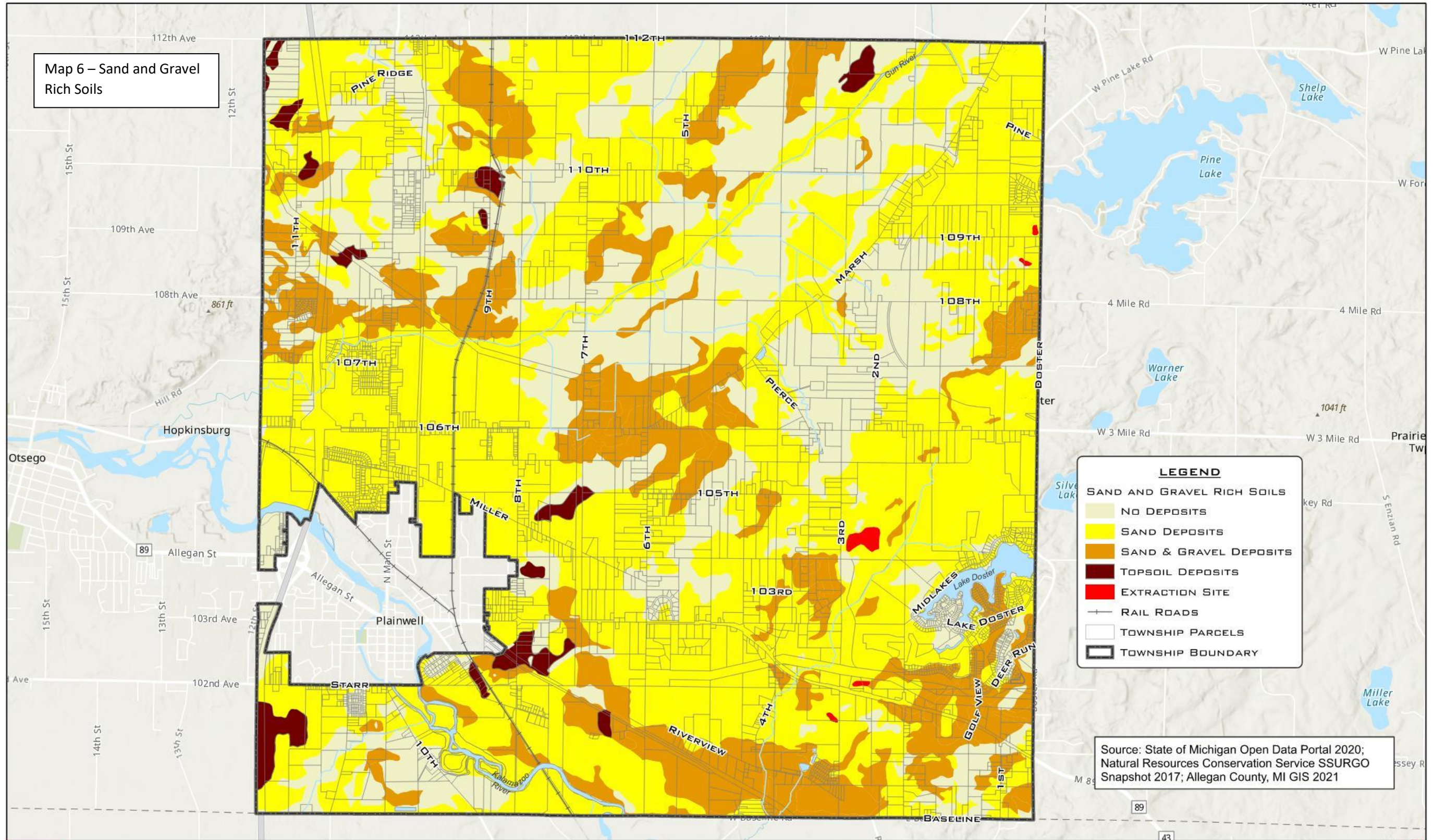
Map 5 – Soil Suitability for Farming

**LEGEND**

**SOIL SUITABILITY FOR FARMING**

- NOT PRIME FARMLAND
- PRIME FARMLAND IF DRAINED
- PRIME FARMLAND IF DRAINED AND EITHER PROTECTED FROM FLOODING OR NOT FREQUENTLY FLOODED DURING THE GROWING SEASON
- ALL AREAS ARE PRIME FARMLAND
- FARMLAND OF LOCAL IMPORTANCE
- RAIL ROADS
- TOWNSHIP PARCELS
- TOWNSHIP BOUNDARY

Source: State of Michigan Open Data Portal 2020; Natural Resources Conservation Service SSURGO Snapshot 2017; Allegan County, MI GIS 2021



## Woodlands/Wetlands/Water Resources

*Wooded areas* are present throughout the township, but the most extensive forested areas are associated with the Kalamazoo River and Gun River. Other wooded areas are in the hilly areas throughout the northwest and eastern portions of Gun Plain Charter Township. No large-scale uplands forests remain in the area. However, taken in combination with wooded wetlands, there remain fairly extensive areas of woodland cover.

*Wetlands* play an important role in maintaining the ecological health and biological diversity of the area where they are located. Depending on their type, wetlands can serve to filter water contaminants prior to entering underground aquifers and should be protected to the maximum extent possible.

Local wetlands range from an acre or smaller to areas of more than 20 acres. The area's largest wetlands are near the Kalamazoo River and Lake Doster, with smaller areas located throughout the Township, most predominately in the eastern half. Due to size or other classification issues, not all local wetlands are classified by the Michigan Department of Environmental Quality as "protected wetlands". However, for the purposes of land use planning, the wetland characteristics of water and/or saturated soils, plant and animal habitat, and soil type are all present, and the "wetland" label is considered appropriate.

Gun Plain Charter Township is fortunate to possess significant *water resources* because they increase the township's appeal for recreational and residential users. The Kalamazoo River, located in the southern portion of the township, traverses approximately six miles of the Township on its way to Lake Michigan. Gun River, in the northern area, is a tributary to the Kalamazoo River and is approximately eight miles long. Silver Creek, another tributary, is about four miles long. Other small creeks and streams are also present.

Lake Doster is located in the southeast quadrant of the Township. It is primarily man-made and is the centerpiece of a large recreational, "planned development," with homes, a golf course, and commercial facilities. The Lake Doster area and the areas contiguous to Plainwell have been the growth centers of the Township.

## Existing Land Use

The pattern of land use within Gun Plain Charter Township is typical of most regional rural townships. Most development consists largely of low-density, single-family housing that is distributed rather thinly throughout the Township. The heaviest concentrations of residential development can be found along the M-89 corridor east of Plainwell, along 8th and 10th Streets (significant north-south corridors), areas to the south and north of the City of Plainwell, and the southern end of the Lake Doster area. The Lake Doster area generally supports large-lot housing with a variety of amenities. The areas near Plainwell are more modest in style and include single-family homes. The most recent platted and site condominium subdivisions are located on both the northern and southern sides of the Lake Doster area, in an area near the intersection of M-89 and 6th Street, and the area west of 10th St. between Miller Rd and the north city limit of Plainwell.

Commercial development is primarily in the form of small to medium-sized retail operations grouped in small clusters at major intersections. In most cases, the businesses are independently owned and serve a local customer base. Larger lot commercial development, serving a more regional market, can be found near the

intersection of 106th Avenue and U.S. 131 and on M-89 west of US-131. A mixed commercial and industrial corridor extends southward from the City along Douglas Ave.

Several more significant commercial operations in the Township's interior are semi-industrial in nature and are associated with the area's agriculturally based economy. These include sand and gravel operations, Christmas tree farms, and farm implement repair facilities. Many of these are found in the M-89 corridor. Industrial development can be found in the southwestern part of the Township near the railroad line on the eastern outskirts of the City of Plainwell. The largest industry is a meat processing facility located south of Plainwell on 11th St. at the extreme southern boundary of the Township.

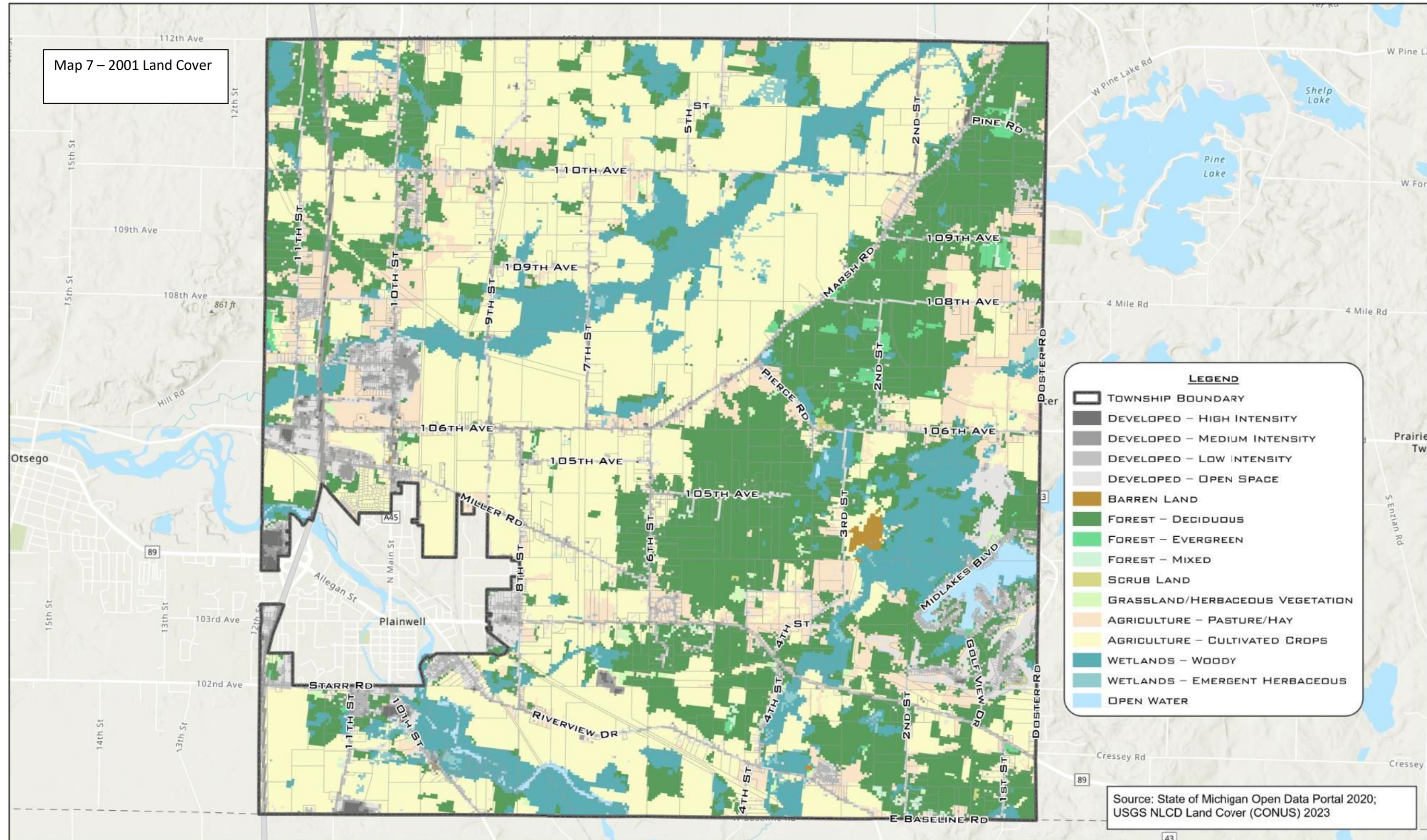
Although scattered farms of various sizes are located throughout Gun Plain Charter Township, most undeveloped and agricultural lands are located in the central portions of the Township and follow the diagonal corridor of the Gun River. The land is low-lying, and soil and drainage characteristics generally dictate that agricultural or open space uses will continue to predominate.

The two following maps illustrate the land use and cover for the Township in the years 2001, and 2019. The third map reflects changes that occurred during that period. While several instances of infill have occurred, no major development activity has taken place to alter development patterns.

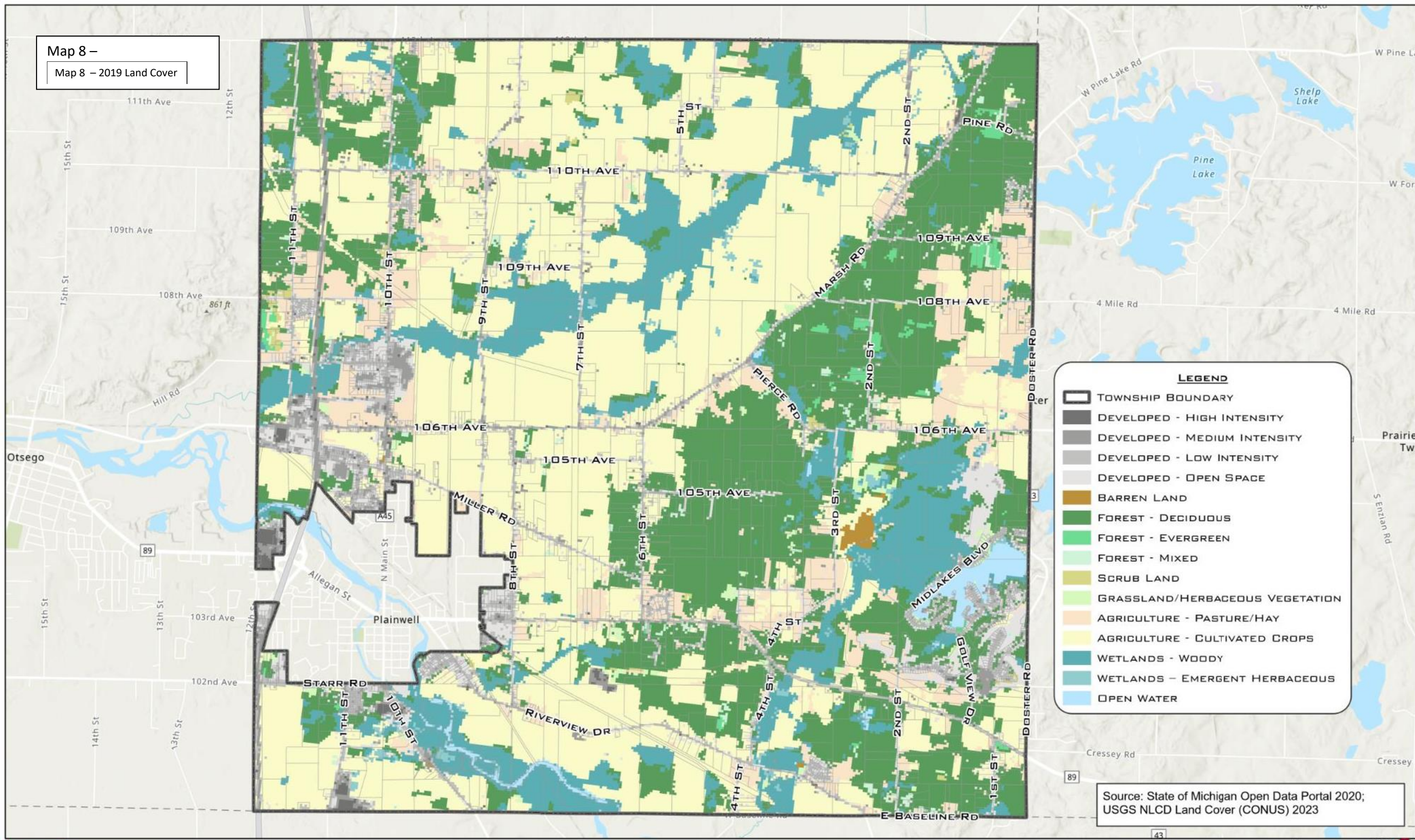
### Development Tolerance

Through a process of elimination, the parts of the Township that are best suited to new development based on existing environmental and land use constraints can be identified. The intent is not to identify areas that should be developed but rather those that possess a high (i.e., least intrusive) development tolerance as determined by soil type, elevation environmental sensitivity, and existing infrastructure. Conversely, the preservation of prime farmland and sensitive environmental resources, such as wetlands, are identified as community-wide goals. For the purpose of this analysis, land areas that exhibit those characteristics have, in large part, been excluded from consideration as “areas favorable for new development.”

Due to factors such as views and waterfront access, the areas that experience the greatest development pressure often exhibit poor soil and slope conditions. The eastern half of the Township is largely a natural drainage basin containing several wetlands and tributaries of the Kalamazoo River. The area also has numerous steep slopes and ridgelines. In general, the eastern half of the Township contains many more environmental constraints to development than the western half.

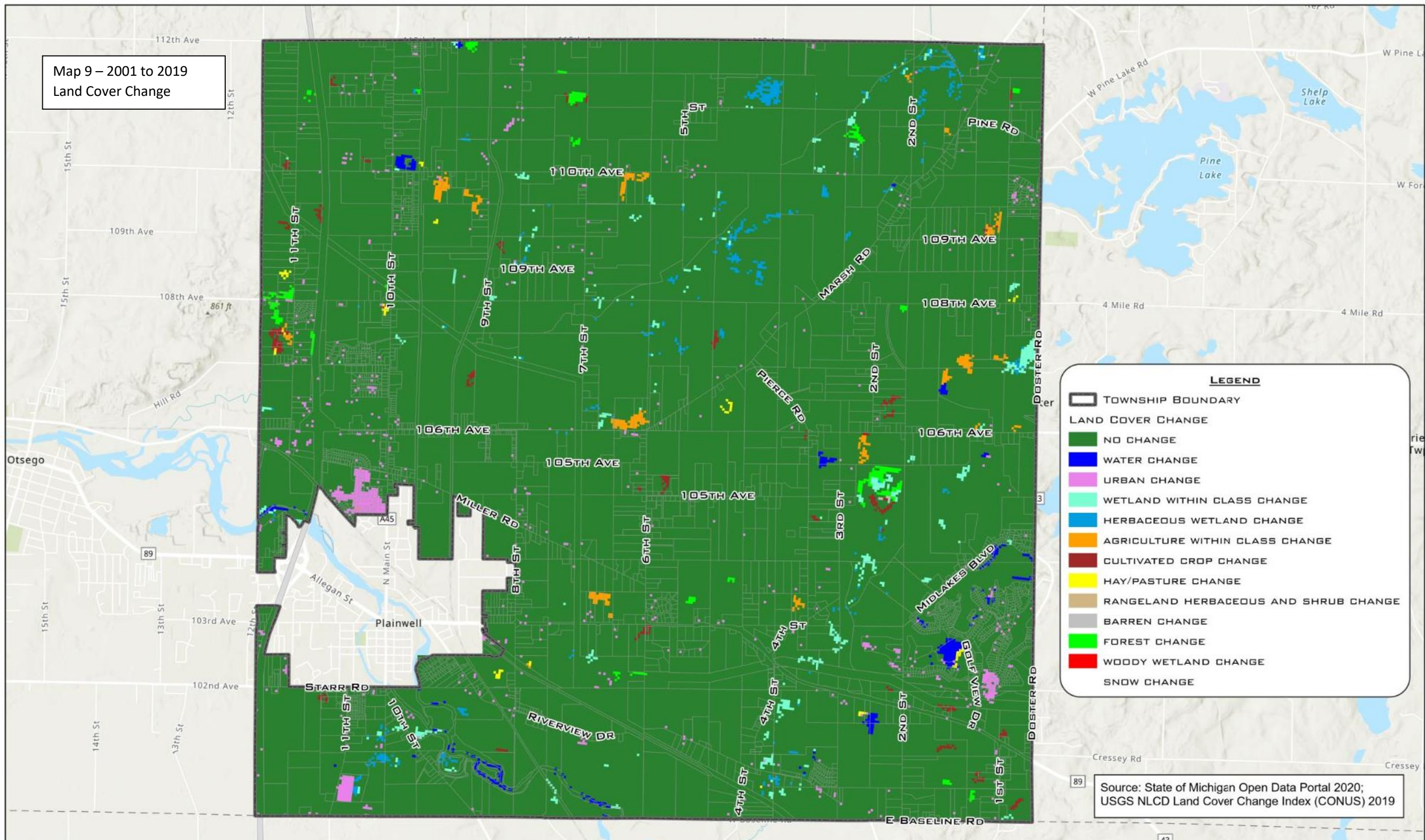


Map 8 –  
Map 8 – 2019 Land Cover





Map 9 – 2001 to 2019  
Land Cover Change



**LEGEND**

- TOWNSHIP BOUNDARY
- LAND COVER CHANGE**
- NO CHANGE
- WATER CHANGE
- URBAN CHANGE
- WETLAND WITHIN CLASS CHANGE
- HERBACEOUS WETLAND CHANGE
- AGRICULTURE WITHIN CLASS CHANGE
- CULTIVATED CROP CHANGE
- HAY/PASTURE CHANGE
- RANGELAND HERBACEOUS AND SHRUB CHANGE
- BARREN CHANGE
- FOREST CHANGE
- WOODY WETLAND CHANGE
- SNOW CHANGE

Source: State of Michigan Open Data Portal 2020;  
USGS NLCD Land Cover Change Index (CONUS) 2019

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## Chapter 3 – COMMUNITY FACILITIES

As the number of people living in Gun Plain Charter Township increases, the need for local community services and infrastructure improvements has also increased. Below are brief descriptions of existing community facilities and infrastructure in the Township.

### Township Hall

The Gun Plain Charter Township Hall is a focal point within the community. The Township hall is located at 381 8th Street. The hall contains an office area, a meeting space with a capacity for 100 people, and kitchen facilities. The Township Fire Department is also housed on this site. It is anticipated that the existing structures will provide adequate capacity for administrative and fire department needs in the foreseeable future.

### Fire Service

The Township has a volunteer Fire Department comprised of 25 volunteers. It provides fire protection for all of Gun Plain Charter Township. The department has mutual aid agreements with several surrounding fire departments to provide services outside its immediate service area. This agreement also provides assistance to Township residents by adjacent Township emergency personnel.

### Police Service

General police protection for Gun Plain is provided by the Allegan County Sheriff's Department and under a contract arrangement, the Township is patrolled by an officer specifically assigned to the Township. The Sheriff's Department is headquartered in the City of Allegan, 12 miles to the northwest. A Michigan State Police post is also located in the City of Wayland, approximately 13 miles to the north.

Allegan County has developed a "911" emergency notification system for county residents. All portions of Gun Plain Charter Township are connected to the system.

### Cemetery

Township cemeteries include Woodside Cemetery along Miller Road, Hillside Cemetery on M-89, and Ives Cemetery on 8th Street south of 105th.

### Historic Sites

Historic resources in Gun Plain Charter Township are scattered and do not exist in great enough densities to form effective clusters. Apart from the former Doster settlement located near the intersection of 106th Ave. and Doster Road, most of the Township's early settlements such as New Aberdeen, Argenta, and Neeley are "ghost hamlets", containing few, if any, remaining historic structures. The Township does, however, contain a small, but varied collection of Victorian period houses including "Queen Anne", and "Italianate" designs. Scarcer styles include "Federal," a "Midwest" style, and a "Greek Revival" design located on 106th Street near the airport. Other historic (and prehistoric) resources and notable local landmarks include the Red Brick Inn on 10th Street and the Township cemeteries. The intact remains of a

mastodon were found in the Township in the mid-1970s. However, the archaeological site was fully excavated and has not been marked.

Except for the original Doster settlement, the lack of significant groupings of historic buildings makes the creation of individual historic districts and the tax credits they can provide untenable. The “Heritage Trail” that now runs through Allegan County enters Gun Plain Charter Township on M-89 west of Plainwell and heads north along 10th St. to Martin. It presents opportunities for Gun Plain to reveal its history to a wider audience. The fact that many, if not most, of the resources, previously discussed are on or in proximity to 10th St. and 106th Street makes this portion of the route very appealing and presents opportunities for local tourism and complementary spin-off effects such as a heightened interest in historic preservation, and appreciation of community character.

### Airport

The Plainwell Municipal Airport is located along U.S. 131 north of 106th Avenue. The airport is owned and operated by the City of Plainwell and is licensed as a “basic utility” airport serving light, piston-driven aircraft. The airport’s primary east-west runway is 2,650 feet long and hard-surfaced. Due to obstructions near the runway ends (US-131 and 10th Street), this runway has displaced thresholds. The obstructions reduce the effective runway length for landings; to 2,121 feet in the east direction and 1,875 feet in the west direction. The north-south crosswind runway is a grass strip. Its total length is 2,550 feet, but obstructions also limit its effective length to 2,282 feet for south-end approaches and 1,875 feet for north-end approaches.

The State’s Zoning Enabling Act requires that local government units take the existence of airports within or near their jurisdictional boundaries into consideration in the planning and zoning process. The intent of the legislation is to help protect airports from encroachment by surrounding development and to ensure long-range airport viability.

### Utilities

Public utilities are an important consideration in the community planning process and can be an important tool for managing growth. The availability of public utilities, particularly in rural and semi-rural townships, is most often not universal. Therefore, greater densities are typically planned in the areas where public utilities are present.

### Water Supply System

Gun Plain’s water supply and distribution system is composed of two primary components, each serving limited areas of the township.

1. The City of Plainwell Gun Plain Charter Township is a wholesale customer of the City of Plainwell. Under the water service agreement with the City, Gun Plain Charter Township may tap into City water mains and extend distribution lines into areas of the Township that are adjacent to the City. The agreement allows service to up to 750 residential units consisting of single-family homes, duplex units, or apartment units. Except for the Township government buildings, non-residential customers are not permitted by the agreement. Approximately 128 water customers are presently

served by water main extensions in the city's peripheral areas. They are Gore's Addition south of Plainwell between 11<sup>th</sup> Street and Douglas Avenue; the James Street area southeast of Plainwell between the Kalamazoo River and Riverview Drive; and the Pine Meadows development on the northern outskirts of Plainwell. Within the same development areas, there are approximately 80 vacant lots or unconnected units, bringing the total number of committed units to 200. An uncommitted capacity of approximately 500 residential units remains "nominally available" under the current wholesale agreement with the City.

Lake Doster Water Supply System this water system originated in 1987 with the installation of two wells, a network of distribution lines, and a 200,000-gallon elevated storage tank in the Lake Doster area. It contains a service area of approximately 1.1 square miles and serves over 392 customers.

### *Sanitary Sewer System*

Wastewater from the areas in Gun Plain Charter Township that are served by the public sewer system is treated at the City of Plainwell's wastewater treatment plant, located on Fairlane Street in Plainwell. The Township owns and maintains the wastewater collection system, and treatment is provided under a sewer agreement with the City of Plainwell. Only two relatively small areas of the Township are presently able to connect to the wastewater collection system. They include the Lake Doster area, areas north of the City of Plainwell along 10th Street north to the airport, and four small peripheral areas on the east, south, and west of Plainwell. The following map illustrates the sanitary sewer service districts.

Sewer customers in the township generate approximately 260,000 gallons of effluent per day. Under the contract with the City, the flow could be allowed to double. If significant additional service areas and customers are to be added, expansions to the collection system in the form of new lift stations and transmission lines will be required.

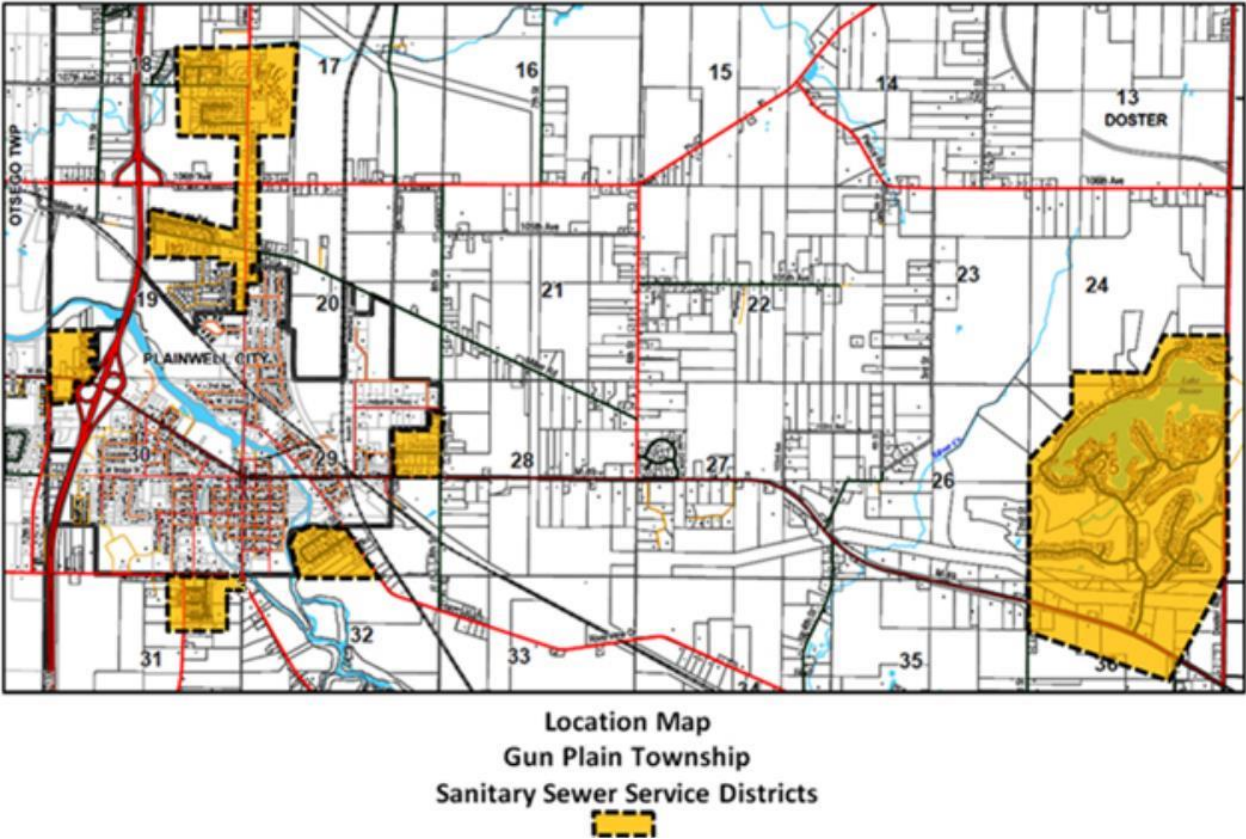
### *Road System*

The road network in Gun Plain Charter Township is constructed in a modified grid pattern and contains the usual hierarchy of State highways and County primary and local roads. Even though the Kalamazoo River and Gun River do represent obstacles to completing the street grid, the mostly completed grid system still provides a range of alternative routes throughout the Township and effectively diffuses traffic.

The area's major east-west thoroughfare is M-89. This state highway corridor supports a tremendous amount of commercial strip development, especially west of Gun Plain, between Plainwell and Allegan. U.S.-131 is the major north-south artery. It passes through the western portion of Gun Plain Charter Township. It provides easy access to the larger metropolitan areas of Kalamazoo and Grand Rapids.

Most local roads are improved, but several unpaved segments remain.

Map 10.  
 Sanitary Service Districts



The following table provides estimated 24-hour traffic counts at selected locations for five previous time frames. The counts were taken by the Allegan County Road Commission and MDOT. The highest recorded traffic counts have been on M-89, both west and east of Plainwell. On the local roads, the highest volumes are found on 102nd Ave (Starr Road), and on Marsh Road, north of 106th Ave. While the counts on 102nd Ave and 106th Ave, and Douglas Avenue have dropped recently, the counts on Marsh Road, Pierce, and 11th St have increased significantly. Overall traffic counts throughout the township continue to be well below the standard capacity of most two-lane paved roads, which is 8,000 vehicles per 24 hours. The need for lane and shoulder improvements at and near key intersections should be anticipated.

Table 1.  
 Two-Way 24-Hour Traffic Counts

Street Location	2002	2006	2014	2019	2021
102nd Ave. (Starr Rd) East of US 131	4,910	5,423	4,835	6,261	6,695
106th Avenue West of 9th Street	3,723	5,316	3,480	5,242	N/A
Marsh Road North of 106th Avenue	3,723	3,060	4,687	4,747	5,469
Douglas North of Baseline	4,692	5,041	3,356	5,766	N/A
Riverview Drive East of 4 <sup>th</sup> Street	2,532	2,024	2,080	N/A	N/A

Street Location	2002	2006	2014	2019	2021
6th Street North of Miller Road	2,969	2,351	2,250	2460	3484
11th Street North of Kalamazoo Co. Line	3,656	3,490	4,162	4,182	4,593
10th Street South of 110th Avenue	2,867	2,531	2,511	N/A	N/A
M-89 East of Plainwell		N/A	7,215	9,035	9,011
M-89 West of Plainwell	N/A	N/A	27,447	29,178	27,746

The primary "bottleneck" in the street system is where M-89 passes through downtown Plainwell at 10th Street. A long-discussed improvement for U.S. 131 that could help to alleviate congestion in this problem area would be the construction of a northbound exit ramp and a southbound entrance ramp at 106th Avenue, one mile to the north of the existing interchange. The ramp could also relieve traffic elsewhere along M-89 by offering drivers an alternative route to the central portions of the Township. The downside of this improvement would be an increase in traffic volumes on some local roads. The new ramps have been discussed for many years, but MDOT has made no plans or commitments for their construction to date.

For planning purposes, it is useful to recognize that various roads have different functions. Understanding these functions can lead to decisions about the desired use of each road segment, necessary road right-of-way widths, and the appropriateness of adjoining land use. Below is a brief description of four important road types to Gun Plain Charter Township.

*Limited Access Highway*

These facilities are devoted entirely to the movement of large volumes of traffic at high speeds over relatively long distances. A limited access highway is defined as a roadway especially designed for through traffic over which abutting property owners have no easement or right of light, air, or access. These roads provide little or no direct access to individual properties adjoining these roads. U.S.-131 is an example. Because of US-131, Gun Plain Charter Township is within a reasonable commute to jobs within West Michigan, making it an attractive place to live.

*Major Arterial Roads (State Highways and County Primaries)*

The major function of these roads is to move a good volume of traffic within and through an area. A secondary function is to provide access to adjacent land areas. In Gun Plain Charter Township, the major arterials include M-89 and the county primary roads; 106th Avenue, Marsh Road, Pierce Road, North 2nd Street, Riverview Drive, Douglass Avenue, and 10th Street. There are approximately 29 miles of major arterials in the Township.

*Minor Arterial/Collector Streets (County Locals)*

Minor arterials and collector streets provide routes for internal traffic movement within a community and connect local land areas with the major arterial road system. Unlike the major arterials, providing direct access to adjacent properties is an important function of minor arterial or collector roads. In terms of road mileage, the largest percentage in Gun Plain falls under this classification. Over time, as development in the Township increases, traffic volumes along minor arterial roads will also increase. Some minor arterial roads may eventually become major roads due to traffic increases, so a degree of access control is

important. Access control should, as a minimum, include measures that maintain generous distances between driveways. There are a total of approximately 49.5 miles of minor arterial/collector streets in the Township. Of these, 16.7 miles are unpaved.

#### *Feeder Streets (County locals)*

The sole function of feeder streets (also a type of county local road) is to provide access to adjoining properties. In many cases, thru-traffic is discouraged. Examples in Gun Plain Charter Township are found in its many subdivisions. Feeder Streets become more numerous as more subdivision development takes place. Private roads are also classified as feeder streets. There are approximately 8 1/2 miles of public feeder streets and a similar number and length of private feeder streets in the Township. Most new feeder streets are, constructed and maintained as private streets. That trend correlates directly to the rise in popularity of the site condominium form of residential subdivision development. Property owner associations are mandatory in those developments, and private street ownership and maintenance are facilitated.

#### *All-weather Routes and Seasonal Roads*

In Gun Plain Charter Township, several of the primary roads, and US-131 and M-89, are classified as “all-weather routes.” This means they are built to withstand the freeze/thaw conditions of early spring, and seasonal weight restrictions are not imposed during the winter-spring transition.

The Allegan County Road Commission has also established a “seasonal” county road system. Seasonal roads are under the Road Commission’s jurisdiction but are closed to public travel and will not be maintained during the months of November through April. When placing a road on the seasonal system, the volume of motor vehicle traffic that uses the road, land use and the number of principal residences along the road, grade variations, concealed obstructions, road alignment, and other topographical features that affect snow removal equipment is considered. Within Gun Plain Charter Township, only a 0.12-mile-long segment of 110th Ave., west of Doster Rd., and a 0.7-mile-long segment of 2nd St., north of M-89, are classified as seasonal roads.

The map on the following page illustrates the Township’s street network and further summarizes the number of miles represented by the various street types. Additional street inventory information is included in the appendix.

#### *Internet and Broadband*

Infrastructure such as water, sewer, electricity, and roads are governed by recognized and well-accepted technical and legal standards, and the networks and systems that municipalities and private utility companies use in providing these utilities are well understood. This is not the case with the infrastructure associated with high-speed data transmission via the internet. The speed at which the internet “platforms” operate and, ultimately, the usefulness of these private delivery systems, are highly variable.



Map 11.  
Road Classifications Map



**Gun Plain Township  
Road Classifications Map**

Township Street Miles by Type

	Miles
Limited Access Highway (all weather)	5.1
State highway (all weather)	5.2
<b>Total County Roads</b>	<b>73.09</b>
<b>Total County Primary</b>	<b>23.61</b>
County Primary (all weather)	7.8
<b>County Local Roads Total</b>	<b>49.48</b>
County Local Roads–Paved	32.78
County Local Roads–Unpaved	16.71
<b>Collectors Total</b>	<b>41.44</b>
Collectors, Paved	27.2
Collectors Unpaved	14.24
<b>Feeder Streets Total</b>	<b>8.44</b>
Feeder Streets, paved	5.97
Feeder Streets, unpaved	1.66
Seasonal	.81

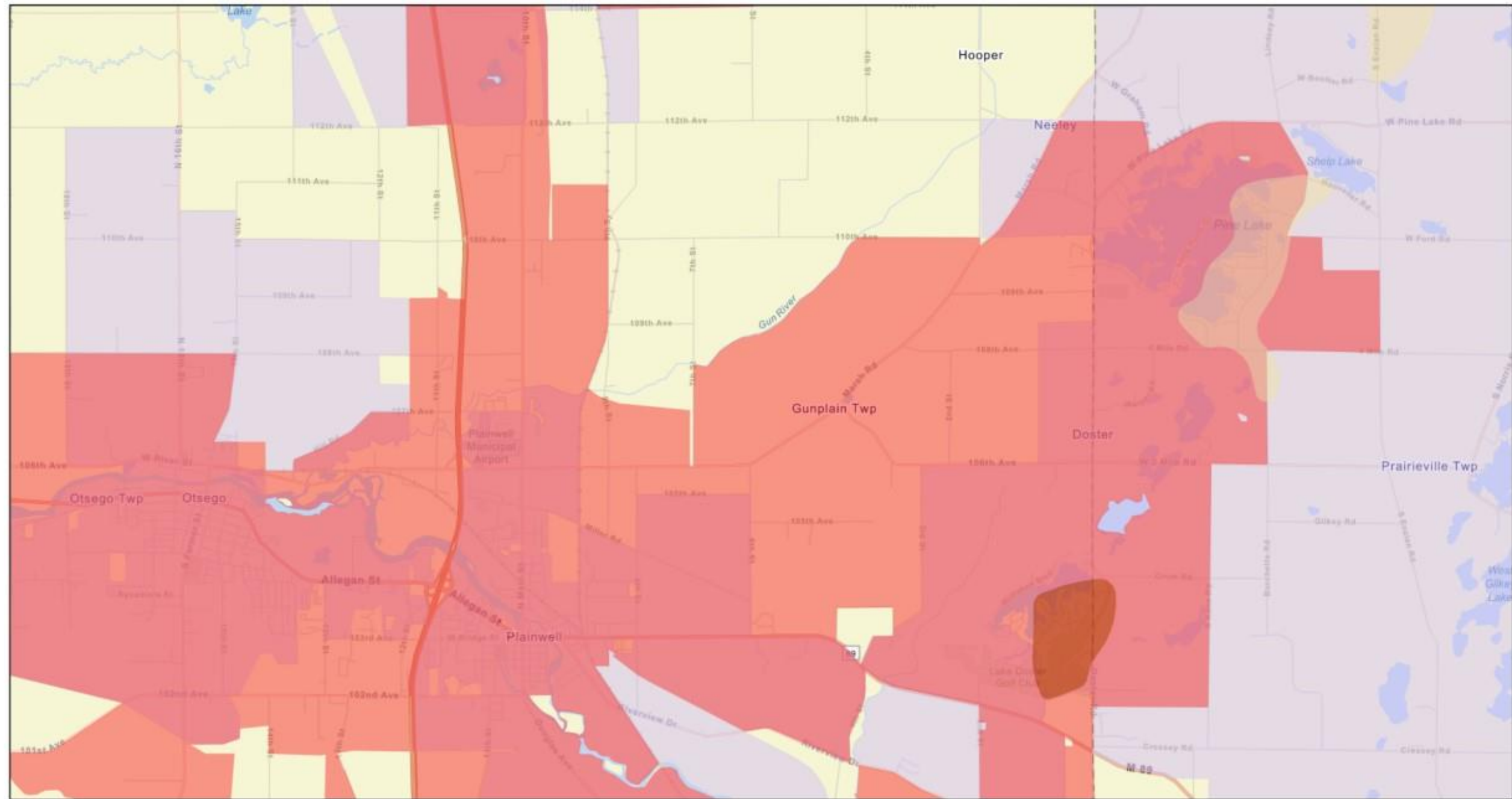
Source: Allegan County Road Commission and Google maps, 2015

“Broadband” refers to high-speed data transmission where a single cable can simultaneously carry a large amount of data. The most common types of internet broadband connections are cable modems (which use the same connection as cable TV) and DSL modems (which use an existing phone line). With a goal of improving internet access for all Americans and closing the digital gap between rural and urban areas, the Federal Communications Commission (FCC) recently updated its "broadband benchmark speeds" (essentially, its definition of “broadband”), to 100 megabyte per second (Mbps) for downloads and 3 Mbps for uploads. While cable and fiber optic services and some newer mobile data providers can easily meet the new 25 Mbps standard for downloads and 3 Mbps standard for uploads, others cannot. DSL is delivered over telephone lines and generally never reaches the new download threshold under the new definition. As a result, roughly 20% of American households are not considered to have broadband access.

To facilitate technology planning locally, “Connect Michigan,” a non-profit organization, in partnership with the Michigan Public Service Commission, conducted a county-wide survey of existing and potential broadband subscribers. Of the 227 individuals from Gun Plain Charter Township that responded, 28 (12%) stated that broadband service was unavailable at their address, and, eight (3%) indicated that it was too expensive. Of the 199 respondents that use broadband, 70 (35%) have their primary broadband internet service via cable subscription, 27 (14%) through mobile or wireless air card; 13 (7%) through satellite-based internet, 8 (4%) by way of a fixed/tower-based wireless connection; and 2 (1%) with a dedicated T-1 line. In addition, those that directly indicated that they do not have broadband access, thirty-nine subscribers (20% of the respondents) obtain internet service via DSL lines. Because of its relatively slow speed, it can be argued that DSL customers do not, in effect, have broadband internet service either.

As a result of the Coronavirus pandemic, significant gaps in coverage were revealed. Allegan County has designated a large majority of its ARPA funds to provide high-speed Internet to the residents of the County that are currently underserved. The County contracted with 123.net to provide high-speed Internet to 12,000 homes in the county, estimated to be completed within 18 months (2024). Completion will provide high-speed Internet capability to all households in Gun Plain Charter Township.

Map 11.  
Road Classifications Map



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<b>Fiber</b>	<b>Cable</b>	<b>DSL</b>
At Least 1000M	At Least 100M/10M	At Least 10M/1M
At Least 10M/1M		

1:72,224

0 0.5 1 2 mi

0 1 2 4 km

Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Connected Nation, USDA

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## Chapter 4 – POPULATION AND ECONOMIC CHARACTERISTICS

### Overview

The 2020 U.S. Census and subsequent sample surveys conducted by the U.S. Census Bureau through the American Community Survey (ACS) program provide the most recent population profile of Gun Plain Charter Township. They are the basis for the information presented below. It is the most accurate data available for understanding the composition of the community, making comparisons, and identifying significant trends.

However, the 2020 Census and ACS data release have been impacted by the COVID-19 pandemic. Significant delays have occurred. The Demographic and Housing Characteristics File (DHC) and Detailed DHC data products were released in May 2023.

Where possible, data from the 2020 Census and ACS has been incorporated into this Master Plan Update. The 2020 Census is an actual count of the persons living in the country every ten (10) years. The Decennial Census asks fewer questions and is primarily based on age, sex, race, Hispanic origin, and owner/renter status. While it represents an actual count the data is primarily used to determine congressional representation and the boundaries of other state and local offices.

In 2005, after a decade-long testing, the American Community Survey program began. ACS is in response to questions about the “long form” of the decennial census. Since the census only occurs once every 10 years the data becomes “stale” a few years after the release. The long form was also questionable in terms of response rate due to the length. The concept of ACS is that it addresses both concerns. It is a statistical sampling of the population based on distribution as determined by the census. It incorporates the questions not asked on the 2020 Census such as education, employment, internet access, and transportation. It provides current information to communities every year.

In this chapter of the Gun Plain Charter Township Master Plan, demographic data is included from both the 2020 Census and the recently released 2022 ACS. This provides the most current information available. Whenever possible, the Township data is paired with Allegan County and state of Michigan information to provide a regional and state comparison.

The goal is to define the Gun Plain Charter Township population. Associated with the demographic definition are relevant impacts that represent factors to be considered in the development of the Township.

### Population

The following table shows that growth in the Township has progressed between 1970 and 2020. From 1970 to 2000, the growth rate was dramatic. The economic downturn that Michigan experienced in during what has been termed the “Great Recession” (2007 to 2009) slowed development, and associated population growth locally in Gun Plain Township.

For comparison purposes the following table includes data relative to Allegan County and the State of Michigan. Gun Plain Charter Township clearly follows the population changes experienced by Allegan *Table 2.*

*Table 2.*  
**Total Population Growth**

Decade	Gun Plain Charter Township			Allegan County			State of Michigan		
	Population	Increase Decrease	Percent (%)	Population	Increase Decrease	Percent (%)	Population	Increase Decrease	Percent (%)
1970	3,721	--		66,575			8,881,826		
1980	4,295	574	15.40%	81,555	14,980	22.50%	9,255,553	373,727	4.21%
1990	4,754	459	10.70%	90,509	8,954	11.00%	9,310,462	54,909	0.59%
2000	5,637	883	18.60%	105,665	15,156	16.70%	9,952,450	641,988	6.90%
2010	5,895	258	4.60%	111,408	5,743	5.40%	9,877,597	-74,853	-0.75%
2020	6,148	253	4.29%	120,502	9,094	8.20%	10,069,577	191,980	1.94%

*Source: 2020 Decennial Census and the 2022 American Community Survey - U.S. Census Bureau*

County as a whole at a slightly slower rate. Recent data has the County ranked as the fourth fastest growing county in the state behind Ottawa, Grand Traverse, and Kent Counties respectively. Gun Plain Charter Township, while not growing as fast as the County, is continuing to experience an increase in population.

The State of Michigan has and is experiencing a different population trend. The state showed a much slower growth during the 1970 to 2000 period. It had a slight decrease in population between 2000 and 2010 before a modest increase in population during the past decade. Despite the increase in population, Michigan is the second slowest growing state in the country.

Chart 1 on the following page illustrates the actual and projected growth of Gun Plain Charter Township. Projection 1 illustrates the potential growth based on the change from 1970 to 2020. Projection 2 is modest projection based on the period from 2000 to 2020.

**Effect of Population Change**

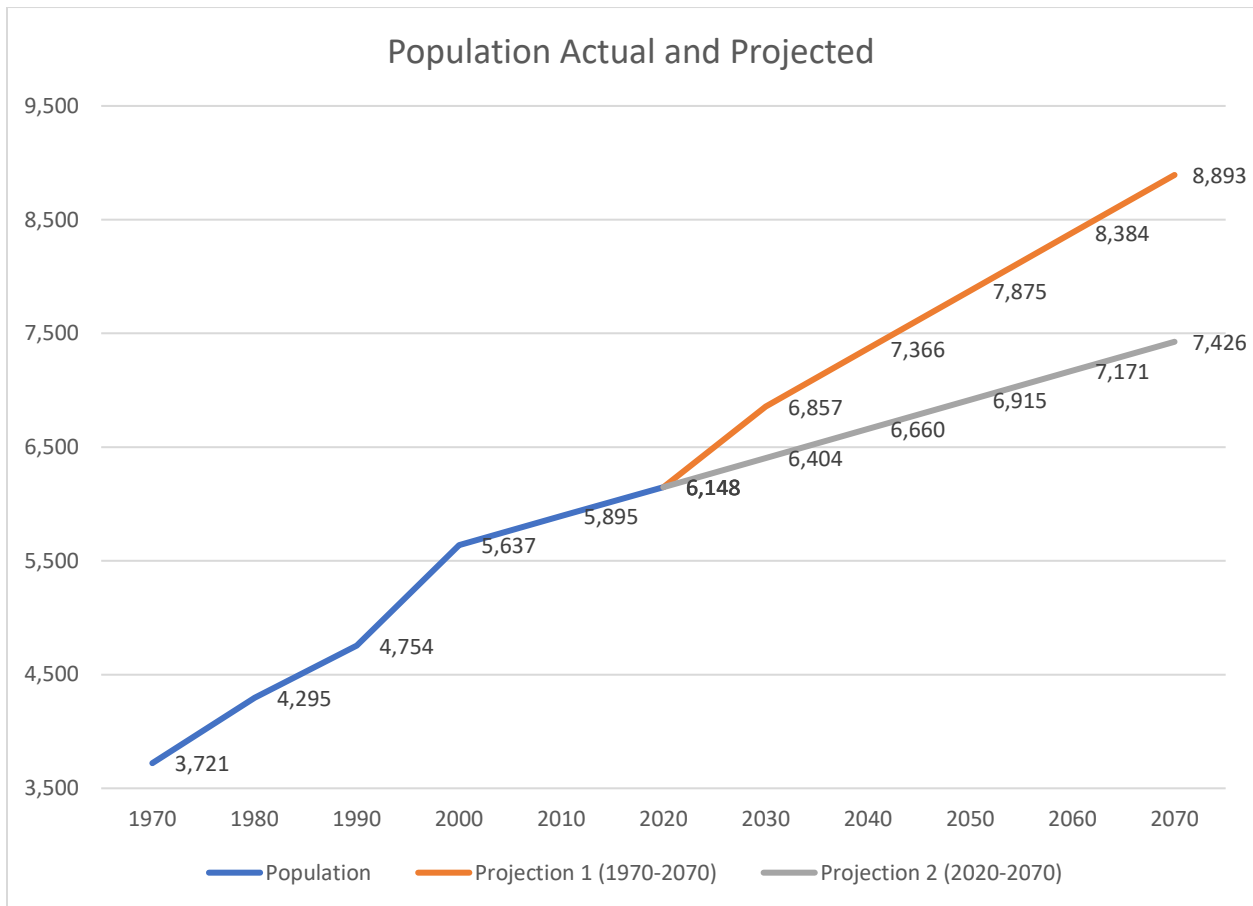
Continuing population growth will increase demands on Gun Plain Charter Township for rezonings from Agricultural to Residential to provide increased housing opportunities. The associated need to extend utilities will accompany those requests and provides an opportunity for the Township to direct growth.

**Age Distribution**

The Township's 2010 median age was 41.7 years, up 12.1% from the 2000 census when the median was 37.2 years. In 2020 the median age had risen to 46.2 years. Consistent with state and national trends, it is evident that Gun Plain Charter Township's population is aging, and it is not likely to escape the aging population's social, health, and fiscal implications.

A good measure of change within a community can be obtained by comparing age distribution over time. This helps to determine, for example, the type of housing demands and recreational facilities that may be needed. Where a large segment of residents is younger, the community might benefit from childcare and playground facilities. If there are few retirees, one conclusion could be that older persons are forced to move away due to a lack of senior living opportunities. Conversely, a higher-than-average number of retirement-age persons may reflect the existence of a large nursing home or a retirement community.

Chart 1.

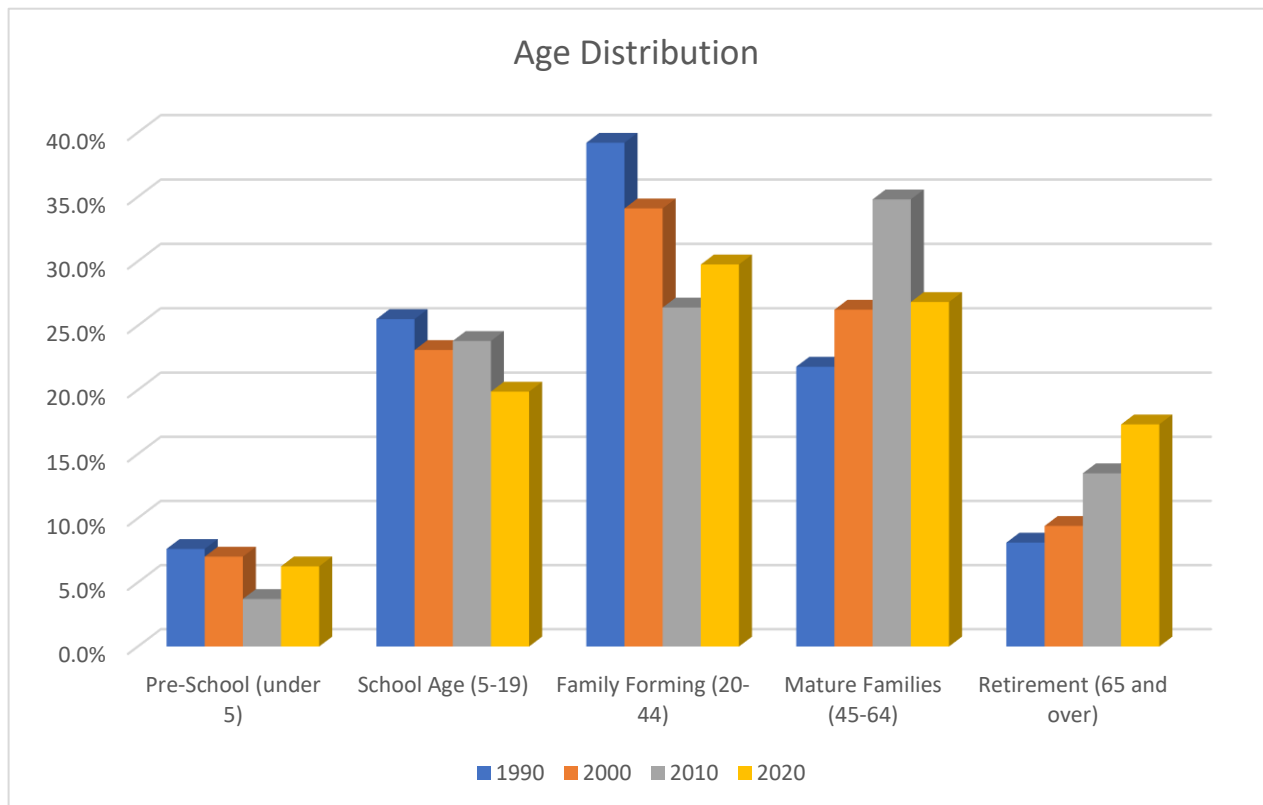


In the past, Gun Plain Charter Township's population was distributed by age in a classic pyramidal shape (see the "blue" bars), as illustrated by the 1990 age group comparisons in the above figure. In 1990 and 2000, the 18 to 44 age brackets contained the highest percentage of the population. Since 1990 however, the percentage of the population in that age group has fallen significantly while rebounding slightly in 2020.

Mature Families, ages 45 to 64, now represent the second highest percentage of the population, with Retirement persons increasing dramatically. The population over the age of 45 now represents over 48% of the population. In 1990, barely 30% of the Township's population was over 45. Today, 44.2% of the population is over age 45.

Often the demand for empty nester housing in rural townships is filled in nearby villages and towns. Since Gun Plain Charter Township does not presently support a senior living /retirement housing facility, some in this age group will tend to move elsewhere, and combined with mortality, here as elsewhere, there is a noticeably steep drop off in the relative population numbers between the mature family and retirement age groups. Within Gun Plain Charter Township, the drop-off has been lessened by many retirement-age people that continue to stay or move into the Doster Lake Community.

Chart 2.



### Effect of Population Change

In some communities, an aging population indicates a potential future demand for passive recreational facilities that older residents might enjoy. Examples are a demand for walking trails, indoor community gathering spaces, and a shift away from support for active facilities such as ball fields and tennis courts.

### Racial and Ethnic Characteristics

The racial composition of Gun Plain Charter Township has changed slightly since 2010. The most significant shift is in the population segment identifying as being of two or more races. In 2010, 1.6% of the



population reported as two or more races. By 2020, that percentage had increased to 5.1%. Those persons identifying as white have decreased from 95.3% to 94.9% in 2020.

The number and percent of persons identifying as Black, American Indian, Asian, Pacific Islander, or another race remain relatively constant.

Overall, the racial distribution of the population in Gun Plain Charter Township exhibits characteristics very similar to those defined in the 2015 update.

**Table 3.**  
**Population by Race**

Population by Race	Total		Non-Hispanic		Hispanic	
	Number	Percent	Number	Percent	Number	Percent
Total	6,148	100.0%	5,949	96.8	199	3.2
Population Reporting One Race	5,832	94.9%	5,698	92.7%	134	2.2%
White	5,629	91.6%	5,573	90.6%	56	0.9%
Black	38	0.6%	38	0.6%	0	0.0%
American Indian	36	0.6%	29	0.5%	7	0.1%
Asian	37	0.6%	37	0.6%	0	0.0%
Pacific Islander	1	0.0%	1	0.0%	0	0.0%
Some Other Race	91	1.5%	20	0.3%	71	1.2%
Population Reporting Two or More Races	316	5.1%	251	4.1%	65	1.1%

Source: 2020 U.S. Census Bureau and the American Community Survey 2022

**Table 4.**  
**Ethnicity by Place of Birth and Ancestry**

Birth and Ancestry	Gun Plain Charter Township		Allegan County		Michigan	
	Number	Pct (%)	Number	Pct (%)	Number	Pct (%)
PLACE OF BIRTH						
Total population	6,093	6,093	117,104	117,104	9,973,907	9,973,907
Native	6,017	98.8%	113,096	96.6%	9,287,260	93.1%
Born in United States	5,958	97.8%	112,262	95.9%	9,205,101	92.3%
State of residence	5,054	82.9%	93,955	80.2%	7,608,947	76.3%
Different state	904	14.8%	18,307	15.6%	1,596,154	16.0%
Born in Puerto Rico, U.S. Island areas, or born abroad to American parent(s)	59	1.0%	834	0.7%	82,159	0.8%
Foreign born	76	1.2%	4,008	3.4%	686,647	6.9%

Birth and Ancestry	Gun Plain Charter Township		Allegan County		Michigan	
	Number	Pct (%)	Number	Pct (%)	Number	Pct (%)
<b>WORLD REGION OF BIRTH OF FOREIGN BORN</b>						
Foreign-born population	76	76	4,008	4,008	686,637	686,637
Europe	40	52.6%	571	14.2%	129,679	18.9%
Asia	0	0.0%	840	21.0%	353,277	51.5%
Africa	0	0.0%	106	2.6%	36,706	5.3%
Oceania	0	0.0%	11	0.3%	2,651	0.4%
Latin America	36	47.4%	2,328	58.1%	127,411	18.6%
Northern America	0	0.0%	152	3.8%	36,913	5.4%
<b>ANCESTRY</b>						
Total population	6,093	6,093	117,104	117,104	9,973,907	9,973,907
American	291	4.8%	6,054	5.2%	495,910	5.0%
Arab	0	0.0%	79	0.1%	197,602	2.0%
Czech	0	0.0%	463	0.4%	42,127	0.4%
Danish	10	0.2%	339	0.3%	35,196	0.4%
Dutch	1,125	18.5%	25,415	21.7%	427,818	4.3%
English	982	16.1%	10,711	9.1%	882,533	8.8%
French	168	2.8%	3,412	2.9%	365,840	3.7%
French Canadian	38	0.6%	834	0.7%	149,319	1.5%
German	977	16.0%	22,414	19.1%	1,849,636	18.5%
Greek	18	0.3%	169	0.1%	44,042	0.4%
Hungarian	8	0.1%	341	0.3%	84,705	0.8%
Irish	586	9.6%	10,215	8.7%	1,017,747	10.2%
Italian	422	6.9%	2,664	2.3%	452,303	4.5%
Lithuanian	0	0.0%	255	0.2%	28,873	0.3%
Norwegian	26	0.4%	761	0.6%	76,776	0.8%
Polish	660	10.8%	6,192	5.3%	795,784	8.0%
Portuguese	0	0.0%	31	0.0%	6,754	0.1%
Russian	0	0.0%	367	0.3%	64,561	0.6%
Scotch-Irish	30	0.5%	741	0.6%	69,227	0.7%
Scottish	116	1.9%	1,882	1.6%	207,358	2.1%
Slovak	13	0.2%	168	0.1%	22,463	0.2%
Sub-Saharan African	25	0.4%	179	0.2%	76,468	0.8%
Swedish	323	5.3%	1,478	1.3%	132,003	1.3%
Swiss	86	1.4%	285	0.2%	23,403	0.2%
Ukrainian	0	0.0%	136	0.1%	37,061	0.4%
Welsh	48	0.8%	633	0.5%	47,828	0.5%
West Indian	0	0.0%	15	0.0%	17,205	0.2%

Source: 2020 Decennial Census and the 2022 American Community Survey - U.S. Census Bureau

Effect of Racial and Ethnic Characteristic Changes

With a very stable socioeconomic population there are no anticipated actions needed to accommodate the requirements of a changing populace. In communities with a diversifying population base a primary need is often for services to support persons whose first language is not English. That is not an immediate necessity for the Township. In the future, as the socioeconomic characteristics change that need may increase.

Households

In 2020 there were approximately 2,383 households in Gun Plain, up from 2,170 homes in the Township in 2010. The average household size continues to decline from 2.76 persons in 2000 to 2.56 persons in 2020. This continues a national trend of more households but fewer persons, as seen throughout most of the country.

Table 5.  
 Household Number and Size

	2000	2010	2020
Number of Households	2,038	2,170	2,383
Average Household Size	2.76	2.71	2.56

Source: 2020 U.S. Census Bureau and the American Community Survey 2022

The characteristics of the Gun Plain Charter Township continues to be dominated by married couple households. Just under 65% of the households are married couples as compared to 59% in Allegan County and 47% in the state of Michigan.

The households tend to be slightly more weighted than those in the County or the State in terms of the household having children under 18 or living alone. This is expected when considering the age distribution as noted in a previous sub-section.

Table 6.  
 Household Characteristics

	Gun Plain Charter Township		Allegan County		Michigan	
	Number	Pct (%)	Number	Pct (%)	Number	Pct (%)
HOUSEHOLDS BY TYPE						
Total households	2,383	2,383	43,927	43,927	3,980,408	3,980,408
Married-couple household	1,541	64.7%	25,758	58.6%	1,865,163	46.9%
Cohabiting couple household	174	7.3%	2,853	6.5%	274,020	6.9%
Male householder, no spouse/partner	131	5.5%	6,701	15.3%	746,081	18.7%

	Gun Plain Charter Township		Allegan County		Michigan	
	Number	Pct (%)	Number	Pct (%)	Number	Pct (%)
present						
Householder living alone	98	4.1%	4,702	10.7%	547,926	13.8%
65 years and over	42	1.8%	1,467	3.3%	161,820	4.1%
Female householder, no spouse/partner present	537	22.5%	8,615	19.6%	1,095,144	27.5%
Householder living alone	378	15.9%	4,844	11.0%	641,668	16.1%
65 years and over	338	14.2%	2,727	6.2%	329,492	8.3%
Households with one or more people under 18 years	874	36.7%	14,413	32.8%	1,124,891	28.3%
Households with one or more people 65 years and over	823	34.5%	13,061	29.7%	1,224,122	30.8%
Average household size	2.56		2.64		2.45	
Average family size	2.99		3.07		3.05	
<b>RELATIONSHIP</b>						
Population in households	6,090	6,090	115,822	115,822	9,748,164	9,748,164
Householder	2,383	39.1%	43,927	37.9%	3,980,408	40.8%
Spouse	1,554	25.5%	25,717	22.2%	1,862,877	19.1%
Unmarried partner	175	2.9%	2,940	2.5%	276,528	2.8%
Child	1,725	28.3%	35,896	31.0%	2,809,167	28.8%
Other relatives	133	2.2%	4,603	4.0%	507,394	5.2%
Other nonrelatives	120	2.0%	2,739	2.4%	311,790	3.2%

Source: 2020 Decennial Census and the 2022 American Community Survey - U.S. Census Bureau

**Effect of Household Changes**

The reduced number of persons per household amplifies the need for more housing units but not necessarily larger units. The increasing number of persons over 65 living alone or with one or more persons would indicate the need for more alternative housing for seniors.

**Educational Attainment**

The educational attainment of the Gun Plain Charter Township continues to increase. In 2010 of those persons aged 25 and older, 93.4% had completed four (4) years of high school or more. Based on the 2020

Census, 95.2% were high school graduates or held higher degrees. Compared to Allegan County, where 15.6% have a bachelor’s degree, 25.6% of the Township residents have attained that level of education. In the Township, 38.0% of the residents have bachelor’s degree or higher as compared to 23.6% of Allegan County residents.

Higher levels of educational attainment typically reflect higher levels of income associated with the types of employment held by the residents. This is supported by the information in the following two sub-sections on Income and Employment.

As access to information becomes increasingly important for the educational attainment of all groups of people. Table 8 shows that is true for the residents of Gun Plain Charter Township. People in the Township consistently use computers or other devices more than the residents of the County or the state of Michigan as a whole.

It should be noted that access to the Internet does reflect the quality of the connection. That is addressed in Chapter 3 – Community Facilities where actions by Gun Plain Charter Township and Allegan County to improve Internet access are noted.

*Table 7.*  
**Educational Attainment**

EDUCATIONAL ATTAINMENT	Gun Plain Charter Township		Allegan County		Michigan	
	Number	Pct (%)	Number	Pct (%)	Number	Pct (%)
Population 25 years and over	4,438		79,738		6,853,674	
Less than 9th grade	31	0.70%	2,414	3.00%	186,848	2.7%
9th to 12th grade, no diploma	183	4.10%	4,580	5.70%	409,465	6.0%
High school graduate (includes equivalency)	1,143	25.80%	29,398	36.90%	1,955,654	28.5%
Some college, no degree	1,040	23.40%	17,720	22.20%	1,587,649	23.2%
Associate degree	355	8.00%	6,844	8.60%	658,927	9.6%
Bachelor’s degree	1,138	25.60%	12,465	15.60%	1,251,117	18.3%
Graduate or Professional degree	548	12.30%	6,317	7.90%	804,014	11.7%
High school graduate or higher	4,224	95.20%	72,744	91.20%	6,257,361	91.3%
Bachelor's degree or higher	1,686	38.00%	18,782	23.60%	2,055,131	30.0%

Source: 2020 U.S. Census and 2022 ACS

**Table 8.**  
**Educational Attainment and Computer/Internet Access**

Educational Attainment and Computer/Internet Access	Gun Plain Township		Allegan County		Michigan	
	Number	Pct (%)	Number	Pct (%)	Number	Pct (%)
<b>Total:</b>	<b>4,435</b>		<b>78,593</b>		<b>6,721,801</b>	
Less than high school graduate or equivalency:	214	4.8%	6,714	8.5%	565,714	8.4%
Has a computer:	176	82.2%	5,183	77.2%	453,304	80.1%
With dial-up Internet subscription alone	5	2.8%	17	0.3%	1,709	0.4%
With a broadband Internet subscription	171	97.2%	4,362	84.2%	389,253	85.9%
Without an Internet subscription	0	0.0%	804	15.5%	62,342	13.8%
No computer	38	17.8%	1,531	22.8%	112,410	19.9%
High school graduate (includes equivalency), some college or associate degree:	2,535	57.2%	53,268	67.8%	4,114,281	61.2%
Has a computer:	2,414	95.2%	48,940	91.9%	3,792,967	92.2%
With dial-up Internet subscription alone	8	0.3%	226	0.5%	14,495	0.4%
With a broadband Internet subscription	2,199	91.1%	45,142	92.2%	3,486,424	91.9%
Without an Internet subscription	207	8.6%	3,572	7.3%	292,048	7.7%
No computer	121	4.8%	4,328	8.1%	321,314	7.8%
Bachelor's degree or higher:	1,686	38.0%	18,611	23.7%	2,041,806	30.4%
Has a computer:	1,686	100.0%	18,376	98.7%	2,002,353	98.1%
With dial-up Internet subscription alone	19	1.1%	70	0.4%	3,300	0.2%
With a broadband Internet subscription	1,625	96.4%	17,652	96.1%	1,936,371	96.7%
Without an Internet subscription	42	2.5%	654	3.6%	62,682	3.1%
No computer	0	0.0%	235	1.3%	39,453	1.9%

Source: 2020 U.S. Census Bureau and the American Community Survey 2022

Effect of Educational Attainment

As stated, the higher the level of education the higher the wages and salaries of the positions held by those persons. There are no actions that can be directly contributed or required by the Township to affect educational attainment. The access to good schools, vocational education and institutes of higher education afforded in the region are the driving factors of educational attainment.

Income

Median household and per capita income are traditional indices used to measure an area's economic strength.

Table 9.  
 Per Capita Income Based on Educational Attainment

Per Capita Income	Gun Plain Charter Township	Allegan County
Total Per Capita Income	\$47,830	\$40,775
Less than a high school graduate	\$19,032	\$32,788
High school graduate (includes equivalency)	\$31,154	\$32,764
Some college or associate degree	\$36,619	\$40,311
Bachelor's degree	\$53,194	\$53,859
Graduate or professional degree	\$68,950	\$62,829

Source: 2020 U.S. Census Bureau and the American Community Survey 2022

Comparing the per capita income in Gun Plain Charter Township to neighboring communities illustrates a clear difference.

Chart 3.

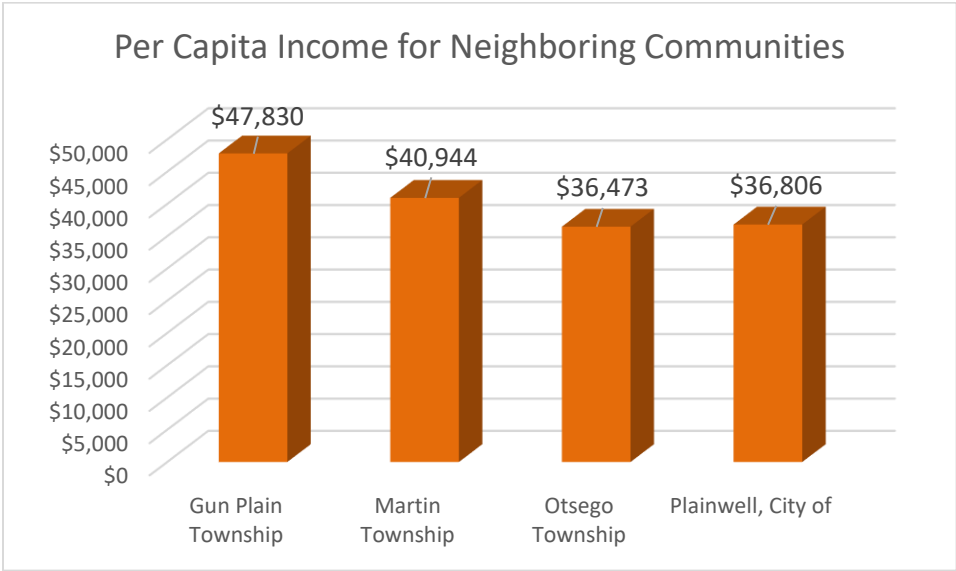


Table 10.  
**Household Income in the Past 12 Months**

	Gun Plain Charter Township		Allegan County		Michigan	
	Number	Pct. (%)	Number	Pct. (%)	Number	Pct. (%)
Occupied housing units	2,383	2,383	43,927	43,927	3,980,408	3,980,408
Less than \$5,000	62	2.6%	766	1.7%	124,717	3.1%
\$5,000 to \$9,999	5	0.2%	865	2.0%	129,707	3.3%
\$10,000 to \$14,999	21	0.9%	1,186	2.7%	164,841	4.1%
\$15,000 to \$19,999	69	2.9%	1,482	3.4%	173,968	4.4%
\$20,000 to \$24,999	190	8.0%	2,238	5.1%	191,008	4.8%
\$25,000 to \$34,999	178	7.5%	4,346	9.9%	383,601	9.6%
\$35,000 to \$49,999	197	8.3%	5,881	13.4%	527,421	13.3%
\$50,000 to \$74,999	516	21.7%	8,822	20.1%	723,559	18.2%
\$75,000 to \$99,999	223	9.4%	7,043	16.0%	515,271	12.9%
\$100,000 to \$149,999	581	24.4%	7,249	16.5%	582,349	14.6%
\$150,000 or more	341	14.3%	4,049	9.2%	463,966	11.7%
Median household income (dollars)	72,764		65,071		59,234	

As shown in the table above, Gun Plain Charter Township exhibits significantly higher median household income than Allegan County of the state of Michigan.

**Effect of Income**

Income levels are also helpful indicators that may parallel disparities between communities in such areas as educational attainment and skill level. Income can also have land use implications. People with higher incomes often invest more in their homes and generally have more disposable income. These factors typically equate to higher property values, more support for nearby commercial activity, larger homes, and more cars per family.

**Employment Characteristics**

Employment characteristics are based on the Standard Occupational Classification (SOC) 4-digit code. It should be noted that in 2018 the SOC codes were revised. As such, it is difficult to compare current data with older employment characteristics. Therefore, the data presented is based on 2020 ACS -5year information.

One characteristic that can be compared is the number of persons aged 16 and over that are in the Gun Plain Charter Township labor force. In 2013 that number was estimated by the Census Bureau as 4,742 persons. In 2020 that number is 2,837.



That significant decline can be attributed to several factors. First, with an aging population a growing number of people have naturally moved into retirement. Second, during the Covid pandemic government actions enabled a significant portion of the workforce to receive enhanced unemployment benefits. A number of persons, as the pandemic lessened opted for early retirement as well. This combination of factors has led to a decrease in the size of the labor force.

The following tables and chart provide the employment characteristics for Gun Plain Charter Township as compared to Allegan County and the State of Michigan. The data does illustrate that the largest employment are those residents in the management, business, science, and arts occupations. These professions represent the higher positions which is reflective of the income characteristics as shown in the preceding section.

*Table 11.*  
**Employment Characteristics**

Employment Characteristics	Gun Plain Charter Township	Allegan County	Michigan
Civilian employed population 16 years and over	2,837	55,405	4,658,357
<b>Management, business, science, and arts occupations</b>	<b>1,323</b>	<b>17,523</b>	<b>1,752,147</b>
Management, business, and financial occupations	496	7,958	688,994
Management occupations	298	5,658	454,488
Business and financial operations occupations	198	2,300	234,506
Computer, engineering, and science occupations	163	2,651	311,324
Computer and mathematical occupations	27	833	126,491
Architecture and engineering occupations	116	1,407	145,862
Life, physical, and social science occupations	20	411	38,971
Education, legal, community service, arts, and media occupations	341	3,964	444,719
Community and social service occupations	60	807	78,788
Legal occupations	17	315	39,204
Educational instruction, and library occupations	178	2,316	245,031
Arts, design, entertainment, sports, and media occupations	86	526	81,696
Healthcare practitioners and technical occupations	323	2,950	307,110
Health diagnosing and treating practitioners and other technical occupations	187	1,901	210,060
Health technologists and technicians	136	1,049	97,050
<b>Service occupations</b>	<b>400</b>	<b>8,111</b>	<b>805,030</b>
Healthcare support occupations	85	1,556	168,025
Protective service occupations	65	472	77,451
Firefighting and prevention, and other protective service workers including supervisors	7	218	41,066
Law enforcement workers including supervisors	58	254	36,385

Employment Characteristics	Gun Plain Charter Township	Allegan County	Michigan
Food preparation and serving related occupations	146	3,128	273,965
Building and grounds cleaning and maintenance occupations	16	1,931	167,808
Personal care and service occupations	88	1,024	117,781
<b>Sales and office occupations</b>	<b>383</b>	<b>10,518</b>	<b>962,900</b>
Sales and related occupations	206	4,613	439,544
Office and administrative support occupations	177	5,905	523,356
<b>Natural resources, construction, and maintenance occupations</b>	<b>254</b>	<b>6,631</b>	<b>366,692</b>
Farming, fishing, and forestry occupations	-	603	24,650
Construction and extraction occupations	94	3,146	198,705
Installation, maintenance, and repair occupations	160	2,882	143,337
<b>Production, transportation, and material moving occupations</b>	<b>477</b>	<b>12,622</b>	<b>771,588</b>
Production occupations	282	7,944	424,645
Transportation occupations	95	2,254	161,761
Material moving occupations	100	2,424	185,182

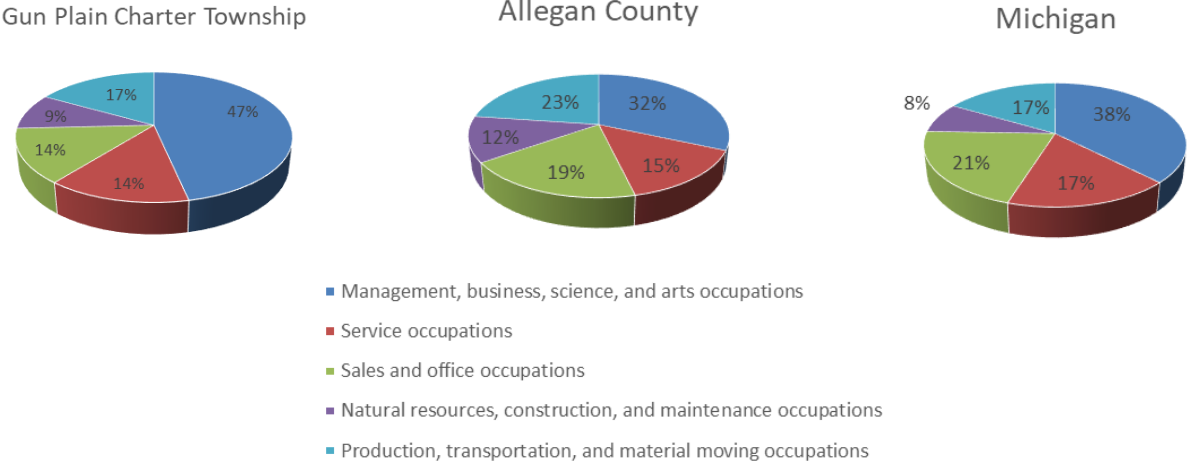
Source: 2020 Census and the 2022 American Community Survey

Table 12.  
**Employment by Major Standard Occupational Classification**

Employment by Major SOC	Gun Plain Charter Township	Allegan County	Michigan
Management, business, science, and arts occupations	47%	32%	38%
Service occupations	14%	15%	17%
Sales and office occupations	14%	19%	21%
Natural resources, construction, and maintenance occupations	9%	12%	8%
Production, transportation, and material moving occupations	17%	23%	17%

Source: 2020 Census and the 2022 American Community Survey

**Chart 4.**  
**Employment by Major SOC By Percentage**



**Effect of Employment**

The employment characteristics reflect the opportunities within the Township and more importantly, within the region. The factor that the Township can have a direct impact on is the type of economic development opportunities generated. Clearly the largest employment sector is in the management, business, science and arts occupations. However, economic development is best achieved through a collaborative effort of local, regional, and state entities. That has been occurring and will hopefully continue in the future.

**Housing Characteristics**

Housing in Gun Plain Charter Township is dominated by single-family detached structures. There are relatively few duplexes, apartments, or manufactured housing structures in the Township.

**Effect of Housing**

The effect of the housing characteristics is that demand in the future is likely to be for single-family homes. However, with an aging population there may be a demand for other housing types. Older residents are likely to gravitate to housing accommodations that afford quality construction with little or no interior or exterior maintenance requirements.

*Table 13.*  
**Housing Characteristics**

Occupied Housing Units	Gun Plain Charter Township		Allegan County		Michigan	
	Number	Pct (%)	Number	Pct (%)	Number	Pct (%)
Occupied housing units	2,383		43,927		3,980,408	
UNITS IN STRUCTURE						
1, detached	2,100	88.1%	34,275	78.0%	2,880,503	72.4%
1, attached	60	2.5%	1,270	2.9%	191,078	4.8%
2 apartments	0	0.0%	699	1.6%	83,255	2.1%
3 or 4 apartments	0	0.0%	585	1.3%	103,759	2.6%
5 to 9 apartments	0	0.0%	864	2.0%	170,774	4.3%
10 or more apartments	8	0.3%	1,197	2.7%	353,641	8.9%
Mobile home or other type of housing	215	9.0%	5,037	11.5%	197,398	5.0%
YEAR STRUCTURE BUILT						
2014 or later	58	2.4%	1,501	3.4%	72,634	1.8%
2010 to 2013	25	1.0%	934	2.1%	50,644	1.3%
2000 to 2009	447	18.8%	5,990	13.6%	405,917	10.2%
1980 to 1999	855	35.9%	13,566	30.9%	934,576	23.5%
1960 to 1979	617	25.9%	9,256	21.1%	1,087,256	27.3%
1940 to 1959	214	9.0%	4,949	11.3%	878,739	22.1%
1939 or earlier	167	7.0%	7,731	17.6%	550,642	13.8%

Source: 2020 Census and American Community Survey

**Mobility Characteristics**

Gun Plain Charter Township exhibits a very stable population in terms of mobility. Based on 2020 data, which is the most recent available and reflects pre-pandemic information since the IRS mobility data lags by two (2) years, there is relatively little movement by people. The change that occurred was primarily existing residents moving within the Township. The only other group that moved were those persons who move to the Township from a different county with the state of Michigan.

There were no persons who moved from a different state or from abroad. However, that needs to be taken in context. The Census Bureau and the IRS do not report very small numbers of persons moving for confidentiality reasons. Therefore, while those two categories list no persons moving, there may have been a number too small to meet the reporting requirements.

During the same period, Allegan County experienced over 1,000 persons moving from a different state or from abroad. It is likely that a portion of those moving located in Gun Plain Charter Township.

*Table 14.*  
**Mobility Characteristics of Householder**

Mobility by Owner and Renter Householders	Gun Plain Charter Township		Allegan County		Michigan	
	Number	Pct (%)	Number	Pct (%)	Number	Pct (%)
Total:	6,042		114,535		9,640,123	
Householder lived in owner-occupied housing units	5,871	97.2%	98,564	86.1%	7,189,122	74.6%
Householder lived in renter-occupied housing units	171	2.8%	15,971	13.9%	2,451,001	25.4%
Same house 1 year ago:	5,860		104,299		8,433,150	
Householder lived in owner-occupied housing units	5,689	97.1%	91,727	87.9%	6,635,120	78.7%
Householder lived in renter-occupied housing units	171	2.9%	12,572	12.1%	1,798,030	21.3%
Moved within same county:	161		4,880		726,251	
Householder lived in owner-occupied housing units	161	100.0%	2,999	61.5%	324,350	44.7%
Householder lived in renter-occupied housing units	0	0.0%	1,881	38.5%	401,901	55.3%
Moved from different county within same state:	21		4,275		312,134	
Householder lived in owner-occupied housing units	21	100.0%	3,100	72.5%	152,926	49.0%
Householder lived in renter-occupied housing units	0	0.0%	1,175	27.5%	159,208	51.0%
Moved from different state:	0		906		127,507	
Householder lived in owner-occupied housing units	0	0.0%	597	65.9%	61,172	48.0%
Householder lived in renter-occupied housing units	0	0.0%	309	34.1%	66,335	52.0%

Mobility by Owner and Renter Householders	Gun Plain Charter Township		Allegan County		Michigan	
	Number	Pct (%)	Number	Pct (%)	Number	Pct (%)
Moved from abroad:	0		175		41,081	
Householder lived in owner-occupied housing units	0	0.0%	141	80.6%	15,554	37.9%
Householder lived in renter-occupied housing units	0	0.0%	34	19.4%	25,527	62.1%

Source: 2020 U.S. Census, American Community Survey, and IRS Mobility data

Effect of Mobility

The effect of mobility is that it reflects stability. The Township provides an environment that encourages people to stay.

Transportation to Work

Not surprisingly, the majority of residents who commute to work do so either by themselves or in a carpool. Gun Plain Charter Township is a typical community whose employment base is outside of the home.

Table 15.  
 Transportation Characteristics of Householder

Transportation to Work by Owner and Renter In Occupied Housing Units	Gun Plain Charter Township		Allegan County		Michigan	
	Number	Pct (%)	Number	Pct (%)	Number	Pct (%)
<b>Total:</b>	<b>2,777</b>		<b>54,100</b>		<b>4,520,710</b>	
Householder lived in owner-occupied housing units	2,703	97.3%	46,998	86.9%	3,395,877	75.1%
Householder lived in renter-occupied housing units	74	2.7%	7,102	13.1%	1,124,833	24.9%
Car, truck, or van - drove alone:	2,389	86.0%	45,405	83.9%	3,669,232	81.2%
Householder lived in owner-occupied housing units	2,315	96.9%	39,879	87.8%	2,825,719	77.0%

Transportation to Work by Owner and Renter In Occupied Housing Units	Gun Plain Charter Township		Allegan County		Michigan	
	Number	Pct (%)	Number	Pct (%)	Number	Pct (%)
Householder lived in renter-occupied housing units	74	3.1%	5,526	12.2%	843,513	23.0%
Car, truck, or van – carpooled:	270	9.7%	4,018	7.4%	389,391	8.6%
Householder lived in owner-occupied housing units	270	100.0%	3,227	80.3%	263,576	67.7%
Householder lived in renter-occupied housing units	0	0.0%	791	19.7%	125,815	32.3%
Public transportation (excluding taxicab):	11	0.4%	205	0.4%	53,661	1.2%
Householder lived in owner-occupied housing units	11	100.0%	200	97.6%	17,736	33.1%
Householder lived in renter-occupied housing units	0	0.0%	5	2.4%	35,925	66.9%
Walked:	0	0.0%	978	1.8%	85,024	1.9%
Householder lived in owner-occupied housing units	0	0.0%	583	0.0%	37,341	0.0%
Householder lived in renter-occupied housing units	0	0.0%	395	0.0%	47,683	0.0%
Taxicab, motorcycle, bicycle, or other means:	30	1.1%	505	0.9%	56,453	1.2%
Householder lived in owner-occupied housing units	30	100.0%	419	83.0%	32,184	57.0%
Householder lived in renter-occupied housing units	0	0.0%	86	17.0%	24,269	43.0%
Worked from home:	77	2.8%	2,989	5.5%	266,949	5.9%
Householder lived in owner-occupied housing units	77	100.0%	2,690	90.0%	219,321	82.2%

Transportation to Work by Owner and Renter In Occupied Housing Units	Gun Plain Charter Township		Allegan County		Michigan	
	Number	Pct (%)	Number	Pct (%)	Number	Pct (%)
Householder lived in renter-occupied housing units	0	0.0%	299	10.0%	47,628	17.8%

Source: 2020 Census and 2020 American Community Survey

**Effect of Transportation to Work**

The effect of transportation to work by the significant majority of residents by vehicles, is that continuing to provide access to good roads is a priority.

**Population Characteristics and Impact**

To summarize the population characteristics and associated impact a specific tool was employed. The Environmental Systems Research Institute (Esri) has developed Esri Tapestry Segmentation. This provides a detailed description of neighborhoods and communities based on their socioeconomic and demographic composition. It is an amalgamation of the information presented in this section plus additional data.

There are sixty-seven (67) tapestry segments defined by Esri. Ninety-eight (98%) percent of the Gun Plain Charter Township residents fall into two categories. Those are “Salt of the Earth” and “Middleburg”. The former category is the largest segment in the Township. “Salt of the Earth” is the largest category in Allegan County and the State of Michigan. “Middleburg” is the second largest segment in the Township as well as the 6<sup>th</sup> largest in the County and the 14<sup>th</sup> in the state.

The following, as generated by Esri Tapestry Segmentation provide information about each of the segments:

**Salt of the Earth**

*Salt of the Earth* residents are entrenched in their traditional, rural lifestyles. Citizens here are older, and many have grown children that have moved away. They still cherish family time and also tending to their vegetable gardens and preparing homemade meals. Residents embrace the outdoors; they spend most of their free time preparing for their next fishing, boating, or camping trip. The majority has at least a high school diploma or some college education; many have expanded their skill set during their years of employment in the manufacturing and related industries. They may be experts with DIY projects, but the latest technology is not their forte. They use it when absolutely necessary but seek face-to-face contact in their routine activities.

*The NEIGHBORHOOD*

- This large segment is concentrated in the Midwest, particularly in Ohio, Pennsylvania, and Indiana.
- Due to their rural setting, households own two vehicles to cover their long commutes, often across county



boundaries.

- Homeownership rates are very high (Index 133). Single-family homes are affordable, valued at 25% less than the national market.
- Nearly two in three households are composed of married couples; less than half have children at home.

*SOCIOECONOMIC TRAITS*

- Steady employment in construction, manufacturing, and related service industries.
- Completed education: 40% with a high school diploma only.
- Household income just over the national median, while net worth is nearly double the national median.
- Spending time with family is their top priority.
- Cost-conscious consumers, loyal to brands they like, with a focus on buying American.
- Last to buy the latest and greatest products.
- Try to eat healthy, tracking the nutrition and ingredients in the food they purchase.

**Middleburg**

*Middleburg* neighborhoods transformed from the easy pace of country living to semirural subdivisions in the last decade, as the housing boom spread beyond large metropolitan cities. Residents are traditional, family-oriented consumers. Still more country than rock and roll, they are thrifty but willing to carry some debt and are already investing in their futures. They rely on their smartphones and mobile devices to stay in touch and pride themselves on their expertise. They prefer to buy American and travel in the US. This market is younger but growing in size and assets.

*The NEIGHBORHOOD*

- Semirural locales within or adjacent to metropolitan areas.
- Neighborhoods changed rapidly in the previous decade with the addition of new single-family homes.
- Include a number of mobile homes (Index 150).
- Affordable housing, median value of \$175,000 (Index 84) with a low vacancy rate.
- Young couples, many with children; average household size is 2.75.

*SOCIOECONOMIC TRAITS*

- Education: 65% with a high school diploma or some college.
- Labor force participation typical of a younger population at 66.7% (Index 107).
- Traditional values are the norm here— faith, country, and family.
- Prefer to buy American and for a good price.
- Comfortable with the latest in technology for convenience (online banking or saving money on landlines) and entertainment.

The overview, neighborhood description and socioeconomic traits accurately portray the majority of Gun Plain Township residents as defined by the Esri Tapestry Segments and supported by the demographic information presented in this section.

The impact of these residents calls for a continuation of the development pattern occurring the in the Township. The majority want a continuation of the traditional, rural lifestyle. The second largest group, who tend to be newer residents living in housing developments that reflect country living in a semi-rural environment. Both segments are family-oriented.

The net effect is likely to be a degree of development pressure to convert farmland to residential uses. The counterpoint is the desire to preserve agricultural land as a means to continue the rural lifestyle. Future development proposals will have to consider the impact on the Township while, to the extent possible directing growth especially where infrastructure is available or can be extended to reduce suburban sprawl.

# Chapter 5 – PLANNING ANALYSIS

**Overview**

A key element in any Master Plan is understanding the socioeconomic trends influencing the planning area. The impact of the trends on the demands for land use, infrastructure, and policy decisions affect the goals and objectives of the plan.

**Population Trends and Projections**

Population trends refer to the historical direction a community has followed with respect to its population counts, while projections refer to the direction a community is anticipated to follow in future years. The Township has followed an increasing population trend over the past 50 years to reach its current population.

The following table and graph show that growth in the Township has been substantial and has progressed at a steady pace between 1970 and 2010. Growth occurred quickly during the first half of the last decade before falling off in 2007, just before the onset of the “great recession” nationwide. Empirical observations show that growth is once again occurring, but at a slow to moderate pace, compared to the growth experienced in the 90s and early 2000s. The past economic downturn and the current recovery underscore that growth and development are often cyclical. Therefore, future growth and development projections must consider both upturns and economic downturns.

*Table 16.*  
**Population Actual and Projected**

		Gun Plain Charter Township			Allegran County		
		Count	Change	% Chng	Count	Change	% Chng
Actual Count	1970	3,231			66,575		
	1975	3,765	534	16.5%	74,065	7,490	11.3%
	1980	4,298	534	14.2%	81,555	7,490	10.1%
	1985	4,526	228	5.3%	86,269	4,714	5.8%
	1990	4,754	228	5.0%	90,982	4,714	5.5%
	1995	5,196	442	9.3%	98,492	7,510	8.3%
	2000	5,637	442	8.5%	106,001	7,510	7.6%
	2005	5,766	129	2.3%	108,761	2,760	2.6%
	2010	5,895	129	2.2%	111,521	2,760	2.5%
	2015	6,022	127	2.1%	115,655	4,134	3.7%
Projected Count	2020	6,148	127	2.1%	119,788	4,134	3.6%
	2025	6,754	606	9.9%	125,866	6,078	5.1%
	2030	7,043	289	4.3%	132,040	6,174	4.9%
	2035	7,332	289	4.1%	137,392	5,352	4.1%
	2040	7,621	289	3.9%	142,005	4,613	3.4%
	2045	7,909	289	3.8%	145,603	3,598	2.5%

*Source: 2020 U.S. Census, Michigan State Data Center, Wightman*

Population projections are a bridge between the present and the future in the planning process and help predict future land use requirements and the demand for various public services and capital improvements. Population projections are only refined estimates of the future, for it is impossible to precisely forecast the results of economic trends coupled with untold individual and public decisions. Projections are essential "guesstimates" from which planning decisions are made.

Statistical averaging techniques have been employed to project the Township's population growth to the year 2045. The projections anticipate that the Township's population will likely continue to increase over the next 25 years at a rate close to the recent average historical rate. In other words, the Township's population will continue to represent approximately the same proportion of the County's overall population in the future as it does today. The population projections presented indicate an additional 1,800 persons by the year 2045. In contrast, a high prediction that assumes a return to rapid growth, such as experienced between 1995 and 2005, could result in a 2045 population of 8,355 people, roughly 2,000 more individuals than today.

Actual growth depends upon on regional, state, and national economic conditions, but growth can be influenced by local land use and development policies, especially in terms of how it is allowed to impact an area.

**Residential Land Needs**

The number of future housing units within a community can be estimated by utilizing a statistical formula. By dividing the projected population count by the average number of persons per dwelling unit, the projected number of housing units for various years is obtained. The projected total dwelling units are based on the population projections found in the previous table. By the year 2040, this results in an estimated 1,473 additional housing units needed.

*Table 17.*  
**Population and Housing Units**

	2000	2010	2020	2030	2040
Population	5,637	5,895	6,148	7,043	7,621
Housing Units	2,042	2,175	2,402	2,784	3,036

The land needed to support that increase in the number of housing units depends on the density of development.

*Table 18.*  
**Population and Housing Units**

	2020	2030	2040	Cumulative
Housing Units	2,402	2,784	3,036	
Change		382	252	635
Density - Acres Needed				
Low (1 unit per acre)		382	252	635
Medium (2 units per acre)		191	126	317
High (5 units per acre)		76	50	127

### Projection Summary

The forecasts presented above assume that the Township will continue to direct growth in the same essential patterns exhibited in the past. However, housing and population growth will be strongly impacted by trends experienced within the larger geographic region. This involves considering the growth characteristics of the Otsego/Plainwell sub-region, the Grand Rapids/Holland Metropolitan area, and the Kalamazoo metropolitan area. Significant determinants of future population and housing growth will include the following:

- The availability and ability to extend public utilities.
- The continued availability of jobs locally and within commuting distance as well as national trends towards working remotely.
- The economic health of other nearby industries and the ability to attract other forms of economic development.
- The effectiveness of local growth management and the quantity of housing development.
- Future gasoline/energy prices and their effect on people’s willingness to commute long distances to work. The quality of roads, congestion, and travel time to and from the area will also affect people's willingness to commute.
- The quality of life regarding the availability and quality of local support services required for development. These include police and fire protection, streets and sidewalks, parks, access to medical care, and quality schools and shopping opportunities.

### Development Implications

The preceding chapters and sections of the Master Plan have described the existing land use and socioeconomic and demographic conditions in Gun Plain Charter Township. This section draws from that data and the survey presented in the appendices. The following are some of the key planning issues or concerns that the Future Land Use Plan must address:

1. Developing solutions to balance the need and desire to preserve farmland and rural character while not squelching private property rights and desirable economic development is very important in the planning process. Restrictive zoning and voluntary preservation options such as the Purchase of Development Rights (PDR) and the Transfer of Development Rights (TDR), and other farmland preservation techniques must be recognized as methods by which to preserve farmland. In cooperation with Allegan County's farmland preservation initiatives, the Township can facilitate utilizing these voluntary methods.
2. The demand for rural living on the part of millennials is less than that of the baby boomer generation and coupled with the slow recovery in the housing market, the edge has been taken off strong housing demand and suburban sprawl. Nonetheless, the Township's rural character and easy access are likely to continue as attractions to the area, particularly second home and retirement home buyers. Their desire for elbow room and clean air will continue to result in the conversion of farmland to residential use, and as the countryside is slowly converted to homes and other uses, the features that first attracted families to the community are eliminated.

3. By requiring higher-density residential development to locate in strategic areas around the Township (where residential and commercial development concentrations already exist and where public utilities are most likely to be extended in the future), open space can be preserved elsewhere in the Township. This helps to meet the area’s housing needs, places priority on preserving open space and farmland, and creates the ability to better plan for economically feasible public utilities.
4. Strip development and dense development scattered haphazardly throughout the Township will fail to enhance or preserve rural character and will inevitably degrade environmental quality. Mixed-use developments, cluster development, conservation subdivisions, and open space preservation regulations are mechanisms that can be more fully utilized to preserve rural character and open space. These constructive growth management tools must be considered for full implementation in Gun Plain Charter Township. Combined with PDR and TDR options and overlay regulations designed to protect stream corridors and other important natural features, Gun Plain Charter Township will better manage its rural resources.
5. As in all communities, a full range of housing styles and density opportunities should exist in the Township. To support these potential opportunities the proactive allocation of utilities and sufficient land areas must be made available wherever possible.

# Chapter 6 – GOALS AND OBJECTIVES

## Overview

Planning goals are strategic statements that express and define the community's future. They provide long-range direction for virtually all planning activities. For that reason, there needs to be a good understanding of the community's planning goals in terms of the physical direction that they are leading and in terms of social, economic, and regulatory implications. Equally important, there needs to be a consensus among the elected officials and the Planning Commission that the goals stated in the Master Plan are relevant, realistic, and reflective of residents' and landowners' overall needs and desires. For these reasons, it is crucial that elected officials and the Planning Commission periodically review and revalidate its planning goals and the tools that it uses to achieve its goals.

A community's Goals and Objectives are related and co-dependent.

- A goal is a broad general statement of a final purpose or ambition. It is a position or situation that a community seeks to achieve.
- An objective is a specific action position that is specifically needed to accomplish a goal. Objectives are most often directive in tone and often referred to as "policy statements."

The following Goals and Objectives build upon the goals and objectives included in the previous Master Plan. They were refined after a process of identification and discussion of several current and emerging development issues. That process included analysis of demographic and development trends, discussions with Township officials, and, very importantly, after consideration of the views and concerns of individual citizens obtained during a property owner survey. The results of the survey are included in the appendix.

The statements below are listed by topic areas. Following each goal are objectives that serve to state the specific means of achieving the desired goal.

### Goal # 1: Agricultural Land - Preserve agricultural land and the rural character of the Township.

#### **Objectives**

- Maintain very low-density requirements for residential development in agricultural districts.
- Retain farmland preservation standards and modify the zoning ordinance to include overlay districts and other flexible conservation zoning techniques for the protection of important environmental features.
- Limit/prevent extension of water and sewer service into agricultural zones.
- Focus on residential and commercial development opportunities in zones closer to Plainwell, where services and infrastructure is more readily available.
- Effectively utilize site plan review standards to promote landscaping that is harmonious with the township's rural character.

- Promote public awareness of and enrollment in PA 116 (agricultural preservation easements) and PA 123 (purchase of development rights) programs.
- Encourage land trusts and land conservancy organizations to receive donations and purchase of easements and development rights to sensitive agricultural and open space corridors.
- Develop standards and utilize the site plan review and the special use permitting processes to implement standards that can be applied to structures and equipment that are ancillary to gas and oil exploration, development, and production facilities.

**Goal # 2: Open Space** - Preserve open space and control new growth's size, type, and location.

**Objectives:**

- Effectively use density standards and open space preservation techniques in the zoning ordinance to encourage open space development.
- Discourage commercial "strip" development. Promote cluster development that is sensitive to natural resources and landforms along with designated growth paths/ nodes.
- Utilize ordinance standards and private roads to reduce curb cuts and incorporate open space into residential development.
- Manage residential development rates at a sustainable level consistent with the capacity of local roads, schools, and services to accommodate growth.

**Goal # 3: Historic Resources** - Identify, protect, and preserve sensitive historic resources and the rural ambiance of the Township.

**Objectives:**

- Raise awareness and appreciation of the scenic quality of the Township by mapping, important view sheds, wooded areas and historic structures.
- Inventory historic buildings and increase awareness of historic preservation tax credit programs.
- Encourage preservation activities in keeping with the Federal government's "Standards for Rehabilitation".

**Goal # 4: Environment** - Protect the environment and conserve natural resources.

**Objectives:**

- Protect local rivers and tributaries, and wetlands from the encroachment of new development through the enforcement and expansion of "greenbelt" overlay zoning with the cooperation of EGLE
- Identify and substantially limit development in flood-prone areas.
- Protect the local watershed from contamination through heightened public awareness and zoning enforcement and ensuring compliance with state and national environmental laws during development.
- Protect wildlife corridors and areas of natural habitat through zoning and easement donation/



purchase.

- Develop guidelines and increase awareness of sustainable development practices. Build requirements/ incentives into zoning and site plan review process.
- Maintain wellhead protection programs in conjunction with the City of Plainwell. Incorporate zoning and site plan review standards within wellhead protection areas that reduce the potential for drinking water contamination.
- Further protect groundwater and surface water resources in the Township from overuse, diminishment, diversions, and contamination from spills and other releases of hazardous substances or other pollutants by creating standards for structures and equipment ancillary to gas/oil development and production operations and similar activities. Where practical, implement groundwater and surface water protection standards through the site plan review and special use permitting processes.

Goal # 5: [Transportation](#) - Manage traffic and mitigate its environmental impact.

**Objectives:**

- Restrict/ discourage the development and/or increasing capacity of roads in predominantly rural and agricultural portions of the township.
- Continue implementing an access management program along M-89 and incorporate standards in the zoning and site plan review process.
- Examine the feasibility of "traffic-calming" techniques in residential zones and children's play areas.
- Work with the County Road Commission and MDOT to study potential M-89 traffic benefits and feasibility of additional entrance/ exit ramps at the 106th St. /US 131 interchange.

Goal # 6: [Roads](#) - Improve the quality and maintenance of local roads.

**Objectives:**

- Work with the County Road Commission and MDOT to make regular surveys and establish realistic but effective road maintenance and repair schedules.
- Under the direction of the above agencies, identify and resolve potential problem areas. Incorporate repair/improvement schedule into local capital improvement plans.

Goal # 7: Maintain/improve the delivery of water, sewer, and other public services.

**Objectives:**

- Discourage the extension of sewer and water services into predominantly agricultural and low-density residential areas.
- Expand utility and sewer/water services and major improvements concurrent with development.

**Goal # 8: Internet Connectivity** - Encourage the expansion and enhance the broadband wireless communications network within the Township to enable faster, cheaper, and universal wireless and broadband connectivity.

**Objectives:**

- Identify key stakeholders and educate them on the importance of improving the local wireless broadband network.
- Work with providers to utilize best practices in deploying new wireless infrastructure.
- Provide a strong public voice for advocating system enhancements for residents and business owners.
- Find creative synergies between local governments, businesses, and the wireless industry to improve wireless broadband connectivity.
- Work with providers to utilize best practices in deploying a new wireless infrastructure and remove any unnecessary zoning or other local regulatory obstacles.

**Goal # 9: Recreation** - Expand recreational opportunities for Township residents and visitors.

**Objectives:**

- Support Allegan County Heritage Trail projects.
- Continue to work with the City of Plainwell and Plainwell Community Schools to ensure appropriate parks and recreation opportunities for Township residents.
- Continue to expand biking/walking trails.

## Chapter 7 – FUTURE LAND USE

### Overview

The Master Plan and Future Land Use Map serve as a guide for future growth. The Future Land Use Map is a graphic manifestation of the previously presented goals and objectives and the ideals of managed growth and physical resource protection. It considers many factors, including existing land use, land use trends, development issues, public input, demographics, environmental resources, physical limitations, and various transportation and infrastructure influences.

Looking at the Future Land Use Map at the end of this Chapter, it is noticeable that the most intensive development is to occur in a radial pattern, centered on the City of Plainwell and extending along the US 131, M-89, and other corridors. Due to the highways and easy access for automobiles, this pattern of development is expected.

Since the last update of the Master Plan, the development pattern has not considerably changed. However, the underlying factors favoring growth remain in place.

### Planning Principles

Three basic planning principles must be embodied within the Master Plan to help minimize sprawl's negative effects. They include:

- *Utilize and Preserve Agricultural Resources.* The Township continues to have a resilient agricultural community with abundant productive farmland. Land fragmentation and the proliferation of non-farm residences within the farming areas disrupt the efficiency of farm operations, and result in irreconcilable land use conflicts. Most new development should be located where soils and topography are not fully conducive to modern agricultural practices and where conflicts with farming operations will be minimized.
- *Smart Growth-Efficiency and Compactness.* Most development activity, whether as singular projects or as a series of smaller proposals with a collectively significant impact, should be directed to locations where the use of existing and planned public improvements can be maximized. Where allowed, rural residential clusters of homes should use natural and man-made boundaries and landmarks to create defined neighborhoods and to create sufficient buffers between home sites and nearby agricultural operations.
- *Protection of Natural Systems.* Natural areas and open spaces define much of the area's visual and physical character. Special attention is required to protect environmentally sensitive areas, particularly along rivers and streams and around lakes. Environmentally focused planning and regulatory tools are required to protect shorelines, wetlands, and floodplains and to preserve key natural habitats and wildlife populations.

## General Overview

An obvious aspect of the Future Land Use Map is the acceptance of moderate in-fill growth of single-family housing in the M-89 corridor and north along US-131, west of 10th Street. Ideally, new development along these corridors will be clustered and not the type of linear “rural sprawl” development that characterizes much of the M-89 corridor between Otsego and Allegan. Additionally, the Gun River basin in the interior portions of the Township is designated as “agricultural and open space” and “very low-density residential.” Coupled with similar designations in the south, along the Kalamazoo River, the “agricultural/open space” and “very low-density residential” designations encompass nearly three-fourths of the Township’s land area.

Another highlight of the Future Land Use Map is the rationalization that commercial and industrial development within the Township must be controlled. Neighborhood commercial development continues to be indicated for the 10th Street corridor from the airport south to the City of Plainwell and in the east, at 106th Avenue and Doster Road. West of the freeway, an area bounded by the Gun River on the north and Miller Road on the south continues to be identified as future general commercial/light industrial, as does the area along M-89 west of Plainwell due to relatively good highway access consistency with existing land use patterns. In the southwest corner of the township, various areas along and near Douglas Avenue continue to be identified as being appropriate for general commercial or light industrial use. It is noteworthy, however, that the extent of the commercial and light industrial areas in the southwest have been scaled back from the previous plan. This has been done to better control sprawl and commercial strip development and to promote a transitional land use pattern southward to rural residential and agriculture.

The Master Plan and Future Land Use Map must be periodically reviewed and revised. In that way, the Master Plan can reflect changes brought about by changing economic conditions and social trends while still maintaining long-range goals. There is also no precise schedule for implementing the recommendations contained in the plan. For example, the timing of a rezoning to allow for low-density residential development in an area currently zoned for agricultural use will be dependent upon several factors, the most important of which is the availability of infrastructure, including public utilities, adequate roadways and public services such as police and fire protection.

## FUTURE LAND USE CATEGORIES

The following describes several key plan elements, various future land use categories depicted on the Future Land Use Map, and supporting recommendations.

### Agriculture Conservation and Rural Preservation

To preserve the agricultural base of Gun Plain Charter Township and to maintain its rural character, the Master Plan promotes the continuance of an "Agricultural and Open Space District" and a "Very Low Density (rural) Residential" planning district. Combined with these two districts is a “Sensitive Environments” overlay district. Together, these planning categories comprise a strategy for conserving agriculture and preserving rural character.

- **“Agriculture/Open Space Planning District”** (AG- Agricultural Zoning District) are areas in which farming activity is promoted as the primary long-term land use, and non-farm development is

discouraged. The focus is to enable strong farming influence to continue where it is well established and least impacted by existing development.

- **“Very Low-Density Residential Planning District”** (R-1 Rural Estates Zoning District) are areas where farming is still permitted but where limited residential development will be permitted at low densities. This district is characterized by rolling topography, extensive shrubland and woodlands, and significant wetland and other open lands in a relatively natural or recently undisturbed state. Very low-density residences and appropriately designed rural residential cluster developments with somewhat higher net densities may be accommodated on soils that are less productive for farming but to be supported, private community wastewater treatment systems may be required. Because the preservation of natural features and wildlife habitat (rural character) are high priorities in this planning area, the approval of cluster developments within the Very Low-Density Residential Planning District will, however, be predicated upon their effectiveness at the preservation of meaningful tracts of open space.
- **Sensitive Environments Overlay.** This overlay designation extends into each of the primary future land use categories. The overlay highlights areas of undeveloped wetlands, floodplains, and other environmentally sensitive lands. The highest concentrations are found along or adjacent to the Kalamazoo and Gun Plain Rivers and tributaries. The overlay is intended to highlight the areas with the greatest need for broad-based regulatory mechanisms and land use management practices geared specifically toward environmental protection.

It is envisioned that by implementing these planning designations through zoning and utility policies and by supporting private, county, and state-level farmland preservation programs, the Township will be able to protect and retain areas within the Township that are most suited for agricultural purposes. In areas where the viability of farms and justification for restrictive farm preservation techniques are not evident, demand for rural residential development at very low gross density will be accommodated in a regulated fashion.

#### Agriculture/Open Space Planning District (AG)

The Agricultural/Open Space Planning District coincides with the AG Agricultural Zoning District, and its boundaries are intended to define the ultimate boundaries of the AG Zoning District. It encompasses approximately thirty-seven percent of the Township's land area. Within these areas, farming operations are promoted as the predominant use. Single-family residential development is permitted on parcels that may be as small as one acre in size, however there are other regulatory factors that may result in smaller gross densities. The AG/OS planning area contains the majority of land that is privately enrolled in the P.A. 116, "Farmland Open Space Preservation Program."

The "Farmland/Development Suitability" analysis found in Chapter 2 gives further insight into the farming and developmental capabilities of the various soils found in Gun Plain Charter Township. The analysis shows that the soils throughout most of the Agriculture/Open Space District also constrain non-farm use and development. The main limitations are poor drainage, wetness, or rapid permeability. All of those factors can contribute to an inability to support conventional on-site septic systems. Many of the Township's productive farmland soils also present significant problems when constructing building foundations, basements, and roads.

Only relatively small areas of the Township's best farming areas are also naturally conducive to supporting septic systems and building structures. Most of those areas are loosely concentrated in the northeast, in sections 4, 5, 6, and 7, in the east in parts of sections 12, 13, and 24, and in more widely scattered areas. Most of those areas have already witnessed a good deal of land fragmentation and rural development and have thus been excluded from the Agriculture/Open Space District.

The recommended mechanisms for achieving the objectives of the Agricultural /Open Space District include:

- Use of Effective Zoning Techniques: The continued use of the Township's existing sliding scale zoning regulations to limit the scale of development and which treat farming and farm-related activities as the primary land use is recommended as the basic zoning tool in this district. Fluctuating market conditions often force farmers to look for alternative sources of income, and many count on the ability to sell off land for non-farm uses to augment finances. This ability is restricted under current zoning. A modest loosening of the restrictions could be achieved by utilizing flexible cluster regulations like those employed in the other districts where residential development is a primary use. If clustering is to be implemented in the AG/OS Planning District (AG Zoning district), stringent buffering parameters and density limits are recommended.
- Another flexible zoning tool that may be considered for eventual implementation is the use of Planned Unit Development provisions that enable farmland located in one area of the Township to be counted as the required open space element of a development located in another part of the Township. This ability for farmers to transfer their development rights is a technique that is only recently available under the state's zoning enabling statutes.
- Voluntary Purchase of Development Rights (PDR) programs. Participation by farmers in State and County Purchase of Development Rights (PDR) programs enables farmers to offer the sale of their development rights to the County and State. This voluntary program will enable some landowners to retain their land for continued farming while receiving cash payments for selling their non-farm development rights. While all lands within the AG/OS Planning District are intended to be eligible for protection under these programs, funding limitations are expected to make the programs competitive in nature. Property that is nearest areas designated for future non-farm development are in theory, at greater risk for development pressures and may be given a higher relative priority for PDR funding. Additional discussion about the Township's PDR policies is included in the discussion on *Voluntary Farmland and Rural Preservation Efforts* found in this Chapter.

Very Low-Density Residential Planning District (R-1)

The intent of this planning district is to establish areas where the overall long-term character remains predominantly rural, regardless of the uses that might occur there. The district corresponds to the R-1 Rural Estate Zoning District. Farming operations will continue, and development will occur in the form of individual lot splits and multi-lot subdivision developments. Care will be taken in the planning and design of the major development to ensure that the site layout will have minimized impacts on adjacent farming operations, natural features, and surrounding properties. This will be accomplished through zoning standards that protect natural features, create appropriate setbacks and buffers along the roadways, and impose minimum open space set-asides.

Zoning district provisions will provide for very low-density, rural estate residential development on large lots or smaller clustered home sites. An area-wide gross density of approximately one unit per five or more acres is intended. Agricultural operations and activities are also envisioned to continue but are not necessarily viewed as long-term or permanent land use.

The Very Low-Density Residential (VLDR) planning district recognizes a category of homebuyers that desire a rural environment in relatively close proximity to urban amenities. At the same time, this land category will encourage the preservation of wetlands, woodlands, and other open spaces, which are useful for water retention, groundwater recharge, and habitat for wildlife. As a basic development option in the VLDR areas, large lot parcel splits will provide adequate area for septic system placement and will create fewer non-farm activities and conflict points next to active farms than if more traditional one or two-acre lots were to be accommodated. Zoning provisions that require clustering smaller home sites as an alternative to large lot zoning will be encouraged. This technique can be more beneficial to the environment; it can help preserve the integrity of neighboring farm operations and preserve rural character.

The factors considered in establishing the general boundaries and locations of the various Very Low-Density Residential District areas include the lack of sewer and water utilities, a close relationship and proximity to active farmland, the existence of soils that are unsuitable to support intensive development due to septic system and building construction limitations and an extensive pattern of rural residential land fragmentation. These factors make the VLDR district unsuitable for intensive development and less suitable for long-term investment in farming than the areas included in the Agricultural/Open Space Planning District.

Recommendations for implementing the open space objectives and one dwelling unit per five-acre density of the VLDR planning district include:

- Continue to rely on existing large lot (5 acres) zoning as the basis for determining the overall density of the district.
- Through flexible open space and PUD standards encourage residential cluster developments.
- Increase the utilization of the cluster subdivision approach and maintain alternative open space/conservation subdivision design standards and procedures that are independent of state-mandated open space preservation requirements.
- Discourage the creation of new subdivision developments unless the development meets clustering (increased net density), common utility, and preserved open space criteria.

#### Voluntary Farmland and Rural Preservation Efforts.

In addition to the regulatory efforts that will be employed by the Township to conserve farmland and rural character within the Agricultural/Open Space district and very Low-Density Residential Districts, there are several ways that property owners can ensure that parcels of land will remain undeveloped or reserved for specific purposes. In doing so, the landowner can obtain potential property tax, income tax, inheritance tax, and/or estate tax benefits, depending on the method. Among the preservation and conservation methods are:

**Land Donations.** A donation of land entails directly transferring property to another party, usually an organization that can keep and maintain the property. It could be a governmental unit such as the County or Township, a land trust, a school, or a nonprofit organization.

**Private deed restrictions.** Voluntary Deed restrictions can be placed on the property deed, which limits or releases certain property rights, such as the right to develop a parcel of land or prohibits the new owner from destroying or modifying natural features.

**Conservation Easements.** A conservation easement is a partial interest in the land that is donated or sold by a landowner to a second or third party, such as a County or Township or a nonprofit organization. The effect is that while the private landowner retains the ownership of some of the rights normally associated with the parcel, some of the rights (such as the development rights) are relinquished to another entity for preservation.

**Farmland and Open Space Preservation Act.** The Farmland and Open Space Preservation Act, commonly referred to as P.A. 116, offers certain income and property tax reductions for landowners willing to agree that their farmland or open space will not be developed for a specified period.

**Purchase of Development Rights (PDR).** Participation in the State and County Purchase of Development Rights (PDR) programs enables farmers to offer the sale of their development rights to the County and State. The voluntary programs enable some landowners to retain their land for continued farming while receiving cash payments for selling their non-farm development rights. Because funding is limited, enrollments are awarded based on a competitive ranking system. The Township's declared support of enrollment applications is critical to the program's local success. To that end, the "Agricultural Preservation District" within Gun Plain Charter Township (as referred to in the Allegan County Farmland Preservation Board's Purchase of Development Rights (PDR) application) is represented by the combined areas of the AG/OS and VLDR planning districts.

There are properties that should not be seriously considered for development rights purchase throughout the Township due to land use patterns, soil and topographic constraints, and other growth factors. The properties having a low probability for consideration are defined as follows:

- Parcels of property not zoned in a district that allows farming as a principal permitted use.
- Parcels of property less than 20 acres in size and not adjacent to another large farm tract. A low-probability parcel may be larger than 20 acres if it exhibits a combination of two or more of the following characteristics:
  1. It is predominated by soils that are generally considered unsuitable for farming due to slope, wetness, or flooding.
  2. It is predominated by woodland and is located in a floodplain area where the introduction of farm practices could threaten surface water quality.
  3. Significant land fragmentation has already isolated the parcel.



Parcels of property that exceed 20 acres, are zoned AG or R-1, and are included within the AG/OS or VLDR planning districts (as shown on the Future Land Use Map), are, therefore, as a matter of Township policy, eligible for inclusion in the PDR program.

### Low-Density Residential (R-2)

The Low-Density Residential (LDR) planning designation facilitates most of the township’s land area to be devoted to single-family residential expansion. LDR is planned to occur north of the City of Plainwell and is also slated for areas east of Plainwell in a wide corridor along M-89 to 4th Street and Silver Creek. Access to these areas is readily available via the major transportation routes.

The LDR planning designation corresponds with the existing R-2 Zoning classification. The category accommodates single-family residential development on parcels of 2.5 acres in area and, through a planned unit development (PUD) option, makes provisions for new residential development on lots with an average density of one dwelling unit per two acres. The predominant housing style within this classification will be single-family homes. Because most residential development is desirable to be close to community services, facilities such as schools, libraries, churches, and parks are also permitted.

- The boundaries of the Low-Density Residential districts are intended to represent the ultimate extent of the land use category within the planning period and take in some areas that are presently zoned AG Agriculture. To avoid leapfrog development, it is recommended to rezone additional land to R-2 Low-Density Residential designation incrementally, based upon justifiable market needs.
- Because public utilities are generally not economically viable at LDR densities, additional R-2 Zoning should not occur unless a careful evaluation of specific soil conditions shows that soils can support the development or that appropriate infrastructure, such as private wastewater collection and treatment systems, will be developed and maintained.
- Paved roads and the capability to provide adequate levels of protective services should also be precursors to R-2 expansions.

### Medium Density Residential (R-3)

This classification is designed to accommodate single-family development at up to 3.5 dwelling units per acre and multi-family residential development at up to 8 dwelling units per acre. The designation corresponds to the R-3 Medium Density Residential zoning district. Also included are elderly housing, nursing homes, and other group housing.

Medium Density Residential areas are located at the perimeter of the City of Plainwell, consistent with the suburban residential pattern within the city limits and where public sewer and water extensions from the city are generally available.

- Improved water and sewer service is necessary to assure long-range public health. Medium Density Residential areas should not be developed until public sewer, water service, and paved roadways are in place.
- MDR areas should be in areas where quick access by fire and police service is possible. Access

to multi-family developments should be from major thoroughfares, but their access should not traverse through single-family neighborhoods.

- High-density development, such as multi-family housing projects, should only occur as part of a special use approval process designed to ensure the appropriateness of the development's timing and specific location. The need and location for alternative Medium Density Residential locations should be re-examined periodically (i.e., every five years) as growth in the Township occurs.
- It is recommended that the current R-3 zoning district provisions be modified to include specific design standards for attached three and four-family units and larger multi-family dwelling complexes.

### Lake Residential (LR)

The Lake Residential area is a medium-density residential district devoted exclusively to single-family residential use and outdoor recreational environment. The Lake Doster Area in the Lake Residential District boasts a public golf course and all the amenities associated with it.

- From a future development standpoint, there is the potential for private owners to one day pursue the conversion of the area's private golf course to a residential development area. The Plan recommends establishing a requirement that such a conversion be authorized and regulated by the Township as a form of Special Land Use or Planned Unit Development. This will enable the Township to establish reasonable density limits designed to avoid overcrowding of the lake environment and the existing neighborhood.

### Manufactured Home Park (R-4)

The Manufactured Home Park designation recognizes and supports the existing parks in section 17, east of the airport, and Section 19, south of Miller road. It also recognizes the undeveloped area in Section 19, west of US-131. Both existing manufactured home communities have the additional ability to expand, and appropriate zoning (R-4) has been afforded for that purpose. It is concluded that with over 220 acres, or over 1% of the total land area devoted to this type of land use, ample provision has been made for this type of housing.

To minimize the adverse effects of leapfrog development, any new manufactured home communities that might be considered should be required to locate with public sewer and public water supplies and close to commercial and public services.

### Commercial Land Use

Commercial establishments typically seek out major streets with high traffic volumes to maximize their visibility and encourage drive-in trade. Unfortunately, when a major street begins to support commercial development, traffic congestion often occurs, and conflicts result between traffic and the vehicles entering and exiting business driveways.

The Master Plan recognizes that demand for various commercial types of development is likely to increase over time. This demand will continue to be greatest along M-89, near the expressway interchanges, and

along 10th Street and Douglas Street, which are secondary arterials into and out of Plainwell. These are the areas where traffic volumes are greatest and where commercial establishments can take advantage of the high traffic volumes and a more concentrated consumer market. It is important to direct this type of development to minimize some of the undesirable effects that additional commercial strip development brings.

**Neighborhood Commercial.** This designation applies to areas intended to support retail and personal service establishments catering to the day-to-day convenience needs of residents in the immediately surrounding residential areas. The areas are generally intended to be developed under zoning provisions outlined under the C-1 Commercial Zoning District contained in the Township Zoning Ordinance. Public sewer and water utilities can be extended to serve these areas. One exception is the small neighborhood commercial node located at Doster Rd. and 106<sup>th</sup> Ave.

A Neighborhood/Business Commercial area situated on the north side of M-89 east of 2<sup>nd</sup> Street exists. It is the Township's intent to work with the property owners to limit the extent and intensity of commercial development in this area and to maintain the overall rural residential character indicated in the Plan.

**General Commercial/Light Industrial.** These areas are intended for a broader range of commercial retail and service activities oriented toward a more regional market and a broader range of customers. The areas are also envisioned to provide a narrow range of light industrial uses, including light assembly and fabrication, warehousing, and truck transport. The areas have good regional access. Commercial land uses range from retail to service establishments that are destination-oriented and drive-by businesses. The areas illustrated are envisioned to be developed under provisions of the C-2 Commercial zoning district.

A zoning adjustment like the recommended C-1 change on the east side of Douglas Avenue in Section 32 is indicated for the existing C-2 Zoning on the west side of Douglas. Zoning adjustments to promote low-density residential development in this corridor are recommended.

### Commercial Development Design Standards

Unless careful site planning and access controls are utilized, conflicts between uses can occur, opportunities for integrated uses are lost, and the capacity of streets can be greatly reduced. It is recommended that site plans and the rezoning of land designated on the Future Land Use Map for commercial purposes be done cautiously. This should help assure that development is not done prematurely or haphazardly, disregarding the lack of utilities, adjacent existing uses, and uses that will develop on an adjoining site later. Implementation of the commercial land use plan should therefore include the following recommendations:

- Encouragement of the use of flexible planned unit development zoning provisions allows the review and approval of proposals incorporating integrated mixed uses, joint access, and alternate access characteristics.

- Knowledgeable use of zoning standards and the site plan review process. The site plan review process should be used to promote land use and transportation objectives and to enhance the quality of site plan features such as:
  1. *Wastewater collection and storm drainage*: Unless public sewer and engineered drainage systems are provided, intensive development should not be permitted, and the potential range of commercial uses should be limited.
  2. *Driveway Location and Spacing*: Driveways should be located as far from street intersections as possible to avoid left-turn conflicts. Businesses should be encouraged to use joint driveways whenever possible. Driveways should be spaced to reduce conflicts and provide gaps in traffic for safer ingress and egress. Commercial parcels on arterial streets should have a minimum of 200 feet of street frontage to promote adequate driveway spacing.
  3. *Landscaping*: Commercial Development should provide landscaping along the street edge to enhance aesthetics and screen parking areas. Specific landscaping requirements should be maintained in the zoning ordinance to ensure adequate and uniform landscape treatment among businesses.
  4. *Alternate Access*: Wherever possible, a secondary means of ingress and/or egress should be provided. For corner parcels, alternate access could take the form of access to an intersecting street. Interior parcels, access across adjacent parking lots, access to another street to the rear of the property, a frontage road, or service drive parallel to a major street are all desired alternatives.
  5. *Signs*: The number, size, and location of signs are controlled by Township ordinance and kept to a reasonable minimum to avoid motorist confusion and to ensure individual business identities.
  6. *Pedestrian Access*: Where appropriate, crosswalks and sidewalks or pathways should be provided to link businesses with each other and to residential areas.

Sensitive Environment Overlay District

The Sensitive Environment Overlay District outlines environmentally sensitive areas such as water courses and wetlands. The effort to protect the rivers, streams, and wetlands is part of a regional watershed planning effort to protect and improve surface water quality in general. The overlay is intended to highlight areas where there is a need for a greater measure of protection for these important natural features.

The designation gives policy support to the “Greenbelt Overlay District” outlined in the zoning ordinance and applied to the land closest to the Township’s watercourses and Lake Doster. It is also used to identify areas where similar protections might be extended to cover designated wetlands and the areas that are best left as a buffer between structural development and harmful surface disruption practices.

When implemented, “green belt buffers” are a simple regulatory tool that can effectively achieve water quality objectives. Extensive removal of natural ground cover and clear-cutting trees within the

designated buffer is discouraged. Structures and development activities will be encouraged to be setback a minimum distance from the high-water mark and contiguous wetland areas.

Implementation measures also include the adoption of local wetland protection ordinances and relying on the overlay as a factor in reviewing and authorizing development projects required to have open space set-asides. Farmers affected will generally be exempt from the zoning regulations, but implementation measures will also include educational efforts to encourage farmers to use best management practices near watercourses.

Public/Semi-Public (Various Zoning Districts)

This category includes areas and facilities such as schools, government buildings, parks, and golf courses which are available for use by the general public. Semi-public uses are those used by a limited number of people with specific interests, which are generally non-profit in nature, such as churches, non-public schools, private golf courses, and medical or institutional facilities. The Plan recognizes that it is necessary to provide for the establishment of certain non-residential land uses within residential areas subject to the implementation of measures designed to ensure compatibility. Such non-residential uses commonly include religious and educational institutions, recreational uses such as parks and play fields, and public utility facilities. Traffic generation, noise, lighting, and trespassing should be carefully controlled to mitigate the negative impacts on residential uses. The expansion or location of these uses should depend upon compatibility with adjacent land uses and maintaining the neighborhood character.

The Future Land Use Plan illustrates the major public/semi-public uses in the Township. Included are the public school grounds adjacent to the Kalamazoo River on the southern outskirts of Plainwell and the Michigan Department of Natural Resources land in the flood plain of the river to the south of the school property, all of which is valuable open space.

TRANSPORTATION

All the existing public roads in the Township (except local neighborhood roads) are accommodating more traffic demands than ever. As the Township continues to grow, they will be expected to carry still higher traffic loads during the coming years. The following generalized transportation-related recommendations are intended to address existing problems and avoid problems in the future:

- Development along arterial and collector roads, especially access by individual driveways, should be limited. New subdivision roads (both public and private) accessing the collectors and arterial roads should be planned for interconnectivity and reviewed for safe sight distance, proper acceleration, deceleration lane tapers, and any left-hand turn problems that may occur.
- Establish road improvement priorities. Through cooperation with the Allegan County Road Commission, monitor traffic volumes and road conditions as part of an ongoing program.
- County can objectively allocate limited resources to areas with the greatest need.
- Consider the ability of existing roadways to handle projected traffic volumes resulting from new development when reviewing rezoning requests, special land uses, and PUDs.

- Implement the Land Use Recommendations. This document contains specific land use recommendations which have considered the adequacy of the existing roadway system. Taken collectively, the incremental implementation of the various land use proposals could minimize the need for some road improvements over the long term.
- Enforce private road regulations. The interconnectivity of the street network should be analyzed before the authorization of new private streets. The Township should reserve the right to require private street interconnectivity and/or the creation of a public street where the logical extension of a public street or interconnectivity of streets is judged necessary to maintaining the safety and capacity of that nearby collector and arterial streets.

The problems of strip commercial development have been well-documented over the years. A multitude of commercial uses, each with its own driveway or driveways, creates traffic congestion problems and turning movement problems and increases the likelihood of accidents. Apart from a recommended geographic allocation of land uses in response to existing and preferred development patterns, the Plan recognizes the need for access control measures along the M-89 corridor and other primary arterials. The following recommendations are geared toward those concerns.

**Access Controls.** Access control standards have been adopted to regulate and coordinate access to undeveloped land along the Township's major roads. These standards will address such items as driveway placement, width, and number; acceleration and deceleration lanes; driveway distance from intersections; joint driveways; frontage roads and service drives; and pedestrian movement.

**Sub-area Plan.** The development and redevelopment of commercial and residential parcels should be actively controlled through the continued use of site plan review and special land use approval processes. To better guide the development of the M-89 corridor, additional traffic and land use analysis could be undertaken to better define and resolve traffic problems. A sub-area plan would be a detailed study of land use, traffic movement, access control, landscaping, and pedestrian movement. Along with traffic management improvement recommendations, the sub-area plan could make more specific recommendations for future redevelopment and infill.

### Designated Bicycle Routes

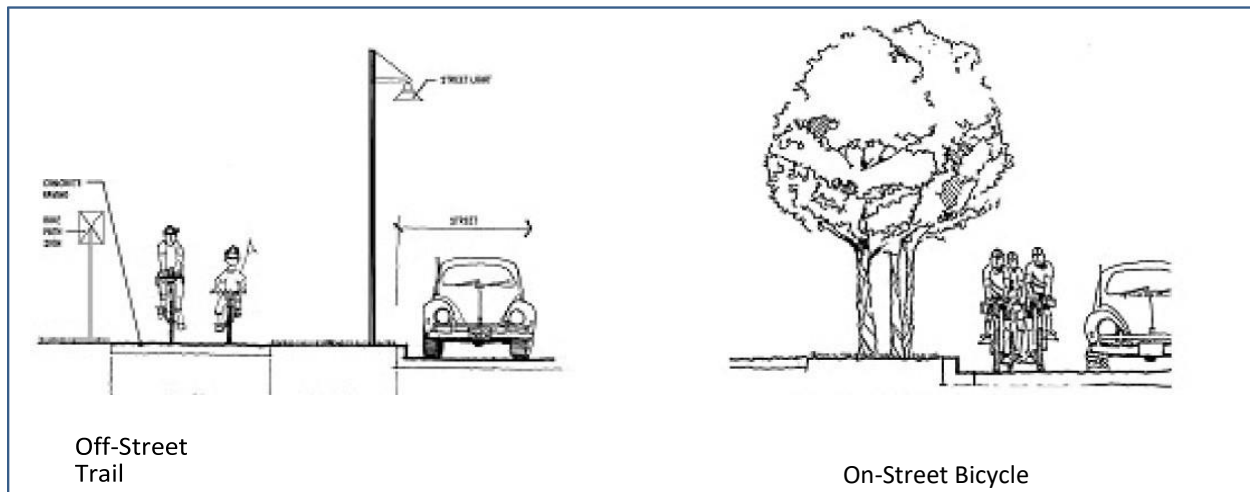
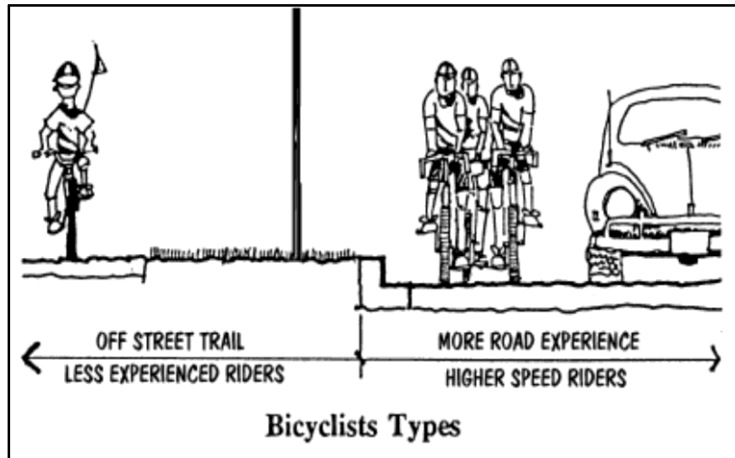
From a bicycle trail design and engineering point of view, cyclists fall into two broad categories.

*Type I-Recreational Cyclists:* Novice or occasional riders -These cyclists tend to ride at slower speeds. Generally, they have less road experience and avoid automobile traffic because they fear being hit by a car. Slower speed riders prefer residential streets and off-street trails.

*Type II- Serious Cyclists:* Experienced and frequent riders -The second category of cyclists is typically the higher-speed riders. They generally have more road experience and, thus, are more willing to ride on most streets in heavier vehicular traffic. The higher-speed riders, like the first group, choose the roads less traveled when they have a choice but will use the major roads when necessary to get where they want to go.

Routes for the faster riders require stricter design criteria, but those criteria also meet the needs of the slower riders. Riders traveling at higher speeds will increase the trail's accident potential, so the one trail fits all is hard to accomplish.

The off-street trail is still typically within the street right-of-way and is basically an extra-wide sidewalk designed to accommodate the higher travel speeds of cyclists and skaters. These trails are typically 6'-12' wide and are, when available, separated from vehicular traffic by several feet of right-of-way, preferably at least 6 feet. They are not always parallel to the curb but can meander around existing trees and landforms to give interest and variety to the walking or riding experience. These trails usually connect residential neighborhoods to neighborhood centers, retail, schools, and parks.



### On Street Bicycle Route Criteria

The selection of routes to be used as designated bicycle routes should be based on the following criteria:

- Interconnection with existing trails and sidewalks within and ending at the municipal boundary.

- Location of governmental and educational centers including schools, Township Halls, Public Library, Post Office, Museum, etc.
- Locations of local churches.
- Locations of existing and future parks.
- Location of retail.
- The condition and design of existing streets.
- Truck routes.
- Avoiding dead-end routes. Loops are the optimum configuration.

Implementation considerations for the creation of On-street bicycle routes include:

- Bike route signage should be used to identify bike routes.
- The roadway should be restriped to provide a wider outside lane for bicycle traffic. The restriping should occur if the restriped traffic lanes are at least 11’ wide, and restriping will allow for at least 1.5’ of additional lane width in the outside lane.
- Prohibition of on-street parking may be necessary to complete certain on-street bike route segments.

Where the street width is too narrow to accommodate two on-street bicycle lanes on the route, consideration should be given to the widening of sidewalks to at least 6 feet to create an off-street trail segment on at least one side of the street.

Airport Overlay District

Included in the Future Land Use Plan is an overlay area that represents the outermost extent of the various “accident safety zones” that the FAA has assigned to the Plainwell Municipal Airport. These Runway Protection Zones (RPZs) are established to identify the land areas below aircraft approach paths and to prevent the creation of airport hazards (or make them worse), and the development of land uses that are incompatible with airport operations. Including the Airport Overlay on the FLUM map to highlight the areas where land uses incompatible with the airport should be avoided. The detailed land use recommendations for development within the airport overlay, as provided by the FAA, are provided in the appendix.

It should be noted that much of the airport’s surroundings have already been zoned and developed in ways that would be classified as contrary to the FAA’s recommendations. While the Township is not obligated to make corrective changes to existing zoning, the Township is not permitted to make future land use decisions that will further erode the airport’s safety and viability. The following general land use recommendations are included in that respect:

- Consider the adoption of an Airport Overlay Zoning District that identifies maximum height limitations and regulates sight hazards such as bright or flashing lights.



- The underlying planning districts shown on the Future Land Use Map provide guidance for either maintaining the status quo or improving zoning compatibility near the airport. As required by the Zoning Enabling Act, any zoning change or other zoning approval (such as for special use) that will allow an increase in human activity or an increase in residential development density over what is presently permitted by right under current zoning must be avoided.

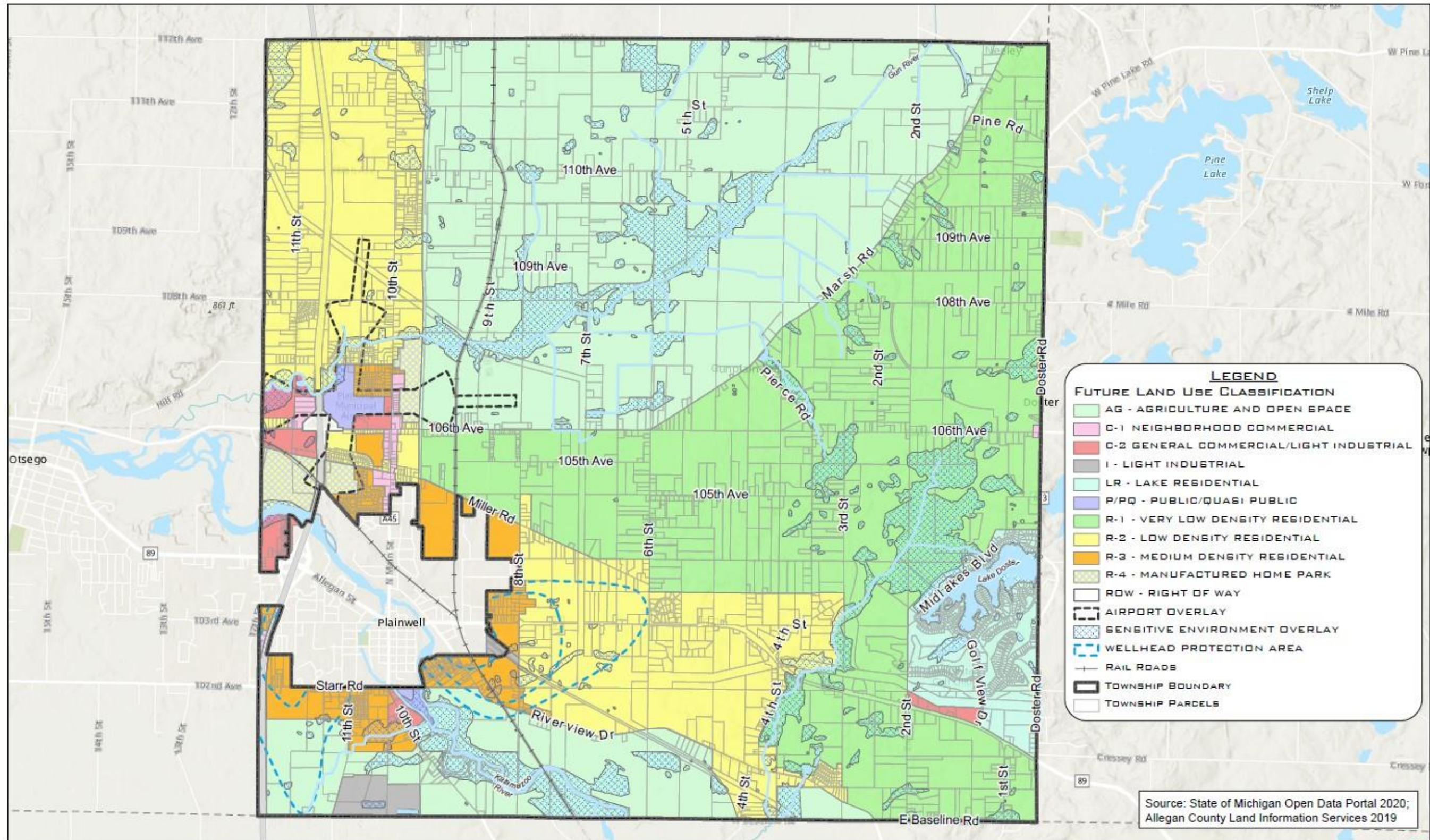
Future Land Use - Build-Out Projections

Based on the gross acreage of each Future Land Use category described previously, the following analysis of potential future residential development is provided. The analysis gives a generalized picture of potential population and density patterns based on the Future Land Use Map. Based on the current estimate of about 2.7 persons/household, if all areas of the Township were to become developed by the Future Land Use Map, a build-out population of about 28,566 persons would be achieved. This is a very rough estimate based on a relatively high average number of persons per household and a conservative estimate of maximum housing units.

Table 19.  
**Future Land Use Category Acres and Dwelling Unit Build-out**

Future Land Use	Total Acreage (Built and vacant acres)	Maximum number of Dwelling Units
<b>Agriculture/Open Space</b> (1 du/25 acres)	7,258	290
<b>Very Low-Density Residential</b> (1 du/5 acres)	6,458	1,291
<b>Low Density Residential</b> (1 du/2 acres)	4,636	2,318
<b>Medium Density Residential</b> (3.5 to 8 du/1 acre/average of 5 du/acre)	856	4,280
<b>Lake Residential</b> (1.5 du/acre)	560	840
<b>Manufacture Home Park</b> (7 du/acre)	223	1561
<b>Other land uses</b> (incl. roads, water, industrial, commercial, airport, institutional and utilities)	1,957	N/A
<b>Total Acres</b>	21,948	
<b>Adjusted Total</b> (Adjusted for other land uses)	<b>19,991</b>	<b>10,580</b>

At an average growth rate of 1.0% per year, the build-out would occur in approximately 150 years. For comparison purposes, the average annual growth rate for the Township between 1970 and 2000 was 1.7%. At that rate of growth, the build-out could occur in about 90 years or just after the turn of the next century.



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## Chapter 8 - IMPLEMENTATION

### Overview

The following section presents tools, techniques, and actions community leaders, Boards and Commissions, Township Administration, and the public can use to implement the Master Plan. The techniques can be used individually or in tandem to achieve the objectives and, eventually, the overall goals of the Land Use Plan. While the direct impact of some techniques cannot be immediately assessed, over time, these procedures can effectively guide land use and development in Gun Plain Charter Township.

### Survey Alignment

While the community survey did not reveal any major changes, it did support many of the initiatives noted in the 2015 Master Plan Update. It is important, however, to consider the survey results and what actions can be taken to implement the Master Plan.

*Table 20.*  
**Survey Results and Associated Planning Actions**

Number	Category	Question	General Responses	Actions
Q1	Planning	[What is] your view about growth in the Township?	The community strongly supports (76%) planned growth.	Continue to use the Master Plan as a guide and support zoning decisions.
Q2	Housing	Respond to questions and statements regarding housing in the Township.	General agreement that the mix of housing meets current needs.	No action is required.
			Most respondents indicated that accessory dwellings (second housing unit) should be allowed.	Consider amending the zoning ordinance to allow for accessory dwellings.
			Most respondents indicated "Tiny Houses" should be allowed only in an R-4 District if they are constructed on a permanent foundation and connected to utilities.	Amend the zoning ordinance to allow for "Tiny Houses" - define and make a permitted use in the R-4 District.

Number	Category	Question	General Responses	Actions
Q3	Economy	[What is] your opinion regarding the economy of the Township?	Favor expanding Commercial/Business Zoning Districts to promote growth	Work with area economic development groups such as the Allegan County Economic Development Commission and the Otsego-Plainwell Chamber of Commerce to identify support and incentive opportunities for both existing businesses and attracting new businesses to the Township.
			Encourage existing businesses to grow to provide more employment opportunities.	
Q4	Marijuana	The Township should consider allowing marijuana businesses.	60% Most respondents oppose allowing marijuana businesses	No action is required.
Q5		What types of marijuana businesses should be considered?	Types of businesses are not applicable since respondents oppose allowing any marijuana businesses	
Q6	Open Space	Which of the following terms best describes "Open Space" to you?	Forests, Farmland, and Scenic Views are most identified as "Open Space"	No action is required.
Q13	Open Space	To preserve Open Spaces, I would contribute by increased taxes or a special assessment/millage rate.	Most respondents would not want to contribute.	

Number	Category	Question	General Responses	Actions
Q7	Growth Management	I support careful management of growth, even if it means more regulation.	Majority support growth management even if it means more regulation	Take the following actions: <ul style="list-style-type: none"> <li>· Have the FLUM define preferred areas of growth</li> <li>· Revise the Zoning Ordinance to reflect desired standards for growth in those areas.</li> </ul>
Q10	Growth Management	The Township should promote slowing the conversion of farmland to other uses.	Most respondents support slowing the conversion of farmland to other uses (Ag preservation)	
Q9	Bike Trails	The Township should promote the creation of bike trails.	Strong support for the creation of bike trails	Take the following actions: <ul style="list-style-type: none"> <li>· Develop a Township Bike/Trail Plan</li> <li>· Consider options for connection with the Kal-Haven Trail</li> <li>· Investigate funding options, including ARP, USDA, DNR grants, trail naming, etc.</li> <li>· Pave road shoulders</li> </ul>
Q11	Ag Tourism	Tourist and event activities should be allowed on ag/farmland (Ag tourism).	Most respondents support Ag Tourism	Amend the zoning ordinance to reflect allowing Ag Tourism activities and associated standards.
Q12	Ag Tourism	The Township should have an outdoor gathering ordinance with a maximum of 500 persons.	Respondents were almost evenly split between those favoring, opposing, or not expressing an opinion	
Q14-17	Township Services	Police Protection	On average a majority of those responding believe these Township services are adequate.	Township to continue to support the provision of these services and levy.
		Emergency Medical Services		
		Fire Services		
		Road Maintenance		

Number	Category	Question	General Responses	Actions
Q18		There should be a continued 2 mil levy for maintaining local roads.	2/3rds of those responding favor continuing the 2 mil levy.	
Q19		Internet service is adequate	Most respondents disagree or strongly disagree that Internet service is adequate	Work with Allegan County to determine opportunities to expand Internet service.
Q20		Expanded Internet service should be funded through a special assessment.	More respondents disagree.	No action is required.

General Implementation Actions

The following are general implementation actions to be taken by Gun Plain Charter Township>

Zoning Ordinance

The Zoning Ordinance is the Township’s primary regulatory tool to implement the Land Use Plan. Districts are established through zoning to regulate the use of land and buildings, their height and bulk, the proportion of the lot that may be covered by them, and the density of development. Zoning regulation assists in the orderly development and growth of the community. In addition, zoning is used to protect property values and investments. Because of the direct impact zoning has on the use of land and related services, a direct relationship must exist between the Master Plan and the Zoning Ordinance.

Land use classifications on the Future Land Use Map and the corresponding land use category descriptions in the text of the Master Plan provide the basis for evaluating future zoning amendments, decisions initiated by the Planning Commission, or rezoning requests presented by petitioners.

Given the recommendations in the Master Plan for the various agricultural, residential, commercial, and industrial areas, and in recognition of the ever-evolving number of zoning tools that are available, the Township should undergo a technical review of the Zoning Ordinance soon after the adoption of the Master Plan. A summary of the recommended changes to implement various planning concepts is included in the following table.

Beyond this initial review and the recommended changes, there should also be periodic review of the Zoning Ordinance to ensure that it continues to satisfy the goals and objectives of this Plan and meet the Community’s vision. Site plan review and special land use and PUD approval standards should be maintained to ensure they stay current with the community’s objectives. Similarly, the Township Zoning Map should also be consistently reviewed and updated as necessary to reflect changes in the Community consistent with the future land use plan. This is typically done on an annual basis.



### Rezoning

A review of the Zoning Map should be conducted to determine consistency with the Future Land Use Map. While the two will never be the same, it should be evident that the Zoning Map will move the Township closer to the vision presented in the Future Land Use Plan Map. Therefore, properties at a higher intensity or density than designated on the Future Land Use Plan are of particular concern. Rezoning these properties prevents a vacant lot from being developed or property being redeveloped in a manner that is no longer consistent with the Townships' vision.

### Subdivision and Planned Unit Development Regulations

Land division regulations are an important tool for the implementation of this Plan. The Township has regulations to cover all of the various forms of land division – land divisions, subdivisions, and site condominiums, and planned unit developments. These regulations should be upgraded as needed to best ensure the implementation of evolving utility policies and to complement new zoning techniques such as PUD Districts and Cluster Developments to ensure that the Township has the best tools available for bringing about the vision and intent of the Master Plan

### Prepare and Adopt the Capital Improvements Program

Capital Improvements Programming is a major step in a comprehensive management system designed to regulate priorities and programs toward community goals and objectives. It is a means of planning ahead for funding and implementing utility extensions and land acquisition activities. The typical CIP is six years in length and updated yearly. The first year of each CIP contains the capital improvement budget. The program generally includes a survey of the long-range needs of the entire governmental unit covering major planned projects along with their expected cost and priority. The Township Board then analyzes the project's financing options and the interrelationship between projects. Finally, a project schedule is developed. Priority projects are included in the Capital Improvements Program. Low-priority projects may be retained in a Capital Improvements Schedule, which may cover as long as 20 years.

The CIP is useful to the Township, private utilities, citizens, and investors since it allows the coordination of activities and provides the general public with a view of future expectations.

### Utility Plans and Policies

Policies that regulate wastewater collection, domestic water supply, and distribution are an important growth management tool and are vital to the protection of surface and groundwater and, ultimately to public health. The Township must continue to work with the City of Plainwell to provide residents and businesses in the urbanizing areas of the township with an adequate supply of domestic water and wastewater treatment capacity. It is recommended that the Township adopt the necessary plans and policies that ensure that major new developments are served by these utilities. In rural areas where densities will not make public water and sewer extensions economically viable, Township policies should be implemented to address the development of private community systems serving cluster developments. Township policies should ensure their long-range financial viability, establish minimum uniform construction standards and require ongoing inspections and maintenance.

### Recreation Plan

The Master Plan recommends that the Township prepare and maintain a recreation plan to be eligible for State recreation funding programs such as the Land and Water Conservation Fund and Michigan Department of Natural Resources Trust Fund. Assistance under these programs is available for planning,

acquiring land, and developing a wide range of outdoor recreation areas and facilities. The programs are administered by the Michigan Department of Natural Resources and are financed by funds appropriated by the Federal Government and State Legislature. Under the LWCF program, grants of up to 50% of the cost of a project are available; under the MNRTF Program, 100% funding may be obtained.

#### Planning Education

Planning Commissions should attend planning seminars to keep themselves informed of planning issues and learn how to better carry out their duties and responsibilities as Planning Commissioners. These seminars are regularly sponsored by the Michigan Association of Planners (MAP), the Michigan Township Association (MTA), and the MSU Cooperative Extension Program, which are valuable resources for Planning Commissions. There are also several planning publications that are useful information tools for the Planning Commissioners.

#### Inter-Governmental Cooperation

Inter-governmental cooperation on certain land use issues and utility issues can pay dividends to all involved. In an effort to manage growth properly, the Township desires to establish goals and regulations consistent with those of its neighbors so that the immediate area develops in a compatible, efficient manner, without over-development. Consequently, Gun Plain Charter Township hopes to minimize incompatible land uses across municipal boundaries and to manage growth in such a way that the strengths of each community are taken advantage of, and that competition between communities for tax base and economic development dollars is minimized. Implementing programs or policies resulting from this strategy will necessitate endorsement and support from all jurisdictions involved. This activity must be ongoing.

#### Public Information

It is important that the proposals of this Plan be discussed and understood by the citizens of Gun Plain Charter Township. Acceptance of this Plan by the public is essential to its successful implementation. Steps should be taken to make Township residents aware of this Plan and the continuing activities of the Planning Commission. This can be accomplished through newspaper reports of Planning Commission activity. Contact with the local homeowner and lake associations and service organizations is another method that can be used to promote the Township's planning activities and objectives

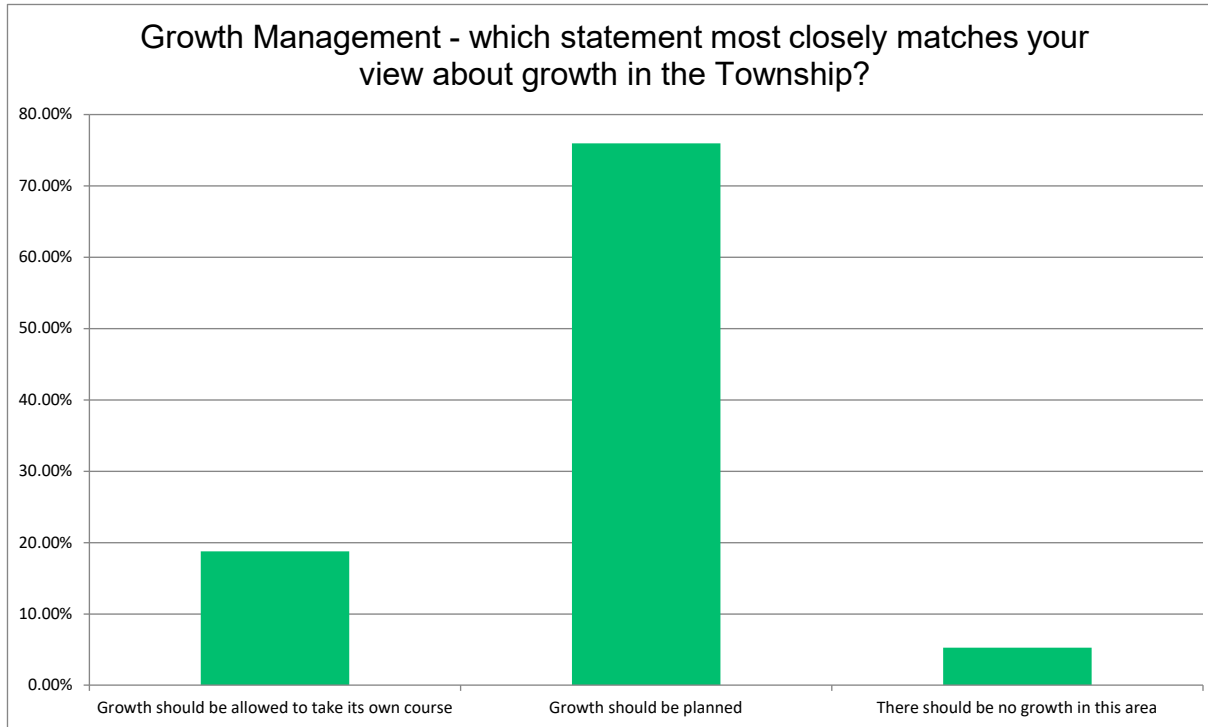
Appendix A – Survey Results

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Gun Plain Charter Township Master Plan Survey

**Q1. Growth Management - which statement most closely matches your view about growth in the Township?**

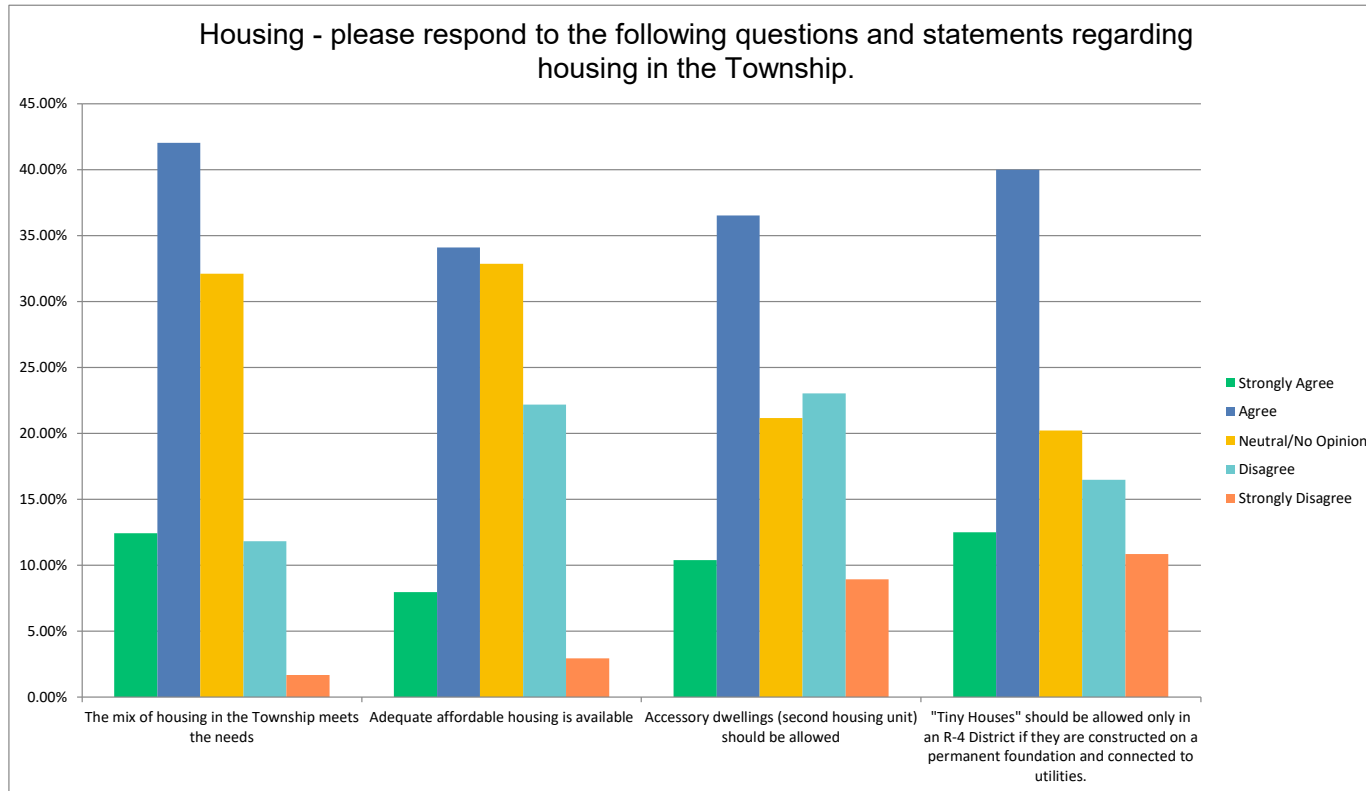
Answer Choices	Responses	
Growth should be allowed to take its own course	18.78%	89
Growth should be planned	75.95%	360
There should be no growth in this area	5.27%	25
	<b>Answered</b>	<b>474</b>
	<b>Skipped</b>	<b>16</b>



Gun Plain Charter Township Master Plan Survey

**Q2. Housing - please respond to the following questions and statements regarding housing in the Township.**

	Strongly Agree	Agree	Neutral/No Opinion	Disagree	Strongly Disagree	Total					
The mix of housing in the Township meets the needs	12.42%	60	42.03%	203	32.09%	155	11.80%	57	1.66%	8	483
Adequate affordable housing is available	7.95%	38	34.10%	163	32.85%	157	22.18%	106	2.93%	14	478
Accessory dwellings (second housing unit) should be allowed	10.37%	50	36.51%	176	21.16%	102	23.03%	111	8.92%	43	482
"Tiny Houses" should be allowed only in an R-4 District if they are constructed on a permanent foundation and connected to utilities.	12.50%	60	40.00%	192	20.21%	97	16.46%	79	10.83%	52	480
Other housing issues the Township should consider.											58
											487
											3

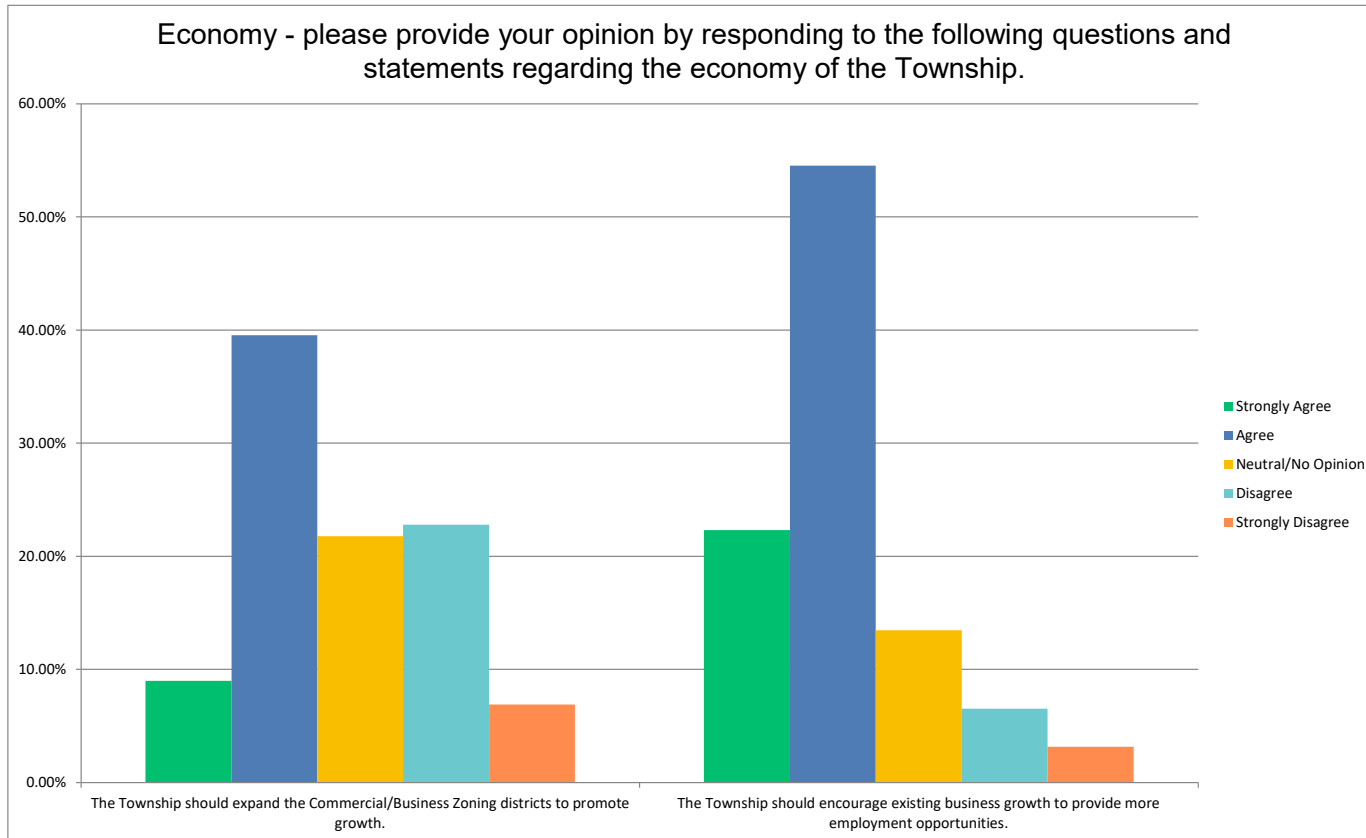


Gun Plain Charter Township Master Plan Survey

**Q3. Economy - please provide your opinion by responding to the following questions and statements regarding the economy of the Township.**

	Strongly Agree	Agree	Neutral/No Opinion	Disagree	Strongly Disagree	Total
The Township should expand the Commercial/Business Zoning districts to promote growth.	9.00% 43	39.54% 189	21.76% 104	22.80% 109	6.90% 33	478
The Township should encourage existing business growth to provide more employment opportunities.	22.32% 106	54.53% 259	13.47% 64	6.53% 31	3.16% 15	475

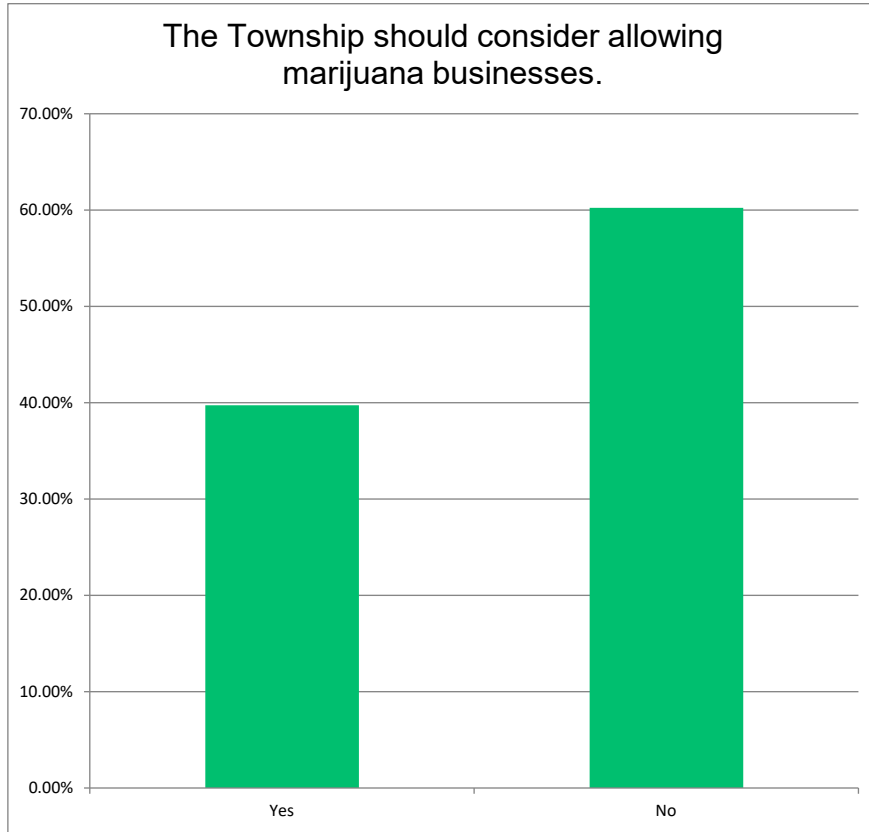
Answered 483  
Skipped 7



Gun Plain Charter Township Master Plan Survey

**Q4. The Township should consider allowing marijuana businesses.**

Answer Choices	Responses	
Yes	39.75%	192
No	60.25%	291
<b>Answered</b>		<b>483</b>
<b>Skipped</b>		<b>7</b>

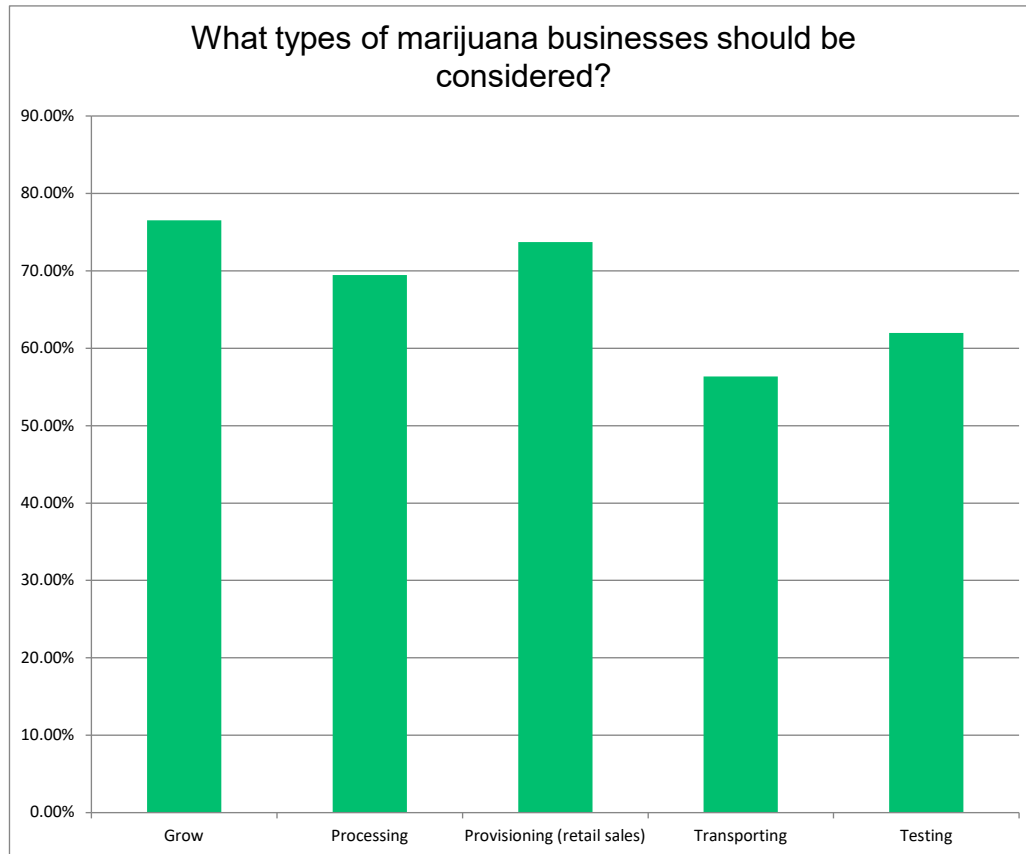




Gun Plain Charter Township Master Plan Survey

**Q5. What types of marijuana businesses should be considered?**

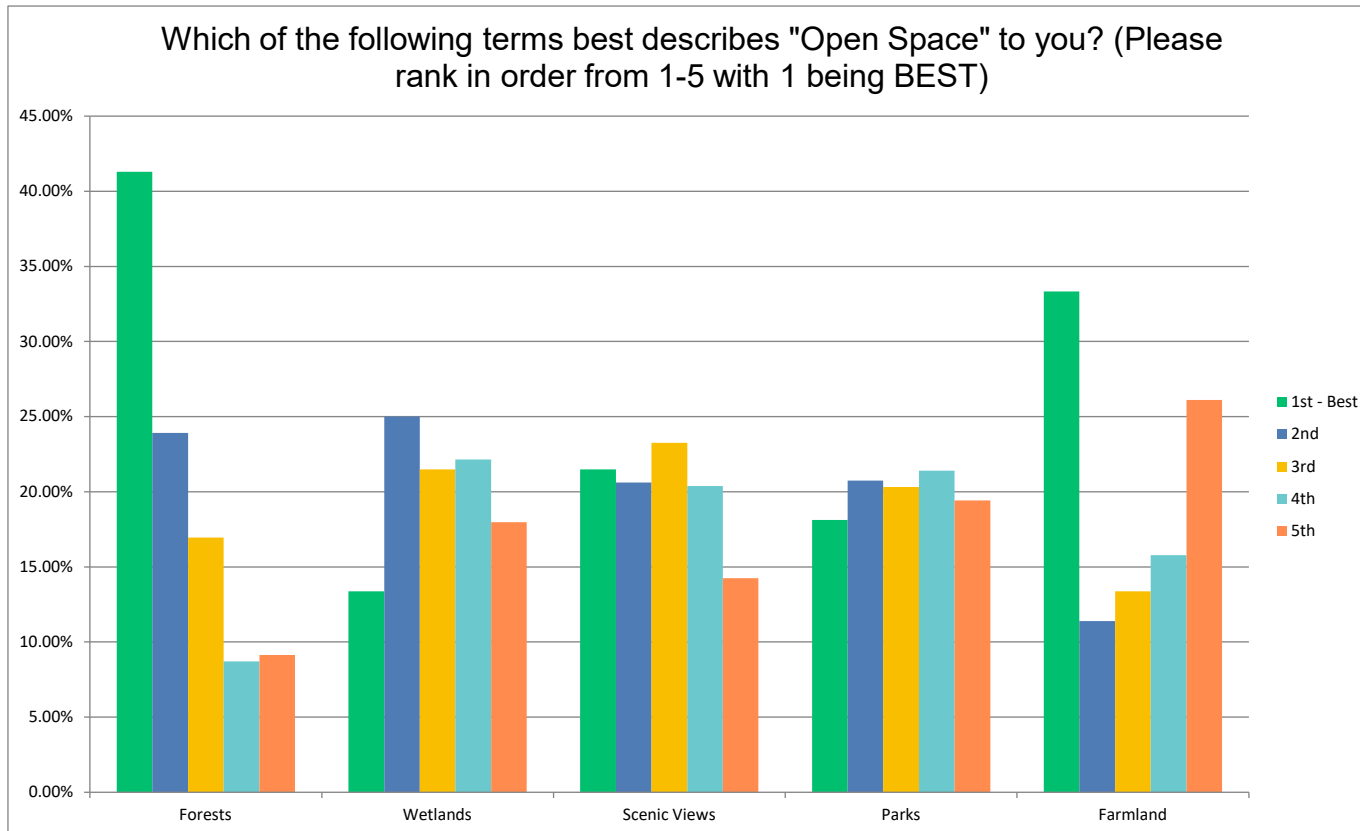
Answer Choices	Responses	
Grow	76.53%	163
Processing	69.48%	148
Provisioning (retail sales)	73.71%	157
Transporting	56.34%	120
Testing	61.97%	132
	<b>Answered</b>	<b>213</b>
	<b>Skipped</b>	<b>277</b>



Gun Plain Charter Township Master Plan Survey

**Q6. Which of the following terms best describes "Open Space" to you? (Please rank in order from 1-5 with 1 being BEST)**

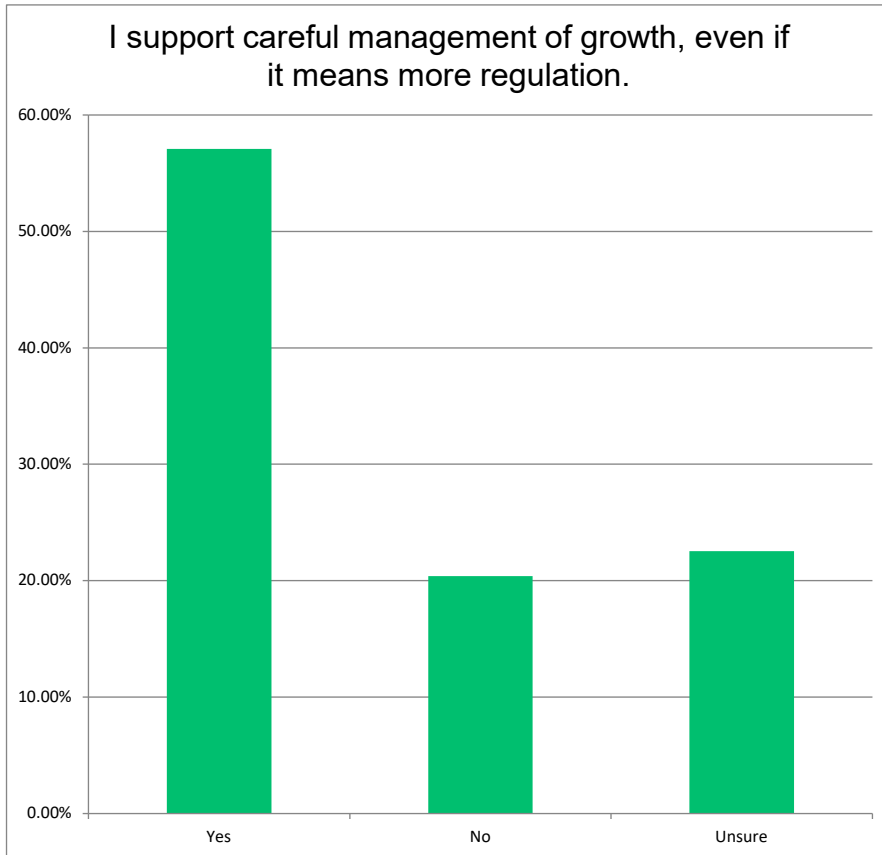
	1st - Best	2nd	3rd	4th	5th	Total					
Forests	41.30%	190	23.91%	110	16.96%	78	8.70%	40	9.13%	42	460
Wetlands	13.38%	61	25.00%	114	21.49%	98	22.15%	101	17.98%	82	456
Scenic Views	21.49%	98	20.61%	94	23.25%	106	20.39%	93	14.25%	65	456
Parks	18.12%	83	20.74%	95	20.31%	93	21.40%	98	19.43%	89	458
Farmland	33.33%	152	11.40%	52	13.38%	61	15.79%	72	26.10%	119	456
										<b>Answered</b>	<b>464</b>
										<b>Skipped</b>	<b>26</b>



Gun Plain Charter Township Master Plan Survey

**Q7. I support careful management of growth, even if it means more regulation.**

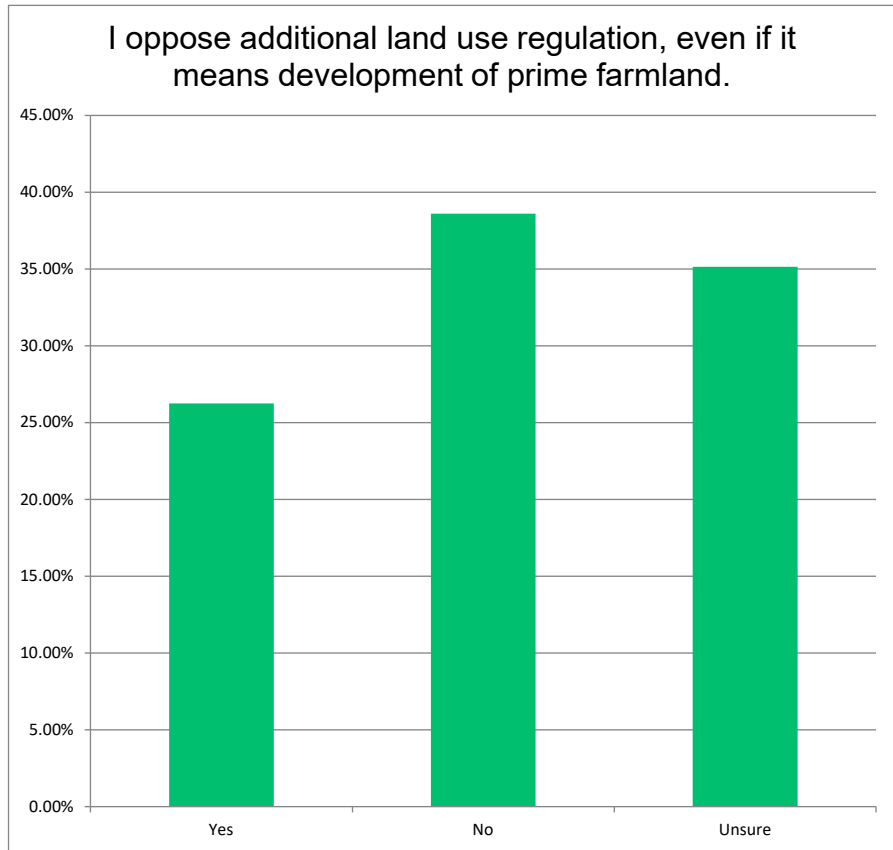
Answer Choices	Responses	
Yes	57.08%	266
No	20.39%	95
Unsure	22.53%	105
Comments:		58
	<b>Answered</b>	<b>466</b>
	<b>Skipped</b>	<b>24</b>



Gun Plain Charter Township Master Plan Survey

**Q8. I oppose additional land use regulation, even if it means development of prime farmland.**

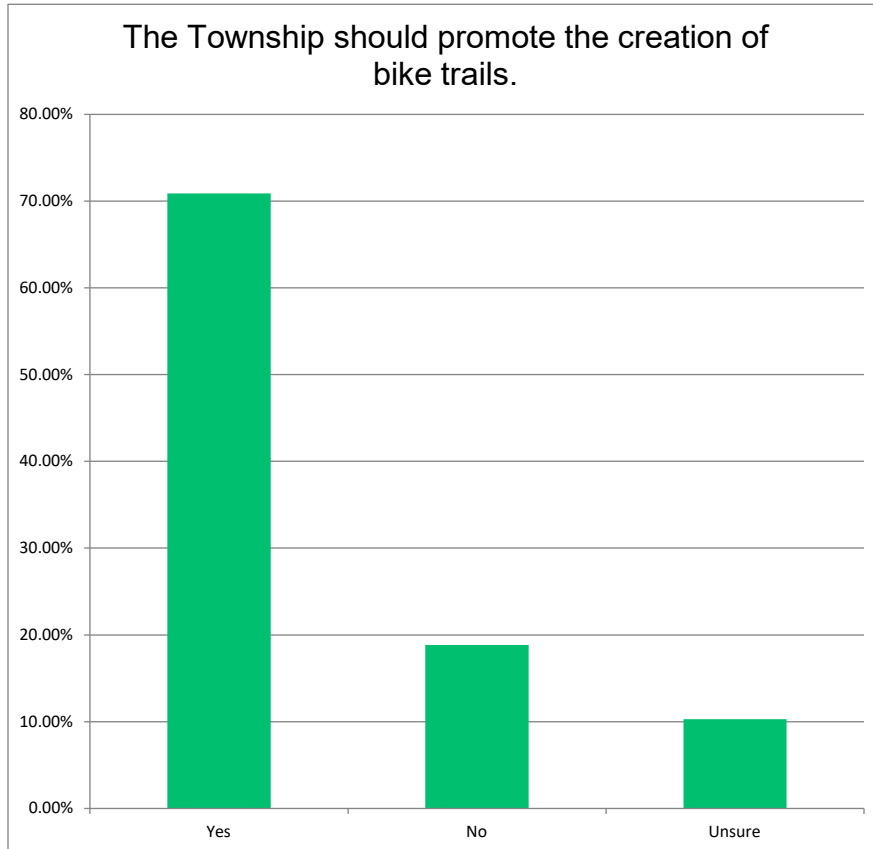
Answer Choices	Responses	
Yes	26.25%	121
No	38.61%	178
Unsure	35.14%	162
Comments:		50
	<b>Answered</b>	<b>461</b>
	<b>Skipped</b>	<b>29</b>



Gun Plain Charter Township Master Plan Survey

**Q9. The Township should promote the creation of bike trails.**

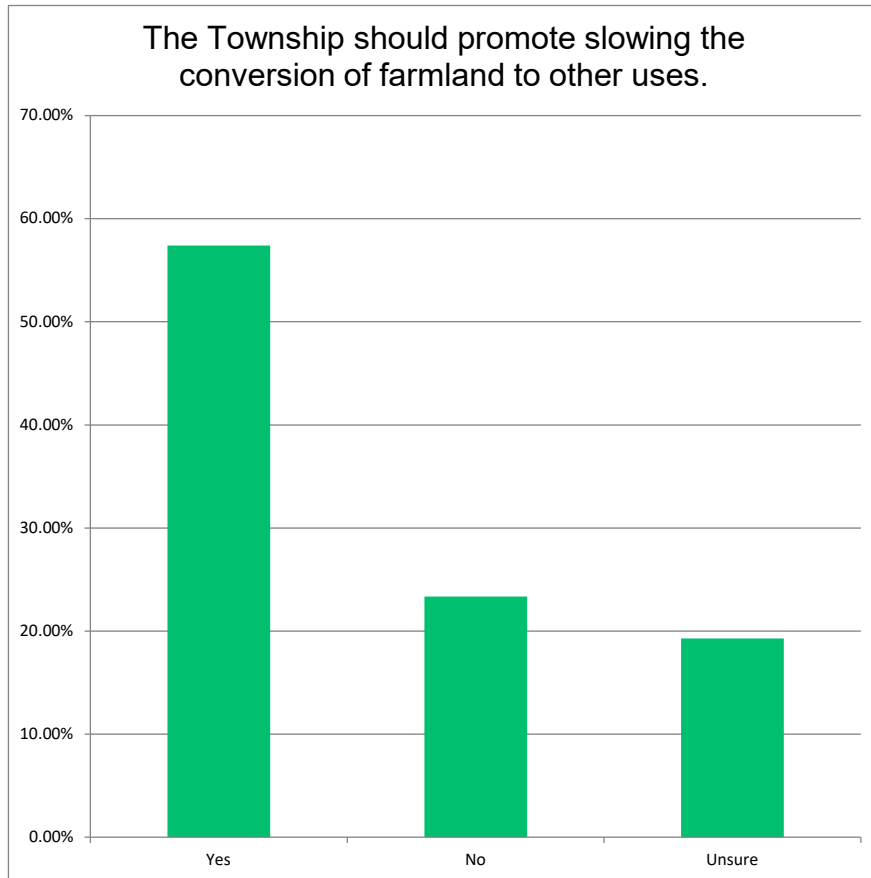
Answer Choices	Responses	
Yes	70.88%	331
No	18.84%	88
Unsure	10.28%	48
Comments:		63
	<b>Answered</b>	<b>467</b>
	<b>Skipped</b>	<b>23</b>



Gun Plain Charter Township Master Plan Survey

**Q10. The Township should promote slowing the conversion of farmland to other uses.**

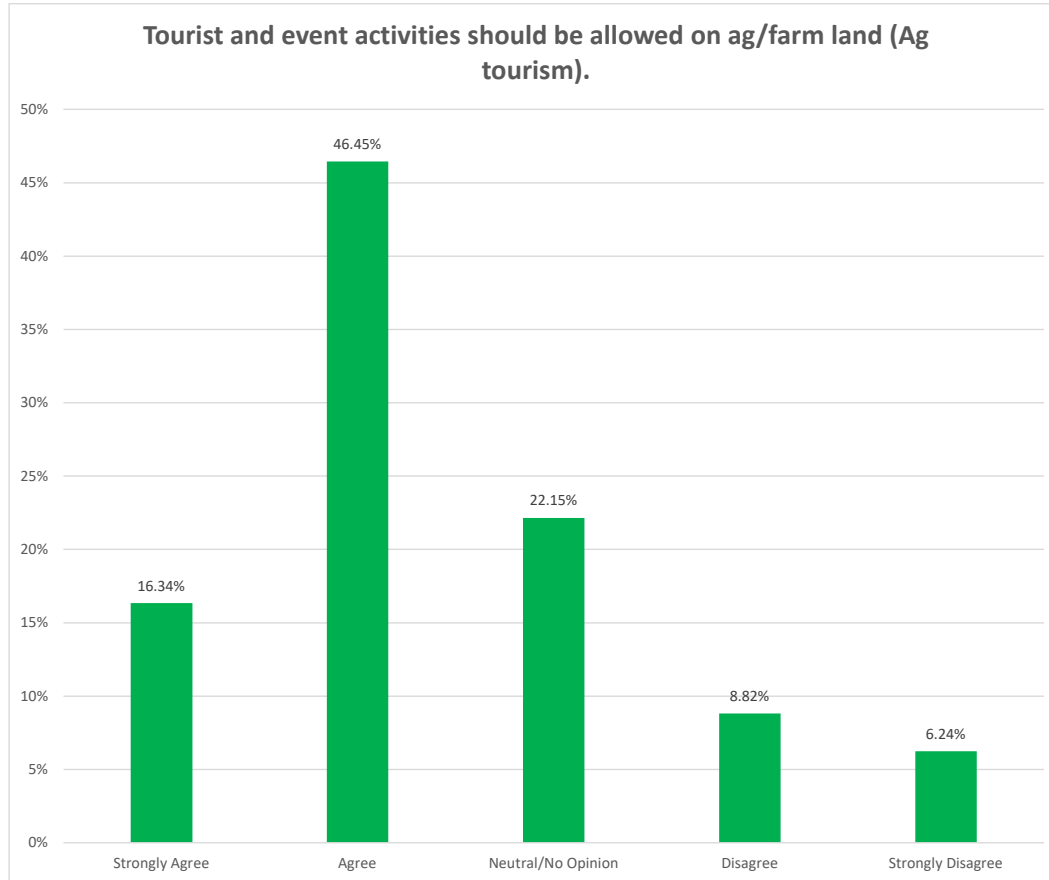
Answer Choices	Responses	
Yes	57.39%	268
No	23.34%	109
Unsure	19.27%	90
Comments:		39
<b>Answered</b>		<b>467</b>
<b>Skipped</b>		<b>23</b>



Gun Plain Charter Township Master Plan Survey

**Q11. Tourist and event activities should be allowed on ag/farm land (Ag tourism).**

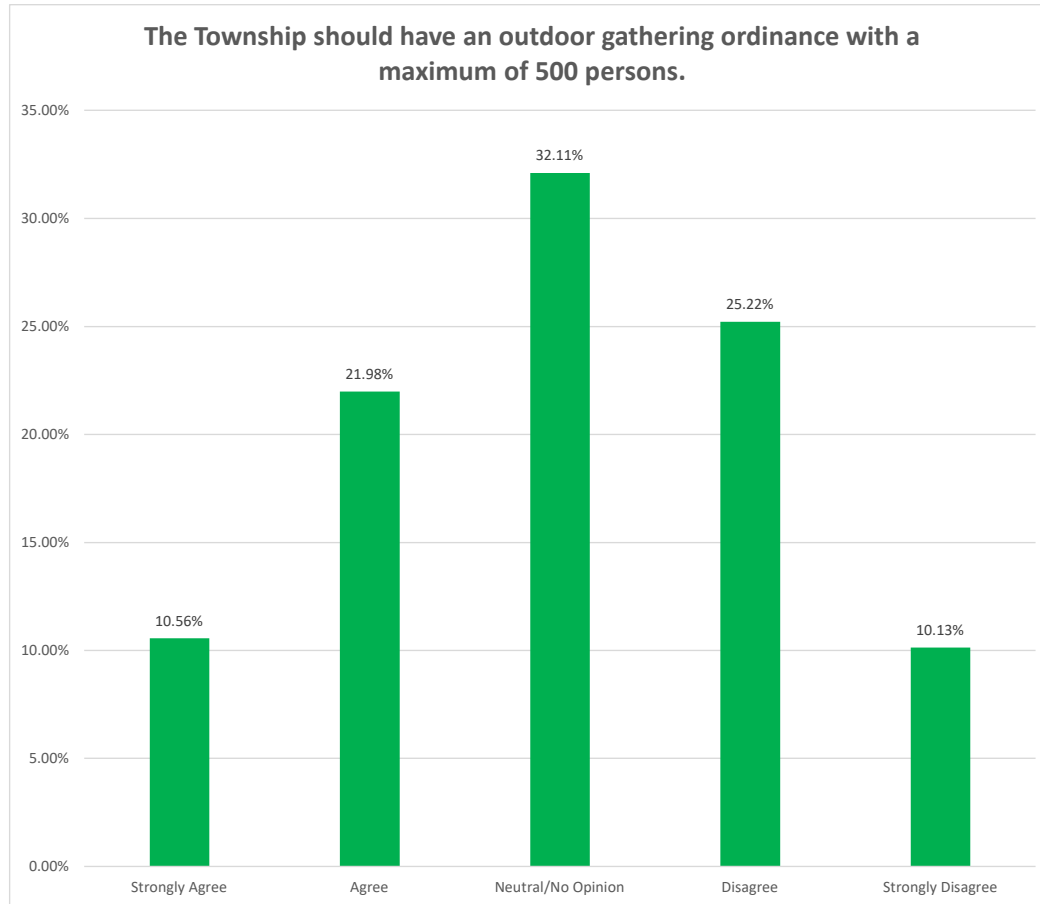
	Strongly Agree	Agree	Neutral/No Opinion	Disagree	Strongly Disagree	Total	Weighted Average
1	16.34%	46.45%	22.15%	8.82%	6.24%	465	2.42
						<b>Answered</b>	<b>465</b>
						<b>Skipped</b>	<b>25</b>



Gun Plain Charter Township Master Plan Survey

**Q12. The Township should have an outdoor gathering ordinance with a maximum of 500 persons.**

	Strongly Agree	Agree	Neutral/No Opinion	Disagree	Strongly Disagree	Total	Weighted Average
1	10.56%	21.98%	32.11%	25.22%	10.13%	464	3.02
	49	102	149	117	47		
	<b>Answered</b>						<b>464</b>
	<b>Skipped</b>						<b>26</b>

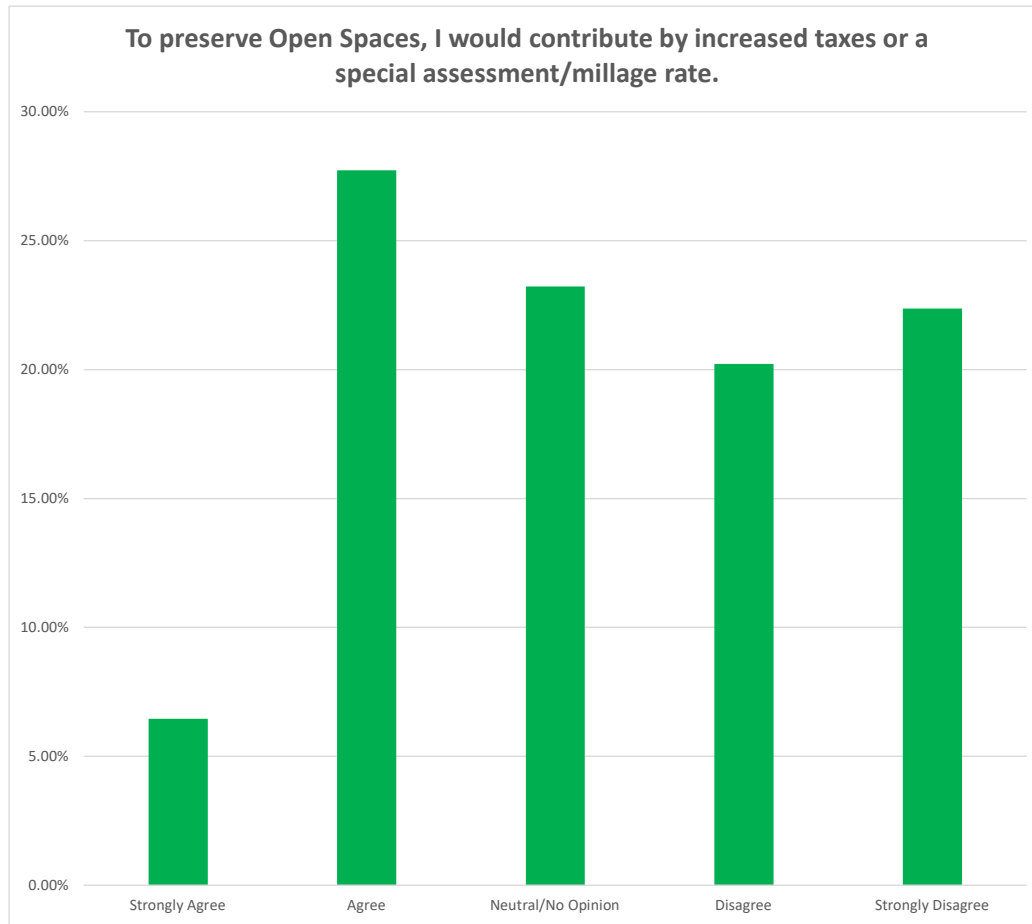




Gun Plain Charter Township Master Plan Survey

**Q13. To preserve Open Spaces, I would contribute by increased taxes or a special assessment/millage rate.**

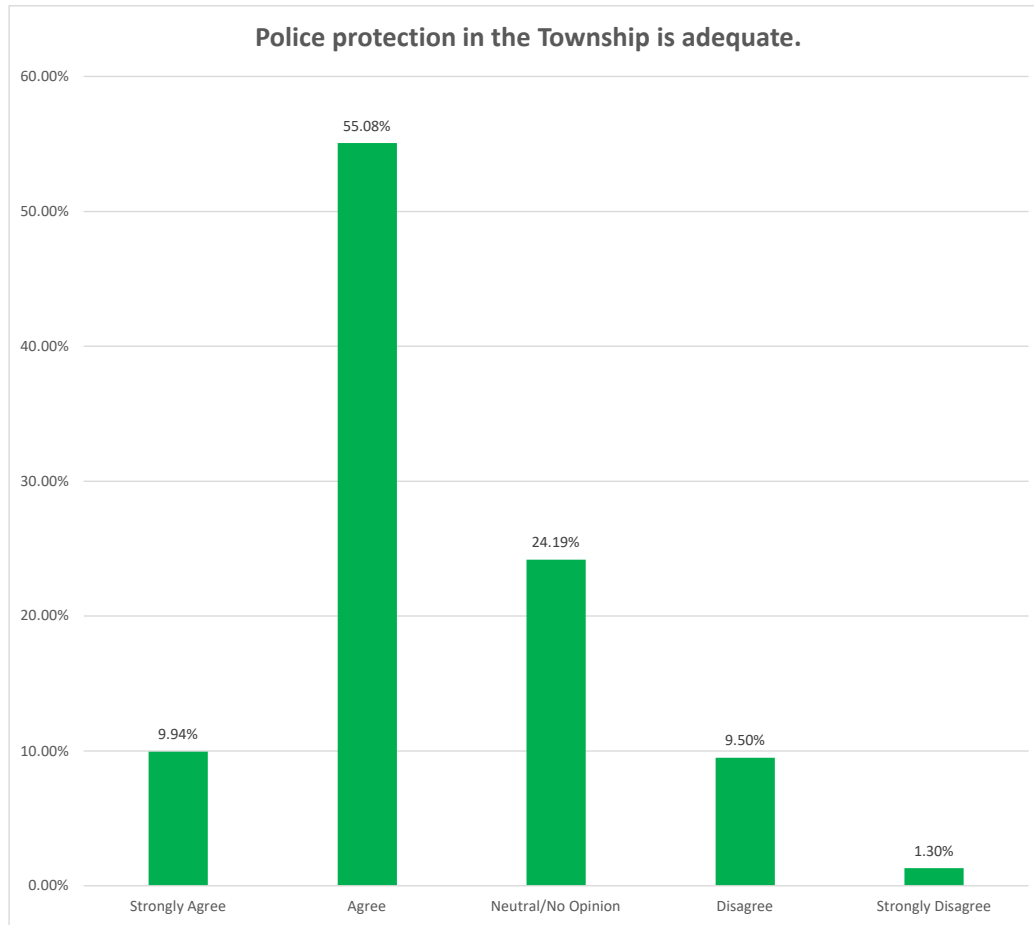
	Strongly Agree	Agree	Neutral/No Opinion	Disagree	Strongly Disagree	Total	Weighted Average
1	6.45%	27.74%	23.23%	20.22%	22.37%	465	3.24
	30	129	108	94	104		
	<b>Answered</b>						<b>465</b>
	<b>Skipped</b>						<b>25</b>



Gun Plain Charter Township Master Plan Survey

**Q14. Police protection in the Township is adequate.**

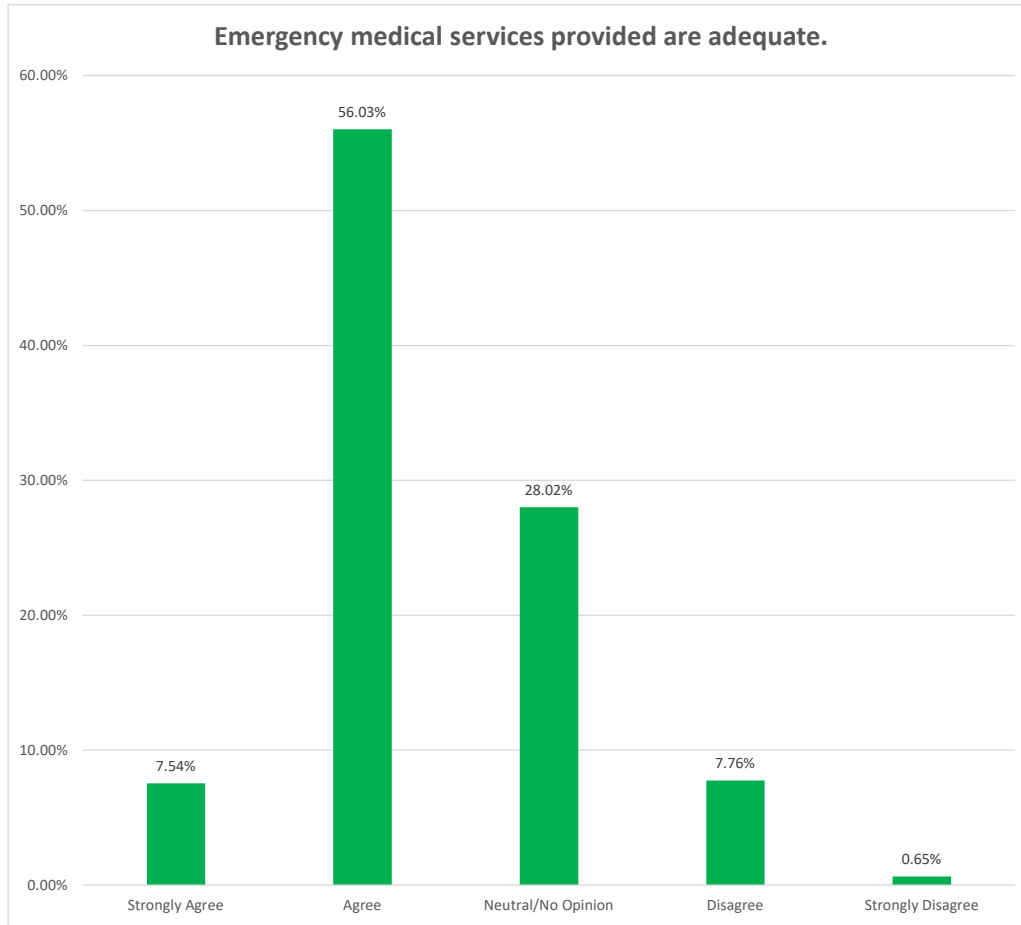
	Strongly Agree	Agree	Neutral/No Opinion	Disagree	Strongly Disagree	Total
1	9.94%	55.08%	24.19%	9.50%	1.30%	463
	46	255	112	44	6	
						<b>Answered</b>
						<b>Skipped</b>



Gun Plain Charter Township Master Plan Survey

**Q15. Emergency medical services provided are adequate.**

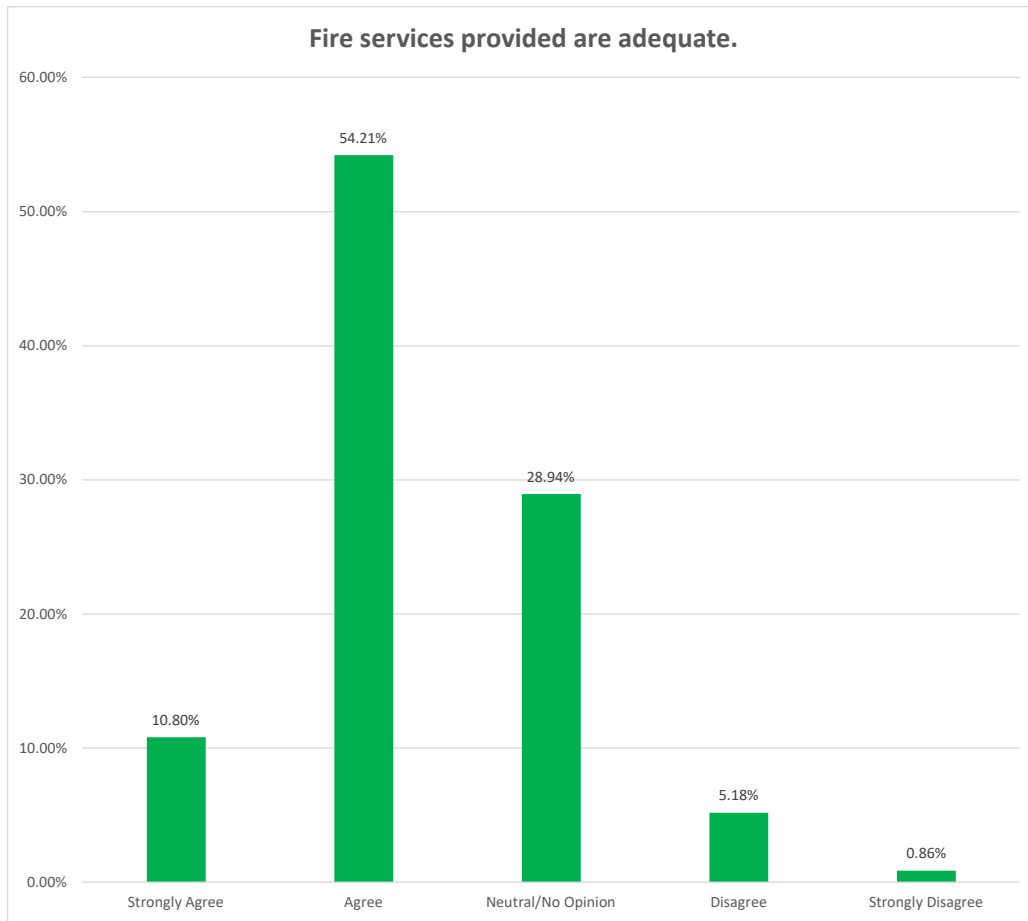
	Strongly Agree	Agree	Neutral/No Opinion	Disagree	Strongly Disagree	Total
1	7.54%	56.03%	28.02%	7.76%	0.65%	464
	35	260	130	36	3	
						<b>Answered</b>
						<b>Skipped</b>



Gun Plain Charter Township Master Plan Survey

**Q16. Fire services provided are adequate.**

	Strongly Agree	Agree	Neutral/No Opinion	Disagree	Strongly Disagree	Total
1	10.80%	54.21%	28.94%	5.18%	0.86%	463
	50	251	134	24	4	
						<b>Answered</b>
						<b>Skipped</b>



Gun Plain Charter Township Master Plan Survey

**Q17. Road maintenance provided by the Allegan Road Commission is adequate.**

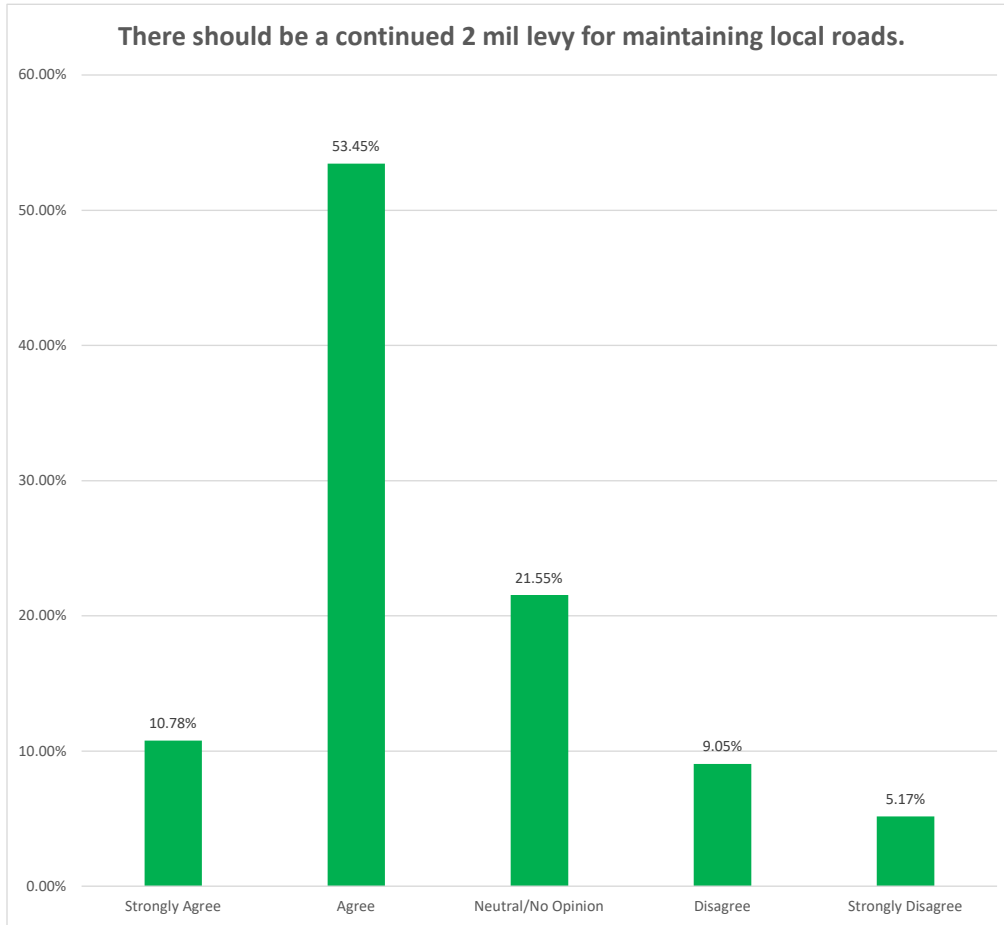
	Strongly Agree	Agree	Neutral/No Opinion	Disagree	Strongly Disagree	Total					
1	5.83%	27	50.54%	234	15.98%	74	20.52%	95	7.13%	33	463
											<b>Answered</b>
											<b>Skipped</b>



Gun Plain Charter Township Master Plan Survey

**Q18. There should be a continued 2 mil levy for maintaining local roads.**

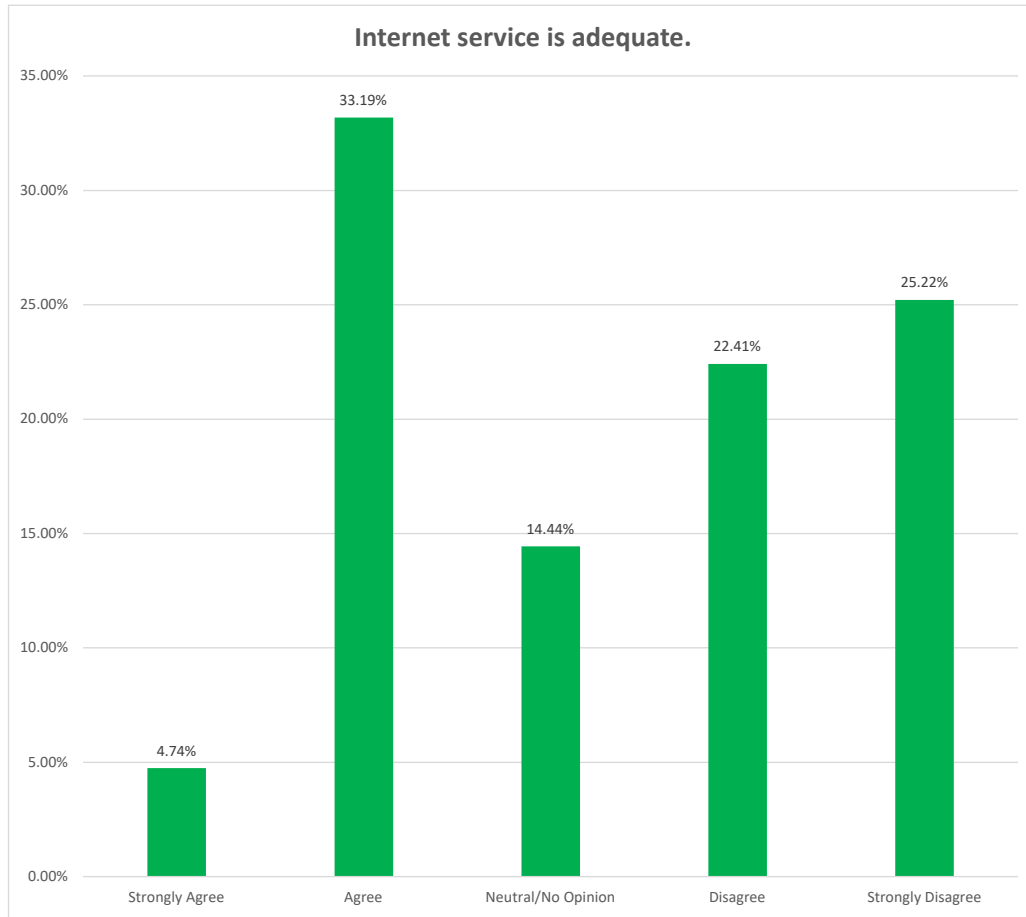
	Strongly Agree	Agree	Neutral/No Opinion	Disagree	Strongly Disagree	Total
1	10.78%	53.45%	21.55%	9.05%	5.17%	464
	50	248	100	42	24	
						<b>Answered</b>
						<b>Skipped</b>



Gun Plain Charter Township Master Plan Survey

**Q19. Internet service is adequate.**

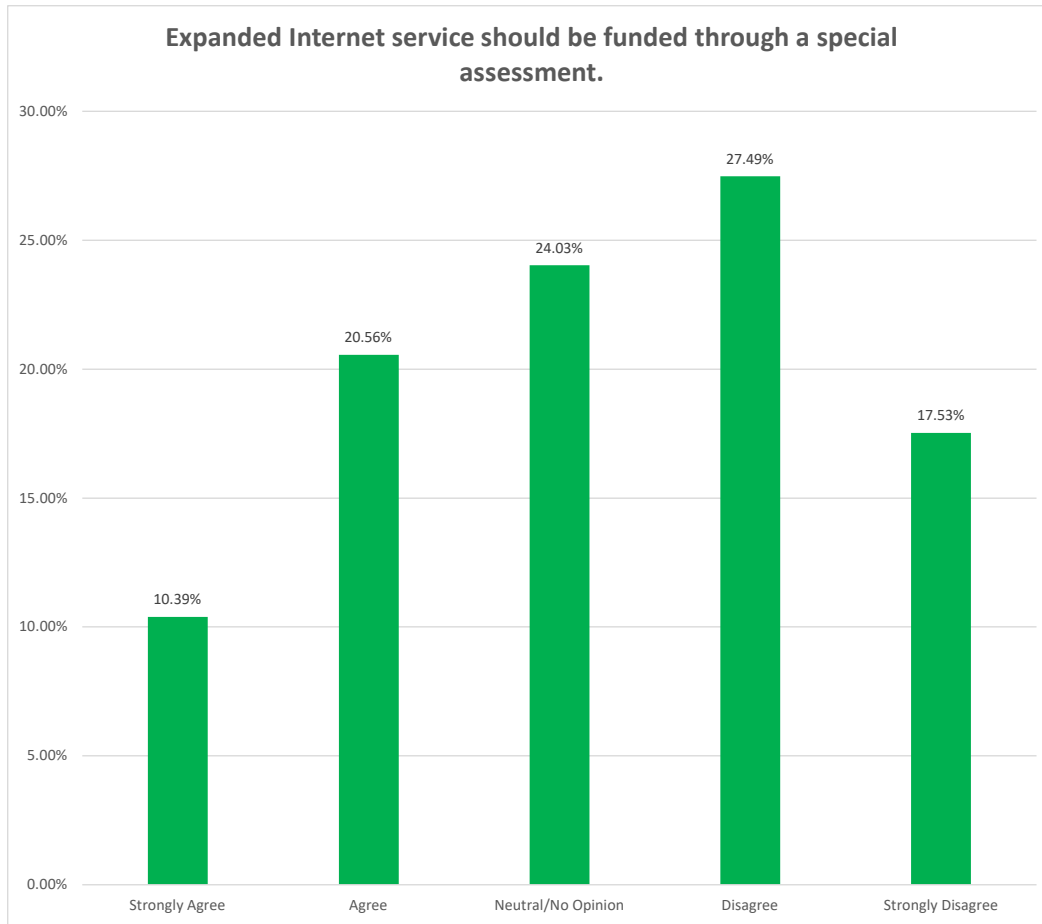
	Strongly Agree	Agree	Neutral/No Opinion	Disagree	Strongly Disagree	Total
1	4.74%	33.19%	14.44%	22.41%	25.22%	464
	22	154	67	104	117	
						<b>Answered</b>
						<b>Skipped</b>



Gun Plain Charter Township Master Plan Survey

**Q20. Expanded Internet service should be funded through a special assessment.**

	Strongly Agree	Agree	Neutral/No Opinion	Disagree	Strongly Disagree	Total
1	10.39% 48	20.56% 95	24.03% 111	27.49% 127	17.53% 81	462
						<b>Answered</b>
						<b>Skipped</b>

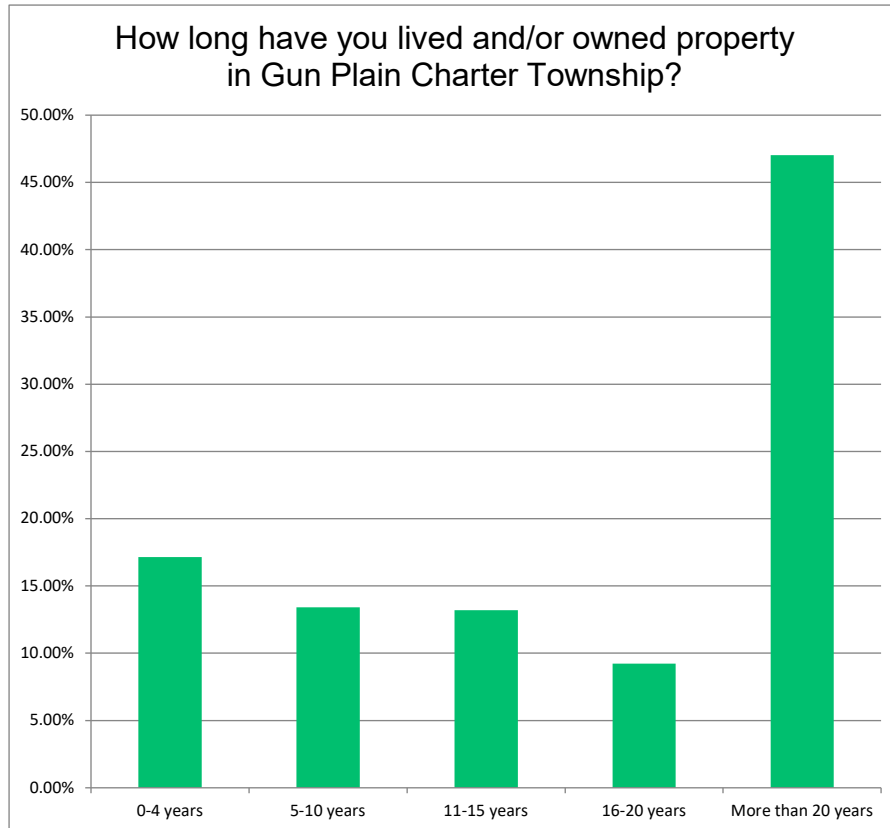




Gun Plain Charter Township Master Plan Survey

**Q21. How long have you lived and/or owned property in Gun Plain Charter Township?**

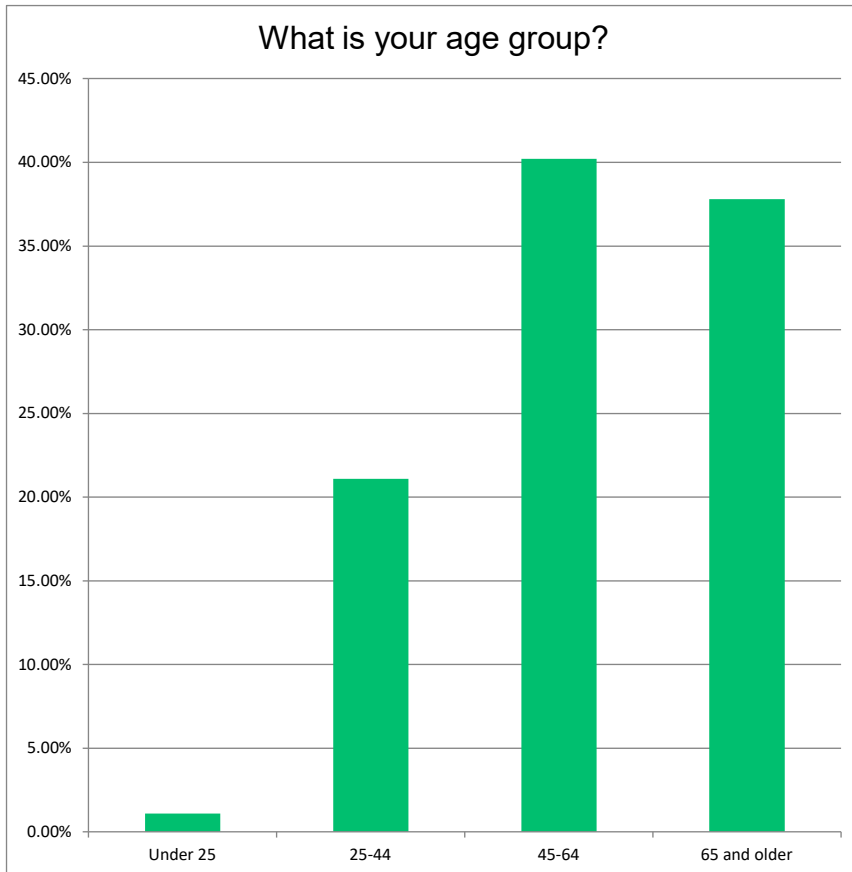
Answer Choices	Responses	
0-4 years	17.14%	78
5-10 years	13.41%	61
11-15 years	13.19%	60
16-20 years	9.23%	42
More than 20 years	47.03%	214
<b>Answered</b>		<b>455</b>
<b>Skipped</b>		<b>35</b>



Gun Plain Charter Township Master Plan Survey

**Q22. What is your age group?**

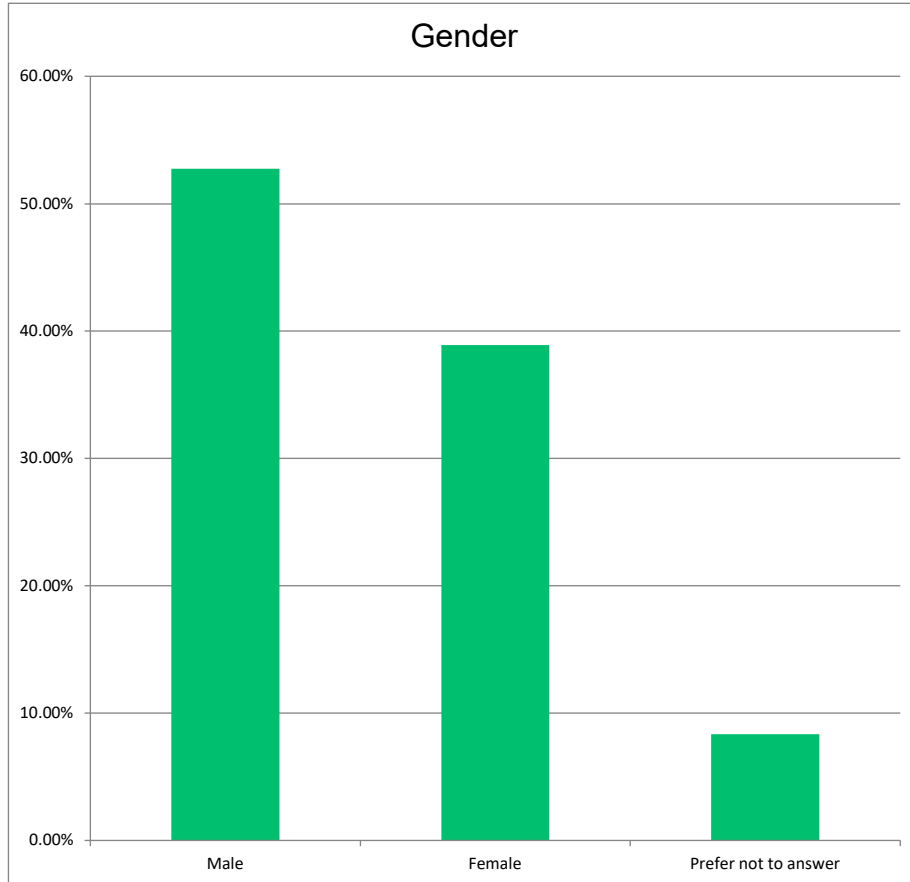
Answer Choices	Responses	
Under 25	1.10%	5
25-44	21.10%	96
45-64	40.22%	183
65 and older	37.80%	172
<b>Answered</b>		<b>455</b>
<b>Skipped</b>		<b>35</b>



Gun Plain Charter Township Master Plan Survey

**Q23. Gender**

Answer Choices	Responses	
Male	52.75%	240
Female	38.90%	177
Prefer not to answer	8.35%	38
<b>Answered</b>	<b>455</b>	
<b>Skipped</b>	<b>35</b>	



Gun Plain Charter Township Master Plan Survey  
**Q254. Which quadrant of the Township do you live in?**

Answer Choices	Responses	
Northwest (NW)	16.30%	74
Northeast (NE)	18.72%	85
Southeast (SE)	45.37%	206
Southwest (SW)	19.60%	89
<b>Answered</b>	<b>454</b>	
<b>Skipped</b>	<b>36</b>	

