

2020 Manistee Township Master Plan



Public Hearing Date:
12.1.2021

Adopted by the Manistee Township Planning Commission:
12.1.2021

Adopted by the Manistee Township Board
12.9.2021



**PLANNING COMMISSION
TOWNSHIP OF MANISTEE
MANISTEE COUNTY**

RESOLUTION 2021-01PC

At a regular meeting of the Planning Commission of Manistee Township, held on the 1st day of December 2021, at the Manistee Township Hall, 410 Holden Street, Manistee, MI, 49660

Present: Charlie Schoedel, Ed Seng, John Dontz, Jack Dinsen, Duane Anderson

Absent: Richard Edmondson, Mike Willett

The following preamble and resolution were offered by John Dontz, and supported by Ed Seng:

**TOWNSHIP OF MANISTEE PLANNING COMMISSION RESOLUTION TO
RECOMMEND THE ADOPTION OF THE 2020 MANISTEE TOWNSHIP MASTER
PLAN**

WHEREAS, the Michigan Planning Enabling Act (MPEA), 2008 PA 33, MCL 125.3801, *et seq.*, requires municipal planning commissions to prepare a “master plan” pertinent to the future development of the municipality; and

WHEREAS, the Manistee Township Planning Commission (the “Planning Commission”), in collaboration with the Manistee County Planning Department, has prepared a draft master plan for the Township of Manistee, titled “2020 Manistee Township Master Plan,” to update and replace its previous Master plan, dated 2001; and

WHEREAS, at a regular meeting of the Manistee Township Board held on September 9, 2021, the Township Board approved the distribution of the draft 2020 Manistee Township Master Plan to the applicable entities as required by Section 41(2) of the MPEA, MCL 125.3841(2), for review and comment purposes; and

WHEREAS, the proposed 2020 Manistee Township Master Plan was made available to the general public, and was distributed to the applicable entities as required by Section 41(2) of the MPEA, MCL 125.3841(2), and a public hearing was held thereon by the Planning Commission on December 1, 2021, properly noticed in accordance with the MPEA; and

WHEREAS, the Planning Commission finds the proposed 2020 Manistee Township Master Plan as submitted for the public hearing is desirable and proper, and furthers the land use and development goals and strategies of the Township; and

WHEREAS, the Township’s adoption of the proposed 2020 Manistee Township Master Plan requires the approval of the Planning Commission by resolution carried by the affirmative votes of not less than a majority of the members of the Planning Commission; and

WHEREAS, the Manistee Township Board has adopted a resolution asserting the right of the Township Board to approve or reject the proposed 2020 Manistee Township Master Plan following approval of the proposed Master Plan by the Planning Commission;

NOW, THEREFORE, BE IT RESOLVED that the Manistee Township Planning Commission hereby recommends to the Manistee Township Board the adoption of the 2020 Manistee Township Master Plan as submitted for the public hearing held on December 1, 2021, with edits, if any, subsequently identified by the Planning Commission, including all the text, charts, tables, maps, and descriptive and other matter therein intended by the Planning Commission to form the complete Master Plan, including the Future Land Use Map.

AYES: Charlie Schoedel, John Dontz, Ed Seng, Duane Anderson, Jack Dinsen

NAYS: None

ABSENT: Richard Edmondson, Mike Willett

RESOLUTION DECLARED ADOPTED.

/s/ J. Dinsen

Jack Dinsen, Appointed Temporary Secretary
Manistee Township Planning Commission

CERTIFICATION

I, Jack Dinsen, being appointed the Temporary Secretary at the, and for the 12.01.2021 Planning Commission Meeting, in the absence of Mike Willett, Secretary, of the Manistee Township Planning Commission, certify that the above is a true and accurate copy of the resolution adopted by the Manistee Planning Commission at the regular meeting on the 1st day of December, 2021.

/s/ J. Dinsen

Jack Dinsen, Appointed Temporary Secretary
Manistee Township Planning Commission

**Township of Manistee
County of Manistee, Michigan**

Resolution No. 2021-18

Township Board Resolution to Adopt Master Plan

WHEREAS, the Michigan Planning Enabling Act (MPEA) authorizes the Planning Commission to prepare a Master Plan for the use, development and preservation of all lands in the Township; and,

WHEREAS, the Planning Commission prepared a proposed updated Master Plan and submitted the plan to the Township Board for review and comment; and

WHEREAS, on September 9, 2021, the Manistee Township Board received and reviewed the proposed Master Plan prepared by the Planning Commission and authorized distribution of the Master Plan to the Notice Group entities in the MPEA; and

WHEREAS, notice was provided to the Notice Group entities in the MPEA; and

WHEREAS, the Planning Commission held a public hearing on December 1, 2021 to consider public comment on the proposed updated Master Plan, and to further review and comment on the proposed updated Master Plan; and

WHEREAS, the Township Board finds the proposed updated Master Plan is desirable and proper and furthers the use, preservation, and developmental goals and strategies of the Township;

WHEREAS, the MPEA authorizes the Township Board to assert by resolution its right to approve or reject the proposed Master Plan;

THEREFORE, BE IT HEREBY RESOLVED AS FOLLOWS:

1. **Adoption of 2020 Master Plan.** The Township Board hereby approves and adopts the proposed 2020 Master Plan, including all of the chapters, figures, maps and tables contained therein. Pursuant to MCL 125.3843 the Township Board has asserted by resolution its right to approve or reject the proposed Master Plan and therefore the approval granted herein is the final step for adoption of the plan as provided in MCL 125.3843 and therefore the plan is effective as of December 9, 2021.
2. **Distribution to Notice Group.** The Township Board approves distribution of the adopted plan to the Notice Group.
3. **Findings of Fact.** The Township Board has made the foregoing determination based on a review of existing land uses in the Township, a review of the existing Master Plan provisions and maps, input received from the Planning Commission and public hearing, and with the assistance of a professional planning group, finds that the updated Master Plan will accurately reflect and implement the Township's goals and strategies for the use, preservation, and development of lands in Manistee Township.
4. **Effective Date.** The Master Plan shall be effective as of the date of adoption of this resolution.

It was moved by Mr. Finout and supported by Ms. Jankwietz that the resolution be adopted.

Upon a roll call vote, the following voted:

Voting in Favor: Dontz, Finout, Jankwietz, Taylor, Bjorkquist

Voting Against: None

Absent: None

The Supervisor declared the resolution adopted.

I, the undersigned, the Clerk of the Township of Manistee, Manistee County, Michigan, do hereby certify that the foregoing is a true and complete copy of the duly adopted resolution adopted at the regular meeting of the Manistee Township Board, and a true and correct copy is included in the December 9, 2021 Manistee Township Board Minutes.

/s/

Dianne Taylor
Manistee Township Clerk

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Forward

This Master Plan Process was undertaken in 2019-2021 as a full development of a new Master Plan for Manistee Township. The previous plan, dated 2001, was utilized as a baseline for the development of the scope of this plan.

This plan utilizes the most current data from the US Census Bureau along with GIS data from Manistee County. The plan seeks to provide a road-map for future, orderly development within the Township.

Practices and recommendations that seek to protect natural resources, promote density in areas of infrastructure, promote multi-modal transportation options, protect airport runway approaches, preserve farmland and open space while simultaneously promoting rural residential clustering, and managing traffic congestion in the areas of the US-31 corridor are contained within.

Acknowledgments

Manistee Township Planning Commission

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Mike Willett
John M. Dontz
Ed Seng
Richard Edmondson
Jack D. Dinsen
Charlie Schoedel

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This Master Plan was developed by a collaborative effort between the Manistee Township Planning Commission and the Manistee County Planning Department.

1: Introduction & Methodology

The Township of Manistee is creating a new Master Plan, which will define the vision of what the community wants to become and the steps necessary to meet that vision. Having an accurate understanding of the Township's existing conditions is necessary in order to develop an appropriate and effective new Master Plan that addresses the correct issues and concerns of the community. This Master Plan incorporates several sections which provide a current snapshot of the community, a desired vision for the community and a road map of how to achieve that vision, along with actions to be taken under a future land use plan that will guide a zoning action plan.

1.1: Regional Context

Manistee Township is located in Northwest, lower Michigan in the Southwest corner of Manistee County. Manistee Township is one of the fourteen townships in the County. The Village of Eastlake, overlooking Manistee Lake along its Eastern shore, is in Manistee Township. The township has a total area of 48.2 square miles, with 92% of that area being land and the remainder being water. The Township is a slowly growing residential community with a commercial base ripe for expansion. The township can be defined by its rolling hills, beautiful beaches, inland lakes, river bayous, farmland, public land, scenic landscapes and residential areas. (See Map 1)



Map 1: Location of Manistee Township in Manistee County

1.2 Township History

Manistee Township was one of two other townships established in 1855 by the Michigan State Legislature when Manistee County was organized. The Southwest section of the township, along with the City of Manistee, has been the largest population center of the County for over 150 years. With the expanding lumber market in the late 1800s and early 1900s; Manistee township saw significant growth in population with census figures showcasing 3,000 residents in 1900. As the Great Depression sent shock waves throughout the country and state; a steady decline in population occurred. The next 80 years showcased a small though steady increase in the populous with a downturn in the 1980's. The 2000 census found over 3,700 Manistee Township residents.

1.3 Local Plans

Manistee Township Master Plan, 2001

The previous Township Master Plan, developed in 2001 in conjunction with Wade Trim, did an excellent job of inventorying the Township Features, obtaining public input and providing a vision for the orderly development of the community. The plan included many desired actions for the community that are supported and replicated within this planning document. These include:

- Reducing Traffic Congestion and Conflicts
- Improving Pedestrian and Multi-Modal Transportation
- Concentrating Commercial and Industrial Uses
- Improving Recreation and Park Space
- Supporting Economic Development
- Working cooperatively with Neighboring Jurisdictions
- Protection of Open Space and Agricultural Land

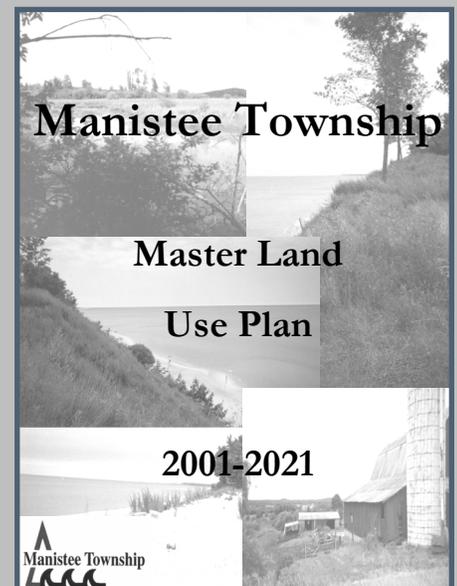


Image 1: Manistee Township Master Plan, 2001

Manistee County-Wide Park and Recreation Plan, 2016

Manistee Township was a participant in the [County-Wide Recreation Plan](#) which was initiated in late 2014 and completed in 2016. The plan met the State of Michigan requirements for a park and recreation plan for the community, which has led to eligibility for grants through the State. This Master Plan directs the reader to the County-Wide Park and Recreation Plan for all in-depth information pertaining to public land and recreation sites.

The “Manistee Lake Area Non-Motorized Trail Plan” was completed in July 2020.

US-31 Corridor Enhancement Plan, 2017

The [US-31 Corridor Plan](#), as it is often referred to, captured and identified improvements for the entire corridor in Manistee County. The Plan specified character zones for the corridor, with each zone defining specific designs for various sections of the corridor. The plan also outlined the need for access management standards which facilitate ease of vehicular movement and enhance safety. Aspects of the design for sections of the corridor, as well as, access improvements are captured within the Future Land Use Plan and Recommendations of this document, but the reader is encouraged to view the US-31 Corridor Plan for a complete snapshot of the corridor.

1.3.2: Regional Plans

Regional Plans in the context of this section refer to the development of plans through State agencies and Regional Planning Agencies such as Networks Northwest. These plans are captured and outlined below.

US-31 Corridor Management Plan, MDOT, 2004

Under direction of the Michigan Department of Transportation (MDOT), development of the [US-31 Corridor Management Plan](#) sought to inventory access and features along the corridor within the urban and suburban areas of US-31 (primarily northern Filer Township, City of Manistee and southern Manistee Township). Direct identification of driveways that should be closed or combined for access to parcels, improved road alignment, and intersection improvements are the crux of the inventory with strong recommendations for adoption of access regulations by the Township. Elements of this plan are captured within this document as they are still very relevant and in need of inclusion.

Regional Prosperity Initiative and Networks Northwest

The State of Michigan Legislature in 2014 approved the process for the Regional Prosperity Initiative. The initiative, a voluntary grant process, is meant to encourage local private, public and non-profit partners to create vibrant regional economies. In order to be eligible for grants through the initiative, partnerships must be made with business, non-profit and local/regional economic development organizations. Manistee Township is contained within the Northwest Prosperity Region, along with the whole of Manistee County and the other nine counties comprising Northwest



Image 2: Manistee County-Wide Park & Recreation Plan, 2016

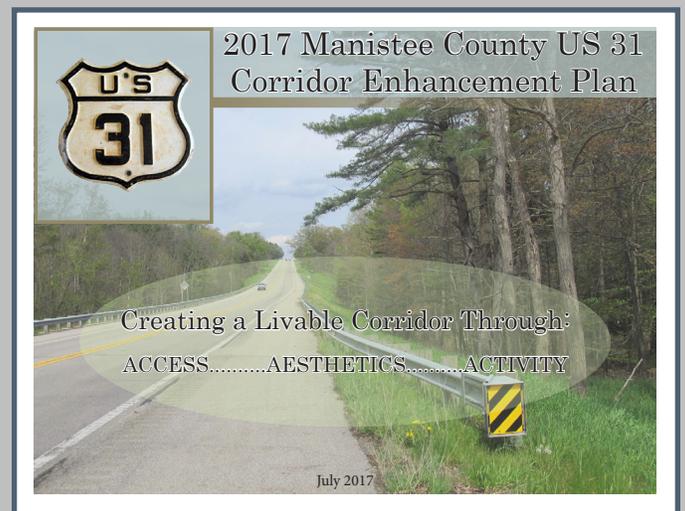


Image 3: US 31 Corridor Enhancement Plan, 2017

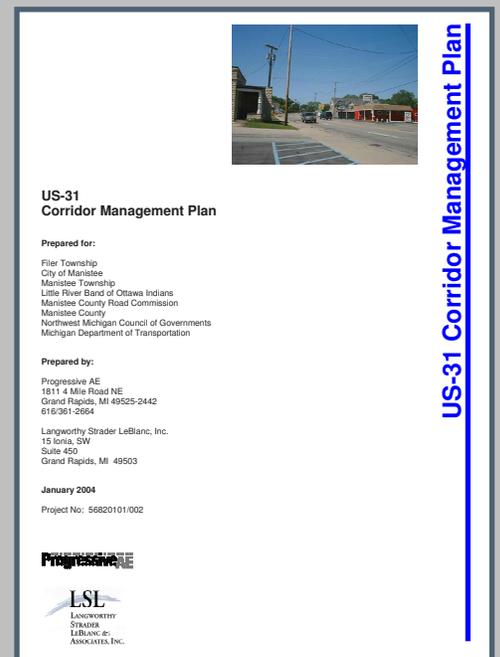


Image 4: US 31 Corridor Management Plan, 2004

Michigan. The initiative is led by Networks Northwest for our prosperity region. Utilizing Networks Northwest as a lead agency, or review agency, for local plans will help to solidify the Township as a partner in regional processes moving forward. Manistee Township is currently working with Networks Northwest to update the Township's Parks and Recreation Plan.



Our mission is to build stronger communities and enhance the quality of life in Northwest Michigan.

Networks Northwest's member counties are: Antrim, Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Leelanau, Manistee, Missaukee, and Wexford.

2: Existing Conditions Inventory

2.1: Current Land Uses

Land use within the Township encompasses a broad range of uses including residential, commercial, industrial, agricultural and open space/forestry. Parcel tax classification, assigned by the Township Assessor reflects the “highest and best use” of a parcel of land. Parcel tax classification doesn’t necessarily follow a community’s zoning classification, nor should it in some cases, as zoning also considers neighboring land uses, environmental features and/or community services. Parcel tax assessment does provide us an accurate method of determining “existing” land uses within a community. The parcel tax assessment classification which outlines current land uses is displayed on Map 2.

2.1.1: Residential & Housing

Manistee Township has varying residential density. Higher residential densities are located immediately adjacent to the City of Manistee along the southern portion of the Township in the area of US-31 from Lakeshore Road to Perry Street. Higher density can also be found in the vicinity of Bar Lake, and pockets of residential clusters in the area of Kemmer Road, Mar-lawn Drive and Elliot Drive and West Kott Road. The Little River Band of Ottawa Indians (LRBOI) has a cluster of high density housing located on tribal lands off of Dontz Road.

Lower density or rural residential uses can be found throughout the remainder of the Township. Significant areas of the Township are classified as residential improved or residential vacant, with these same land areas having parcel sizes of 20 acres or greater. Lot size analysis, kernel density mapping, along with infrastructure locations and the inclusion of agricultural uses will detail strategies for meeting residential needs of the community, while maintaining the rural character which is sought after by residents and visitors.

The Township has a predominant housing type of single-family residential, with very few two-family or multi-family housing options. Data for our region points to limited housing opportunities as an issue. Limiting workers options for housing impacts local employment and other facets of the community.

2.1.2: Commercial, Retail Trade & Office

Commercial development within Manistee Township is located primarily along the US-31 Corridor from the boundary with the City of Manistee to Manistee Blacker Airport. This corridor is the appropriate location for commercial development as infrastructure is present, neighboring residential areas are more dense and residents of the community have convenient access through primary transportation routes. The commercial corridor of US-31 doesn’t currently support multi-modal transportation as there are few sidewalks or bike-lanes. Excessive amounts of curb cuts and the lack of interconnectivity of developed parcels increases the number of conflict points for motorists. This leads to delays in vehicular movement and higher chances of vehicle crashes.

Neighboring residential clusters within the vicinity of the commercial corridor provide a mix of uses that supports retail and services along the corridor. Existing and expanded commercial development should be planned appropriately to protect these residences and the character of the community.

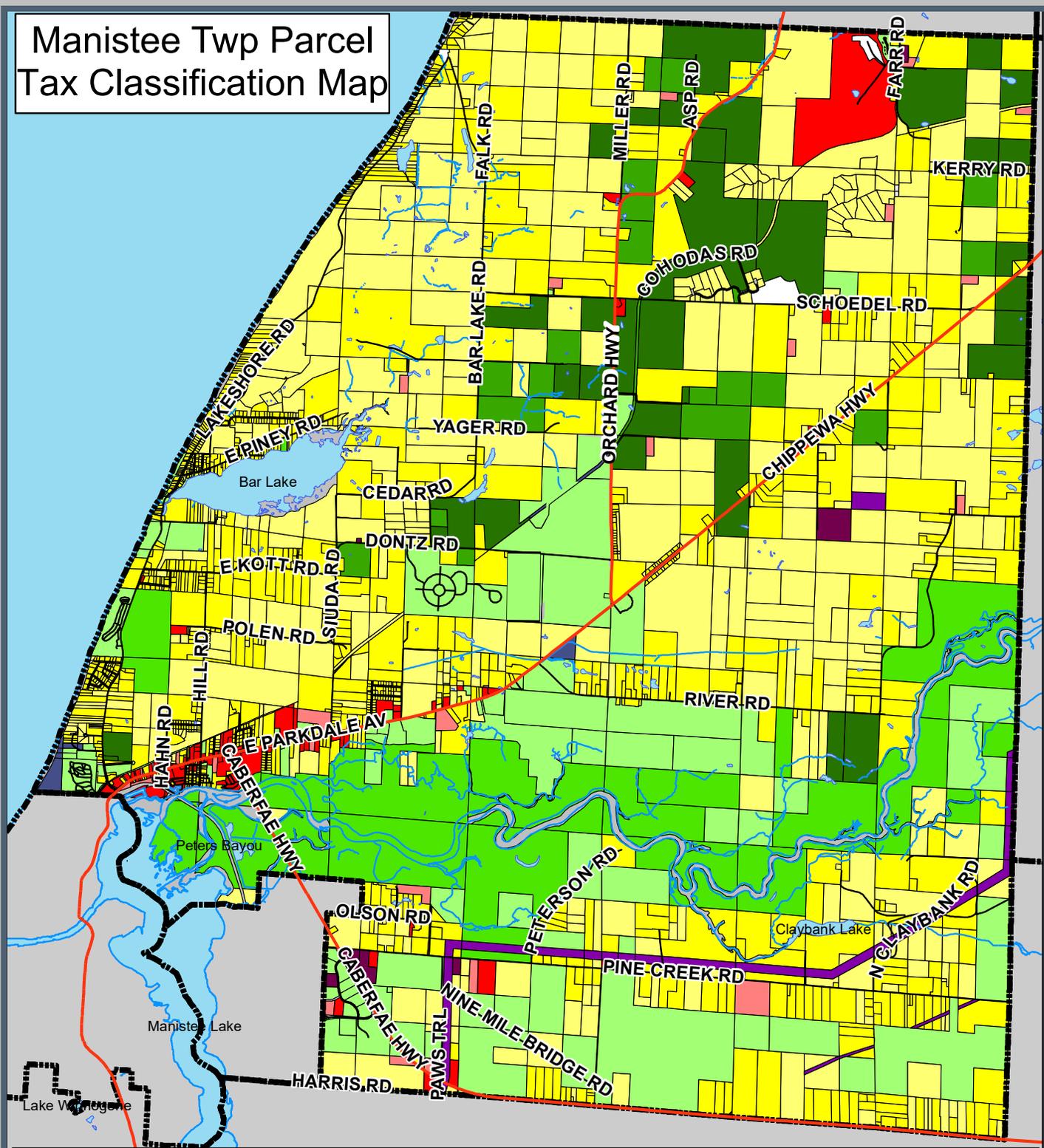
2.1.3: Industrial & Manufacturing

There is very little current industrial land use within Manistee Township, as much of the manufacturing base for the County is located immediately adjacent to Manistee Lake, within the City of Manistee and Filer and Stronach Townships. A few oil and gas wells are located within the Township and are classified as industrial. Other industrially classified parcels are located in proximity to the Oaks Correctional Facility along Pine Creek Road. This area of the Township, with appropriate infrastructure and proximity of M-55 and US-31, is a sound location for these uses. Thought should be given to areas adjacent to the airport for future development of light industrial uses that may compliment the areas commercial uses.

2.1.4: Agriculture & Forestry

Agricultural areas can be found throughout the Township. Orchards are located in several areas, and benefit from the micro-climate created by Lake Michigan. This climate allows for the growing of fruit crops such as apples, pears, peaches, cherries and grapes. Beyond the economic production of these crops, some farms also include value added ventures such as u-pick operations, a winery and other “agri-tourism” related business operations. Several areas within the Township are farmed in more traditional row crop operations, although rather minimal in land area, these farms add to the scenic landscape and open space that is sought after by residents and visitors.

Manistee Twp Parcel Tax Classification Map



Parcel Classification					
	Retired Split/Combined		Commercial - Vacant		DNR Act 513 - AG on 513
	Non-Accessible Permanent Reference		Industrial - Improved		City/Township Boundary
	Agricultural - Improved		Industrial - Vacant		Adjacent Boundaries
	Agricultural - Vacant		Residential - Improved		Water Bodies
	Commercial - Improved		Residential - Vacant		Streams
	Commercial Building on Leased Land		Exempt Federal Property		Roads
	Exempt State Property		Exempt State Property		Highways

0 1 2 4 6 Miles

Map 2: Parcel Assessment Classification Map

Forestry includes the timber management of parcels under public and private ownership. Both the State and Federal governments manage public lands within the Township with some effort towards the harvesting of timber, which is coordinated with wildlife planning and/or habitat improvements. Some private lands also have a level of forestry, with management of timber through Forestry Management Plans, which seek to utilize the harvesting of certain species and age classes of trees to promote reforestation support of certain tree species. The Manistee Conservation District can assist private landowners with the management of their lands for forestry and wildlife.

2.1.5: Recreation Open Space

Manistee Township contains significant portions of the Manistee River State Game Area. This area includes lowland marshes, dikes, the Manistee River, bayous and upland forests. The area provides habitat for many animal and plant species while offering considerable recreational opportunities for individuals looking for a great location to enjoy wildlife and outdoor pursuits. The Michigan Department of Natural Resources manages the public lands of this game area and utilizes habitat management practices for the following feature species: American woodcock, mallard, and wood duck, with these practices also benefiting many other species.

The United States Forest Service (USFS) also has public lands within the Township that are a part of the Manistee National Forest. These lands are managed for wildlife and timber and provide additional recreation space for the public while also offering the benefits of scenery and environmental sustainability through soil, water and carbon retention.

2.1.6: Existing Zoning

- Big Manistee River Corridor District (BM-1)
- Wetlands District (W-1)
- Ag-Forest Preservation District (AP-1)
- Multiple Use District (M-1)
- Country Residential District (R-2)
- High Density Residential District (R-1)
- Commercial District (C-1)
- Industrial District (I)
- High Risk Erosion Overlay Zone District (OZ)

The existing zoning of Manistee Township incorporates eight zoning districts within the Township. All lands of the Township are currently zoned except the lands held in trust by the LRBOI. Zoning Districts are provided below and displayed on Map 3:

The zoning districts provided for in the zoning ordinance outline purposes that range from protection of open space to orderly high density residential and commercial development. A synopsis of the densities and allowed uses are provided for in table 2.1.

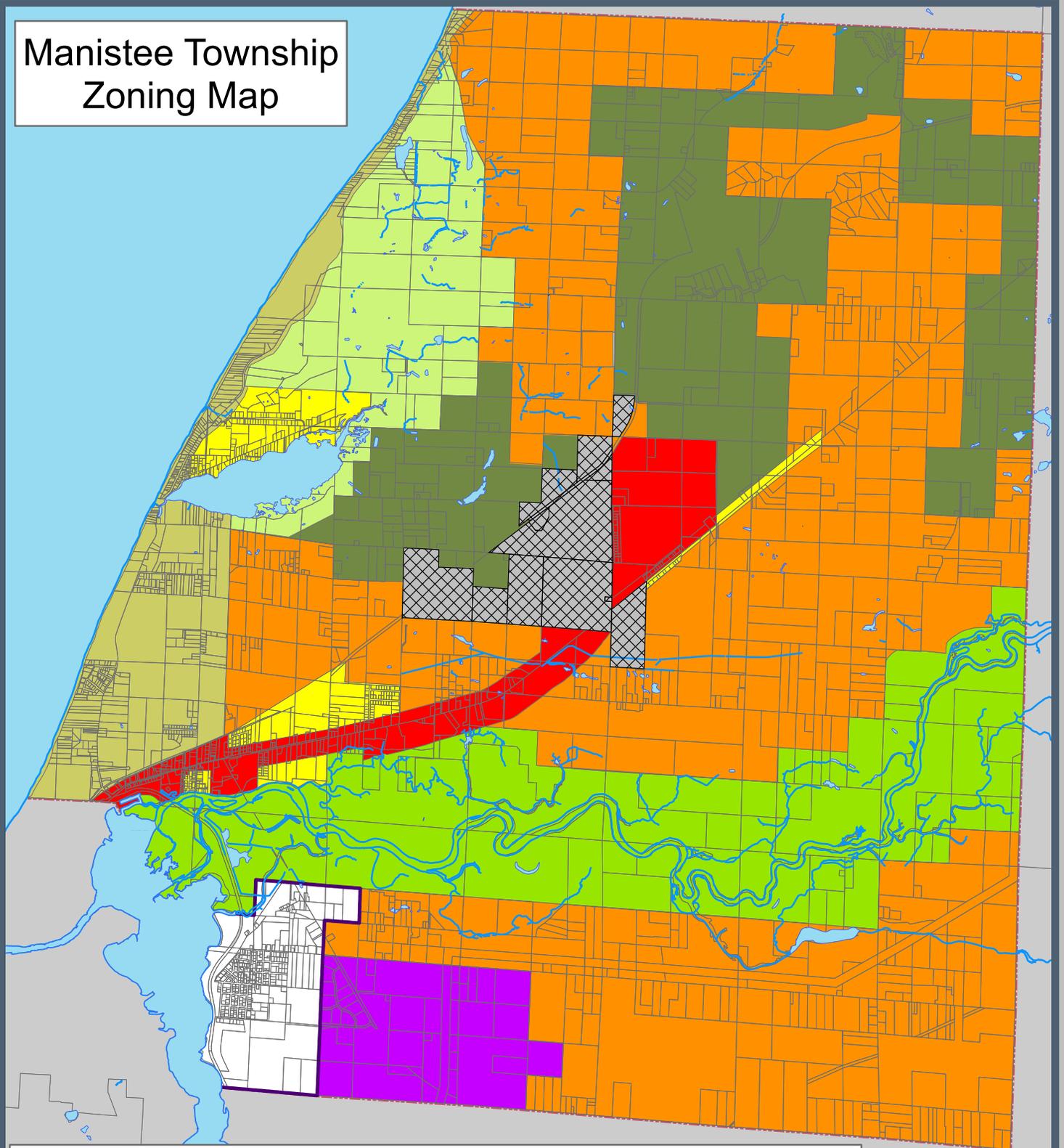
Zoning District	Density	Uses
BM-1	10 acre min	Lower density residential, rural non-noxious incidental commercial business, home occupations
W-1	5 acre min	Lower density residential, home occupations
AP-1	*10 acre min	Lower density residential, rural agricultural business, home occupations, light commercial
M-1	5 acre min	Lower density residential, low density commercial, many commercial uses allowed under special use
R-2	25k ft ²	Medium density residential development, some commercial uses allowed under special use
R-1	15k ft ²	High density residential development, limited commercial uses allowed under special use
C-1	15k ft ²	Commercial development, many uses allowed as by right and many uses allowed as special use
I	3-5 acres	Industrial development that is considered light by most definitions, very limited uses with chemicals
OZ	n/a	Does not restrict uses, creates increased setbacks from Lake Michigan bluff-line

**The AP-1 District allows development of dwellings on parcels ranging from 1 to 5 acres in size.*

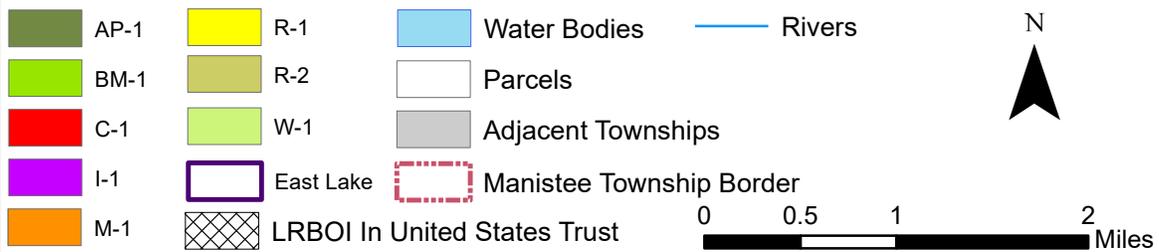
2.1.7: Natural Features

Manistee Township has nearly eight miles of frontage along Lake Michigan making it an outdoor enthusiasts paradise. Of the lake frontage, over half of it is considered a critical dune area (CDA). These CDAs represent some of the tallest and most spectacular dunes along the shoreline in the lower peninsula of Michigan. Development in these areas requires extra concern, thus the Michigan Department of Environment, Great Lakes, and Energy (EGLE) dictates more stringent permitting. Similar to EGLE, the Army Corps of Engineers maintains a presence in the County, providing permit and review of structures that are to be placed within federal waters.

Manistee Township Zoning Map



Manistee Twp Zone



Map 3: Existing Zoning Map

Federal waters incorporate all of Lake Michigan and Manistee Lake within the Township. The purpose of this is to regulate and balance development within the natural environment to maintain present usage as well as prepare for future generational use. As of this writing in 2020, all of Michigan has been dealing with near historic water levels of the Great Lakes. These historic water levels have been shocking, as Lake Michigan experienced an all time low as recent as 2013, with an unprecedented rise of more than three feet by the end of 2015. These high water levels have been vexing lakefront property owners who have been dealing with significant shoreline erosion and the prospect of their homes being in jeopardy of inundation by floodwaters or collapse due to the undermining of shoreline and bluffs.



Image 14: Resident Group seeks Bar Lake ecosystem
Credit: Manistee News Advocate

Nearly 10% of the Township is covered by surface water. These surface waters provide great recreational benefits as tourists and citizens maximize these areas to fish, enjoy paddle sports, motor boating and swimming. With the benefits, bring natural impediments to development. The Southern part of the township has significant wetlands that traverse the whole width, from East to West, along the Manistee River from the border with Brown Township to Lake Michigan. Wetlands are also located within the Township along Bar Lake heading northeast into the expansive Bar Lake Swamp. Wetlands have always been important for the retention of floodwaters and cleansing of stormwater, but have become ever more so with the continued high water tables and the flooding that has occurred in recent years. Floodplains are the areas adjacent to surface waters and wetlands that become inundated with surface water following storm events (such as along rivers and streams) or due to rising water levels of the Great Lakes or inland lakes. Manistee Township has been experiencing increased flooding of low lying areas adjacent to Lake Michigan and Manistee Lake. The Federal Emergency Management Agency (FEMA), recently remapped the coast of Lake Michigan, including Manistee Township for determination of floodplain areas. The Township is a member of the Flood Insurance Rate Map Program, which provides structure owners within the 100-year floodplain the opportunity to buy flood insurance. Standards are set by FEMA for floodplain development which incorporate design features into the structure for placement in a floodplain.

Steep slopes are common in the Township, with the soils being predominantly a glacial till that consists heavily of sand. These natural eroding soils give way to a rolling landscape that influences overland stormwater and water flow. Watersheds are the boundaries between separate areas of overland water flow. Watershed protection groups work to educate and perform improvements to the landscape to promote improved water quality. Although there is not an overarching watershed group within the Township, the Portage Lake Watershed Forever and Greater Bear Watershed are active in respective watersheds that include portions of the Township. The different watersheds within the Township include: Little Manistee River at Manistee Lake, Local Drainage from Bar Lake, Manistee River Outlet and Manistee Lake, Manistee River below Clay Bank Creek and Portage Lake watershed. See Map 4 for all Natural Features.

2.2: Infrastructure, Employers and Community Services

2.2.1: Transportation

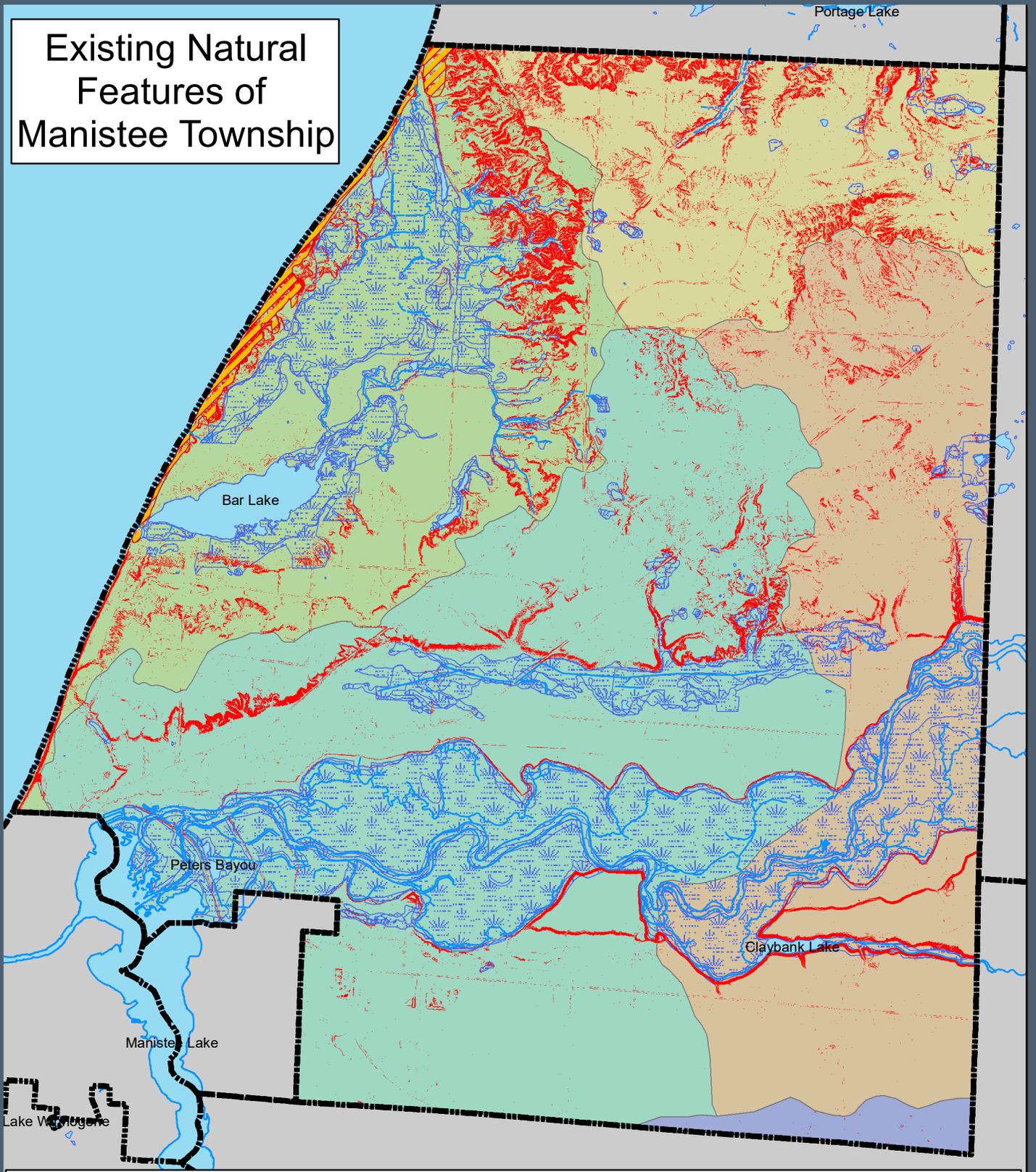
Manistee Township has a significant auto centric focus as there are three major highways that cross through the jurisdiction into surrounding areas. M-55 is located along the Southern border of the township separating Manistee Township from Stronach Township. This state trunk-line highway runs east to west extending across the whole Lower Peninsula from Lake Huron to Lake Michigan and goes through rural forest, urban areas and farmlands. The highway is maintained by the Michigan Department of Transportation (MDOT). See Map 5 for transportation features.

Intersecting M-55 and extending Northeast throughout the township is Highway US-31 connecting Manistee Township with Bear Lake Township to the north and to the City of Manistee to the south. This major north-south U.S. highway connects Northern Michigan all the way to southern Alabama. This is the common route for individuals traveling from Traverse City in the north as well as the southern Cities of Ludington, Muskegon, and Holland. This highway eventually converges with interstates including I-94 and I-96 connecting to large cities like Ann Arbor, Detroit and Grand Rapids.



Image 15: Manistee County Blacker Airport
Credit: Manistee County Blacker Airport

Existing Natural Features of Manistee Township



Legend

City/Township Boundary	Little Manistee River at Manistee Lake	Slopes 25% or Greater 25+
Surrounding Townships and Municipalities	Local Drainage-Bar Lake	N
Water Bodies	Manistee River Outlet-Manistee Lake	
Streams	Manistee River below Clay Bank Creek	0 0.5 1 2 Miles
Wetlands	Portage Lake	
Critical Dunes Area		

Like M-55, this highway system is also managed by the Michigan Department of Transportation. The route is a major transportation corridor for shipping and other trucking industries.

Connecting with US-31 and heading north to neighboring townships is M-22. This designated scenic highway, a Michigan state trunk-line, is a tourist attraction based on its picturesque surroundings. The trunk-line connects Manistee Township to nearby Onekama winding it's way around Portage Lake, then continuing north to Arcadia and eventually Benzie County.

Manistee Township is home to Manistee County Blacker Airport which is a public use airport located about 3 miles north of the City of Manistee. Most of its usage is general aviation with its current commercial destination being daily service to Chicago-Midway Airport. Total passenger usage in 2015 was just under 10,000 people. There are two total asphalt runways equating to over 8,000 ft of surface length. The airport covers an area of 290 acres and functions year round pending weather events. The Federal Aviation Administration has recommended incorporation of standards to facilitate protection of flight paths adjacent to the airport runways and in keeping with sound aviation incorporated land use planning, the Township should also consider the future land uses adjacent to the airport that support airport services and fit with the more "industrial and commercial" aspects of airports.

Freight transportation is a component of the transportation activity and infrastructure in areas of Manistee Township where both highway and rail routes converge. Rail operations in the Township pass through and over sensitive landscapes including Peters Bayou and the Manistee River. The Township has nearly 2.5 miles of total track that is owned by private entities. There are two railroad bridges in the Township and the track follows the Manistee Lake shoreline throughout the jurisdiction.

The Township has a minimal sidewalk network, but hosts the initial section of a non-motorized rail-trail within the County. Zimmerman Trail starts behind Burger King at Lakeshore Road and runs to Hill Rd terminating behind Wesco. Some localized trail networks include Orchard Beach State Park which offers trails for the casual hiker and the Manistee State Game Area which has areas of maintained dikes that can be utilized for hiking and walking. Recreation and Trails are fully detailed in the County-Wide Recreation Plan, the Manistee Lake Area Non-Motorized Trail Plan and the Manistee County Multi-Use Regional Trail Plan & Initiative.

2.2.2: County Drainage Districts

County Drainage Districts are under the authority of the Manistee County Drain Commissioner. The County Drain Commissioner has an important position in Manistee County as the State of Michigan Drain Code provides the Drain Commissioner almost unchecked authority when acting on petitions regarding drains and the maintenance of existing drainage districts. The Drain Code allows for the yearly assessment for maintenance of existing drainage districts at a rate of \$5,000 per linear mile of drain. Petitions brought forth for the maintenance of drains or for the creation of new drains must be acted upon by the Drain Commissioner according to the act. The property owners within the drainage districts, including local units of government and road agencies, are the responsible parties for covering expenses related to drainage district maintenance and establishment.

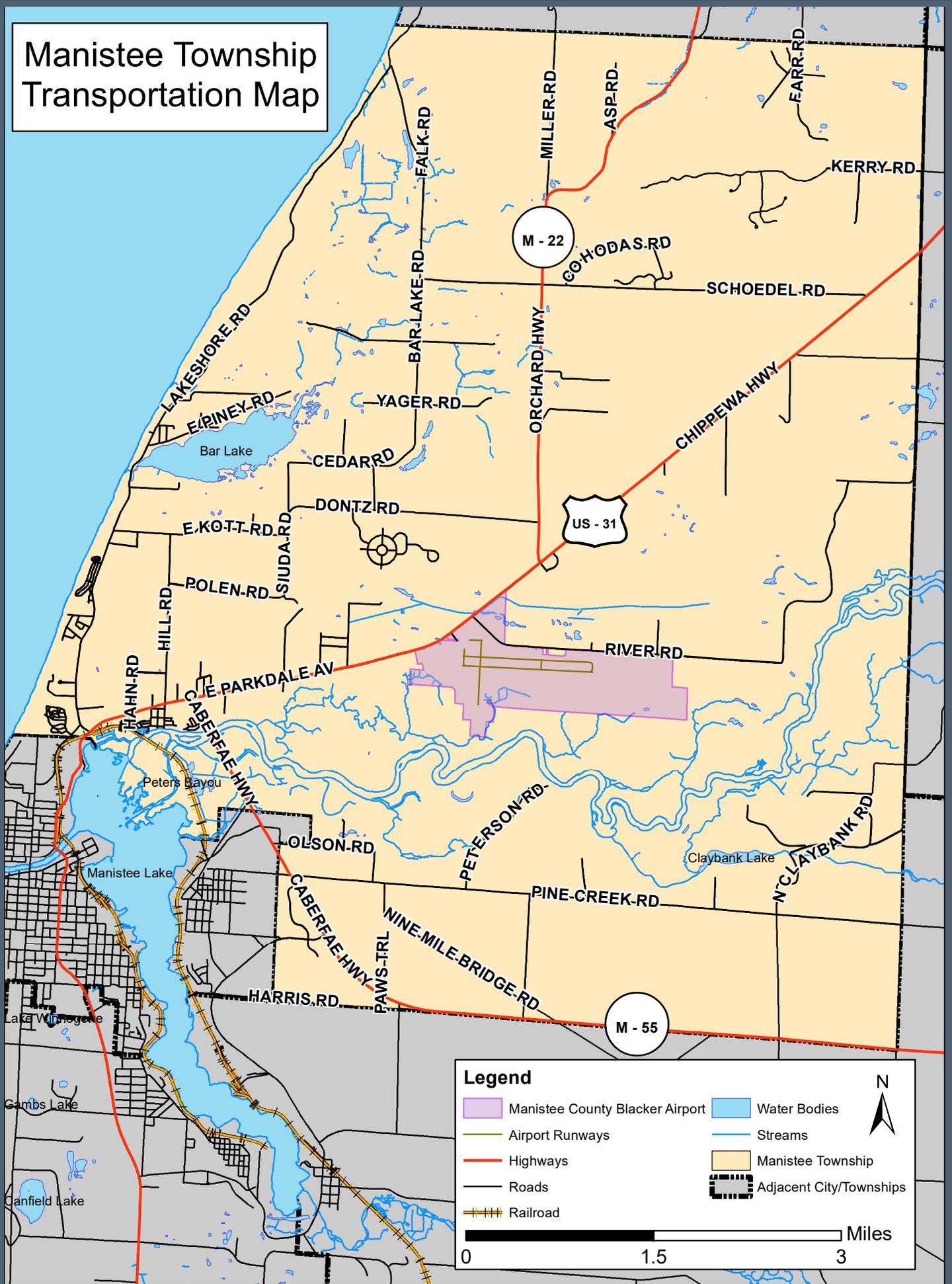
The three Drainage Districts in Manistee Township are shown on Map 6.

1. The Cemetery Drain is located along the boundary with the City of Manistee in the vicinity of Lakeshore Road and US-31. This drain has in ground infrastructure that carries water from the high areas west of US-31 and southwest of Lakeshore Road under the roadway and adjacent development emptying directly into Manistee Lake.
2. The Bar Lake Drain is a series of open ditches and flow paths that surround the Bar Lake Swamp in the area of Bar Lake and Schoedel Roads. This district was likely established to drain the lands surrounding the swamp to facilitate agricultural production.
3. The McGuineas Drain was created through combination of the existing Crommer and McGuineas Drains and the expansion of the drainage district boundaries out to the watershed boundary in 2012. This action was completed in response to a petition for maintenance by residential property owners to the Drain Commissioner. The petition was due to flooded basements brought about by a clogged drain inlet. Subsequent investigation identified a buried drainage pipe was eminent to fail. The open ditch drain runs along River Road, crossing under US-31 just north of the airport continuing west until it enters an in ground pipe and runs southerly under residential areas, US-31 and Munson Hospital before daylighting and dumping into the wetlands adjacent to the Manistee River.



Image 16: McGuineas Drain Repair
Credit: Manistee News Advocate

Manistee Township Transportation Map



Map 5: Transportation Map

2.2.3: Sewer & Water Infrastructure

Sewer and Water Infrastructure are present in the Township through cooperative agreements with the City of Manistee and the Little River Band of Ottawa Indians (LRBOI).

Tribal sewer infrastructure in the Township is in place with lines running from the US-31 and M-55 intersection northeast along US-31 to the Tribal lands in the vicinity of M-22. This infrastructure was developed through cooperative agreements with the LRBOI. City Of Manistee sewer infrastructure is available for connection for any new or existing developments from the US-31 & M-55 intersection to the south and west.

Development of dense multi-family, two-family and single-family housing should be considered adjacent to the corridor. Commercial and industrial development along the corridor should also connect to this infrastructure.

Water infrastructure through a cooperative agreement with the City of Manistee provides water service to a substantial area. From City wells adjacent to Manistee Blacker Airport, water lines run the length of US-31 to the City of Manistee city limits. Water lines also run from the intersection of US-31 and M-55 east to the Oaks Correctional Facility and the Village of Eastlake. Separate from the City's water district, the LRBOI also has water infrastructure in the Tribal land areas in the vicinity of US-31 and M-22 intersection. The availability of water and sewer within this Tribal area will allow for more residential density and commercial opportunity.



*Image 17: LRBOI Water Tower
Credit: Brandon Bartoszek*

2.2.4: Employers and Business

The Little River Casino Resort is owned and operated by the Little River Band of Ottawa Indians and is situated at the corner of US-31 and M-22. This is an entertainment destination that includes hotel rooms, an RV Park, restaurants, and pools. The Casino is one of the largest employers in the Township and County.

Manistee Township has a robust health care service presence. Munson Healthcare – Manistee Hospital offers the following feature services: cancer & infusion center, diagnostic imaging, emergency services, heart services, laboratory & pathology, orthopedics, rehabilitation, sleep disorders center, surgery, & walk-in clinic. This hospital provides high quality medical care and advanced diagnostic service to residents of Manistee County and surrounding communities. Manistee Hospital is staffed by more than 350 employees and served by 50 specialists.

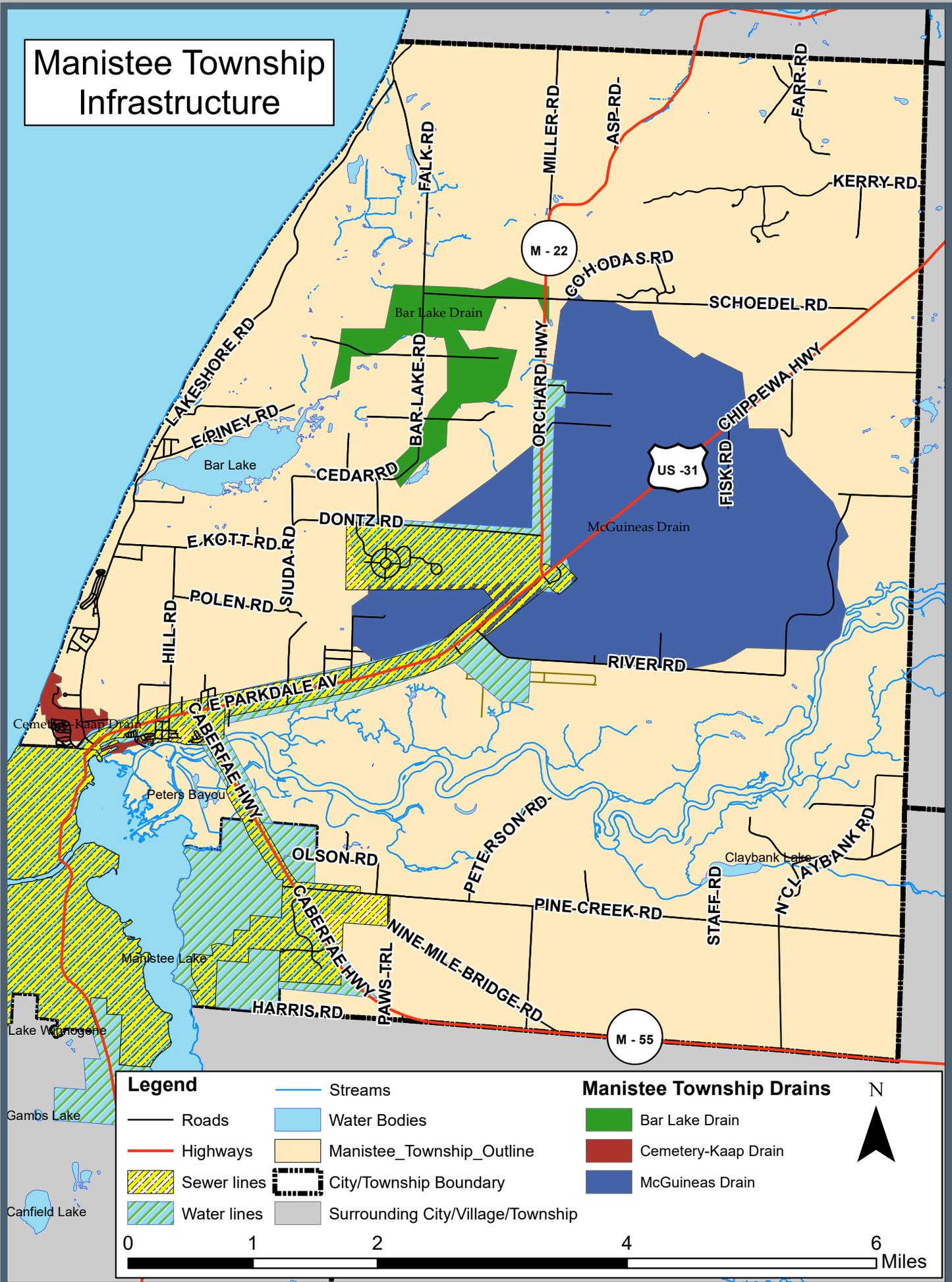
Meijer is the largest retail outlet within the Township that draws customers from far ranging areas of Manistee County. A retail study conducted around 2010 displayed large retail leakage outside of Manistee County. This study identified millions of dollars that were being spent by Manistee County residents outside of the County in retail destinations such as Traverse City, Ludington and Cadillac. It was thought that the siting of Meijer in the Township would assist in preventing this retail leakage, and it likely has, but no follow-up study has been conducted to determine to what degree.

Manistee Township is home to Oaks Correctional Facility which is comprised of eleven main buildings containing approximately 262,673 square feet of floor space. These buildings include: one segregation unit; five general population housing units; two Level II units; and three Level IV units. Male prisoners aged 18 years of age or older reside in seven of the buildings.

2.2.5: Public Services and Institutions

The Manistee County Sheriff Department is situated along US-31 in Manistee Township. Law enforcement divisions of the Sheriff's Department include public safety, jail, K-9, Animal Control, Court Security, Marine Division, and Snowmobile Patrol. The services performed by the Department include civil, process, gun registration, incident & insurance claims, patrol & property checks, FOIA requests, and citizen complaints. Located in Manistee Township is the Manistee Intermediate School District. This is a regional service agency that provides instructional and administrative service to four public schools districts, two public academies and two non-public schools. These entities include Bear Lake schools, Kaleva Norman Dickson schools, Manistee Area Public schools, Onekama Consolidated schools, Manistee Catholic Central, Trinity Lutheran Schools, Casman Academy and Michigan Great Lakes Virtual Academy. The Manistee Township Fire Department is located on Hill Rd and provides Fire Protection for the Township and surrounding area through mutual aid agreements. The fire department is staffed by 21 volunteers and 1 cadet under a chief and captain; see appendix A for a full equipment list. Manistee Township Hall is located on Holden Street and houses the elected and staff offices for the Township. The Township Board meets the second Thursday of each month. The Township Planning Commission meets the first Wednesday of each month. The Township Hall is open for residents inquiring about tax collection, zoning and/or other services provided by the Township.

Manistee Township Infrastructure



Map 6: Infrastructure Map

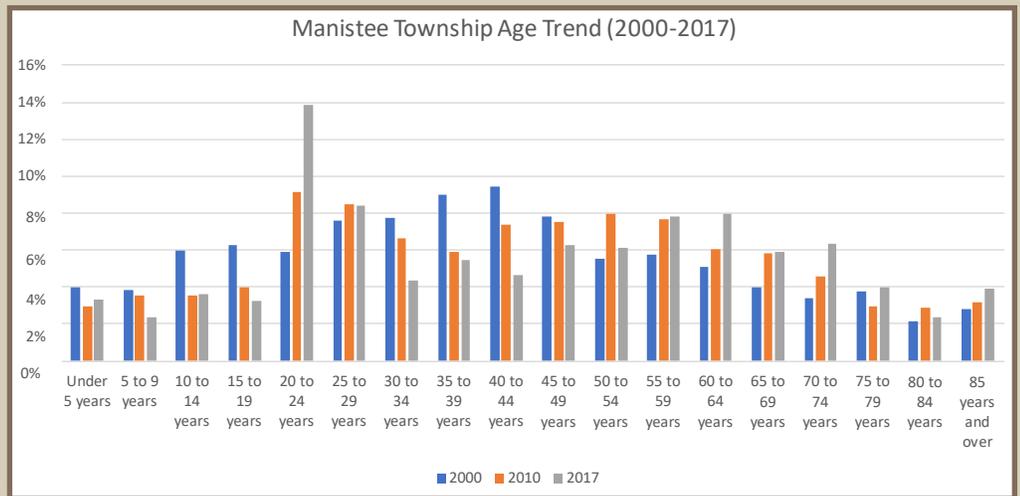
3: Socio-Economic Profile

This socio-economic profile was developed using data from the US Census Bureau American Factfinder 2017 Community Survey Data and in a few cases the 2015 American Community 5-Year Estimates. The data gathered from the 2017 survey is considered short-form when a comparison is drawn to what is typically gathered during the Decennial Census, but still provides valuable data for land use planning purposes. It is important to note some of the data is skewed, as prisoners are counted in certain statistical measures. The distortion of data occurs strictly to population and gender in the data captured within this profile. Income, poverty and household data are not impacted, as they are strictly gathered for households and householders. The prison population can be utilized for correction of the skewed data of total population and gender as the prison is for male convicted offenders with a population of 1,154 inmates.

3.1: Population

3.1.1: Manistee Township Age Trend (2000-2017)

The following graph depicts the number of individuals comprising the total population of Manistee Township over a 17 year period. Residents are broken into different age cohorts based on 5-year ranges from under 5 years old up to 85 years and over. The graph depicts that the population is aging over a 17 year period as expected, and that the older age cohorts are gaining population more rapidly than it is being replaced.



Source: 2017 American Community Survey - U.S. Census

One has to take into consideration that this particular data, as it deals with population, is influenced by the inmates of the Oaks Correctional Facility. It is next to impossible to obtain the inmates demographics at the facility and determine their distribution across the age cohorts, but in researching overall statistics of the prison population in Michigan, a few details can paint a bit of a picture. The average age of a male prisoner in a Michigan correctional facility is 32.5 years old, with 41% of individuals sentenced to prison between 20 and 29 years old, and 27% of the population sentenced between 30 and 39 years of age. In looking at the current age of prisoners in Michigan, 75% of the prison population is under 50 years of age. From this information we can deduce that the graph above is likely impacted by age cohorts that outline ages 20 to 45. Until we do know the actual demographics of the prison, this is the best estimation as to the impact on the data. Regardless, the data does display that the population is aging and shifting in the cohorts of 55+ and the population is not being replaced in the younger cohorts.

3.1.2: 2017 Population by Age

The following graph depicts the number of individuals comprising the 2017 population for three different locations including Manistee Township, Manistee County and the State of Michigan. Residents are broken into different age brackets based on 5-year cohorts. Percentages in each category equate to 100% of the total population for the specific category. Manistee Township displays fewer residents that are younger than 19 years of age than both Manistee County and the State of Michigan. Similar to the data capturing the Township Age Trend, the prison population at the Oaks Correctional Facility is also impacting this data. It is obvious that there is a very large increase in population to the 20-24 and 25-29 age cohorts and there is little doubt that this is directly linked to the prison population. It is obvious that the data does display that the Township has a much greater population of residents 45 years of age and older.

3.1.3: Manistee Township Population Trend

Population change is simply the change in the number of people in a specified area during a specific time period. Demographics is the study of population statistics, their variation and its causes. These statistics include birth rates, death rates, migration rates and sex ratios. The population of Manistee Township has seen mostly a steady increase since the 1960 data sets through 1980, with a significant decrease in 1990. This coincides with observations of long time residents whom have stated that migration from the area occurred after the closing of industrial sites and operations around Manistee Lake, which supported many households.

A sharp increase in population in the 2000 census year aligns with the siting of the Oaks Correctional Facility and the subsequent addition of the prison population. Since 2000, the Township has seen a modest increase in population.

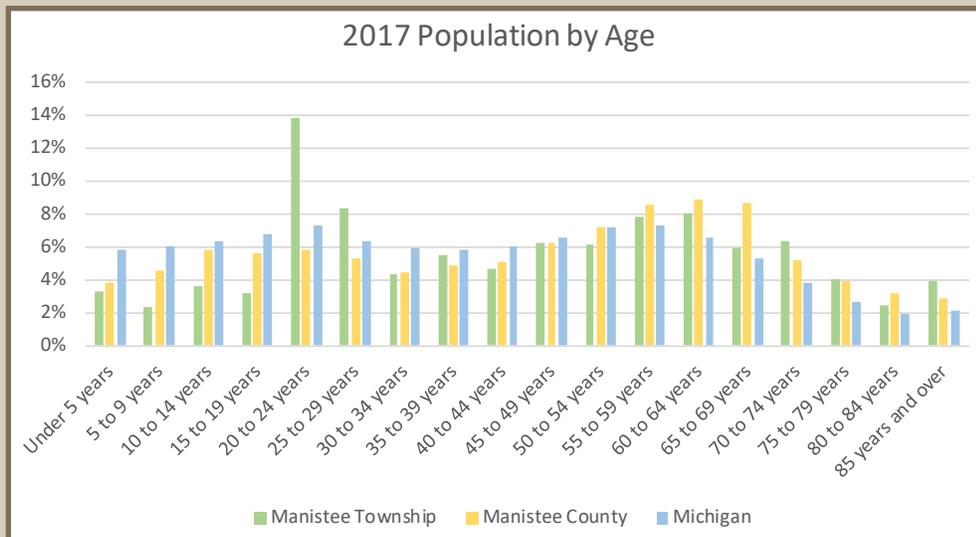
3.2: Employment, Income & Earnings:

3.2.1: Industrial Employment:

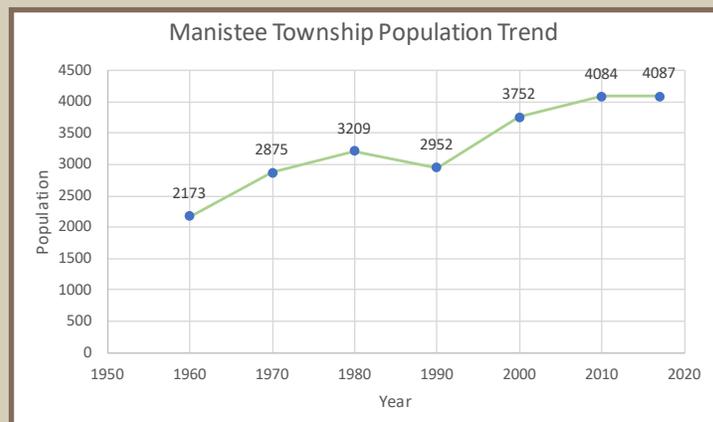
The employed civilian population over 16 years of age in Manistee Township was 1,243 individuals according to the 2015 Five-Year Estimate. Industries which employ the most individuals in Manistee Township are Public Administration, Health Care & Social Assistance, Retail Trade and Manufacturing. These industries accounted for almost half of the employment for the employed population.

This is of no surprise with the Munson Medical Campus and ancillary medical offices, the Oaks Correctional Facility (Public Administration) and Meijer all sited within the Township and the manufacturing facilities that remain around the Manistee Lake Area in adjacent local units of government.

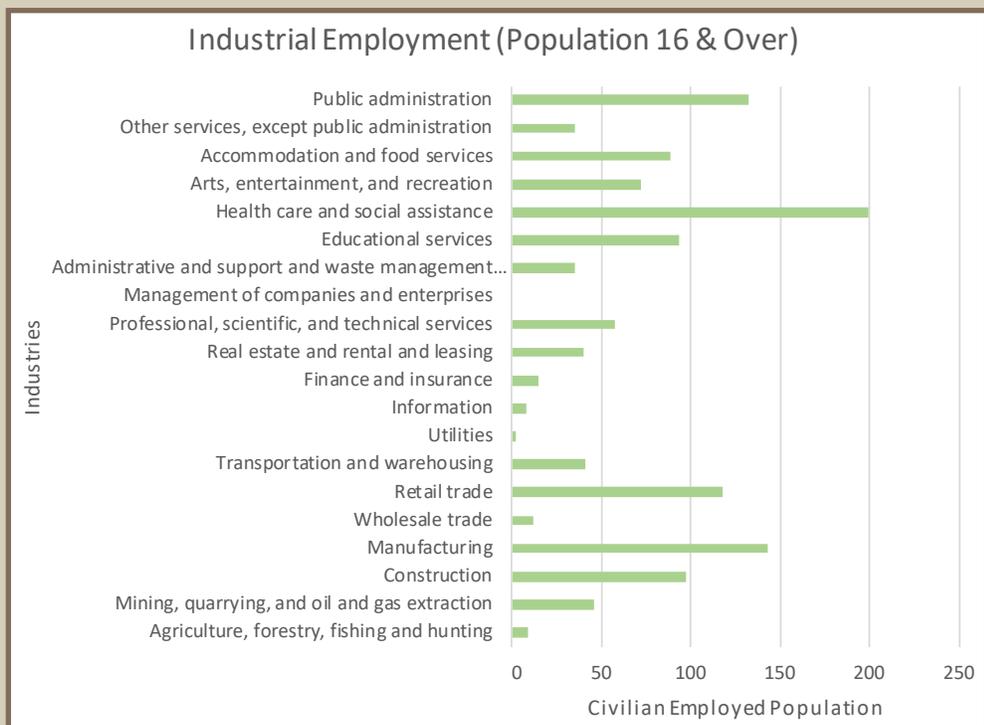
The industries that are providing employment opportunities for the public should be supported by working with and promoting these industries through local economic efforts.



Source: 2017 American Community Survey - U.S. Census



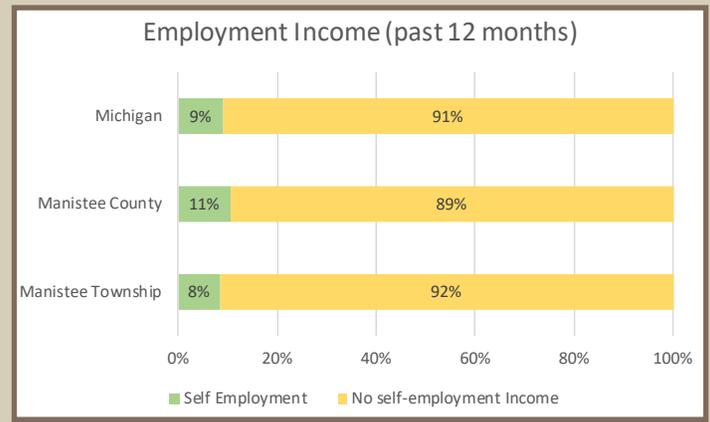
Source: 2017 American Community Survey - U.S. Census



Source: 2015 American Fact Finder

3.2.2: Employment Income

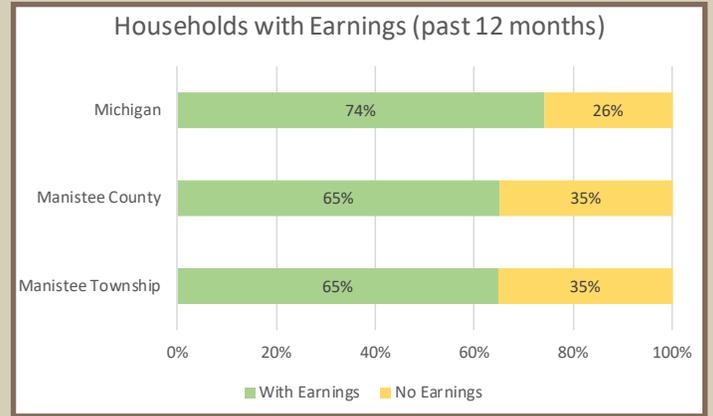
Self-employment income is earned from carrying on a “trade or business” as a sole proprietor, an independent contractor, or some form of partnership. Non-self-employment income means income which consists of salary, wages, allowances, overtime pay, pension, annuity, directors’ fees, bonuses, management fees, gratuities, retiring allowances, extra salary or any emolument of any other kind paid or payable in relation to the taxpayer’s employment. Manistee Township has a lower rate of self-employment than both Manistee County and the State of Michigan. This merely conveys that the employment income in the Township is largely derived from an hourly or salaried position within a business or company. A lower percentage of employed civilians within the Township than both the State and County own or operate their own business according to this data.



Source: 2017 American Community Survey - U.S. Census

3.2.3: Households with Earnings (past 12 months)

Household earnings is a measure of the combined incomes of all people sharing a household or place of residence. It includes every form of income including salaries and wages, retirement income, near cash government transfers like food stamps, and investment gains. The Michigan average for households with earnings is greater than both the Township and County average. With inclusion of all forms of income including retirement it can be difficult to decipher the lower percentage. The lower percentage may be due to the aging population. These aging households may not be listing any earnings within the households, as they may be living off of investments which would not count towards earnings, and this may account for a lower percentage of Township households with earnings.



Source: 2017 American Community Survey - U.S. Census

3.2.4: Wage or Salary Income (past 12 months)

The essential difference between a salary and a wage is that a salaried person is paid a fixed amount per pay period and a wage earner is paid by the hour. Someone who is paid a salary is paid a fixed amount in each pay period, with the total of these fixed payments over a full year summing to the amount of the salary. Manistee Township and Manistee County show a lower percentage of households with wage and salary income than compared to the State of Michigan. This is very likely due to the higher level of retirees within both the Township and County as a whole. This lower percentage is nothing to cause concern as will be reinforced later in this chapter when interpreting poverty levels.



Source: 2017 American Community Survey - U.S. Census

3.2.5: Social Security Income (past 12 months)

Social Security benefits are payments made to qualified retirees, disabled people, and to their spouses, children, and survivors. The current law, after several amendments, encompasses several social insurance and social welfare programs, including the issuance of Social Security benefits. Social Security benefits can be collected as early as age 62 depending on circumstances, but are typically paid out between the retirement ages of 65 and 67.

The Township has a higher percentage of households receiving social security than both Manistee County and the State of Michigan. Manistee County doesn't lag too far behind the Township in terms of percentage, again, an indication that both the Township and the County encompass many retirees among other qualifiers that are entitled to Social Security benefits

3.2.6: Retirement Income (past 12 months)

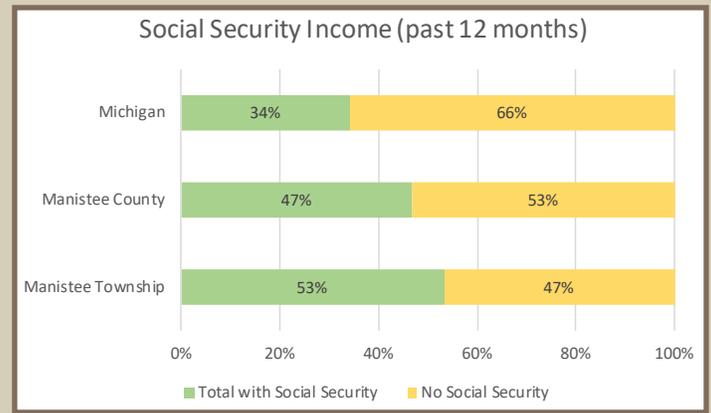
Retirement income is the amount of money an individual earns after retiring based on retirement assets such as, Social Security allowances, pensions, stocks, mutual funds, savings accounts, CDs, home equity funds, annuities, insurance, rental income, royalties, or inheritances. The data continues to reinforce other statistical measures that acknowledges that the population harbors many retirees in both the Township and County. Again, the Township leads the County by several percentage points, but both lead the State of Michigan by a significant margin, with the Township having 13% more households with retirement income than the State.

3.2.7: Median Income (Families & Children Status)

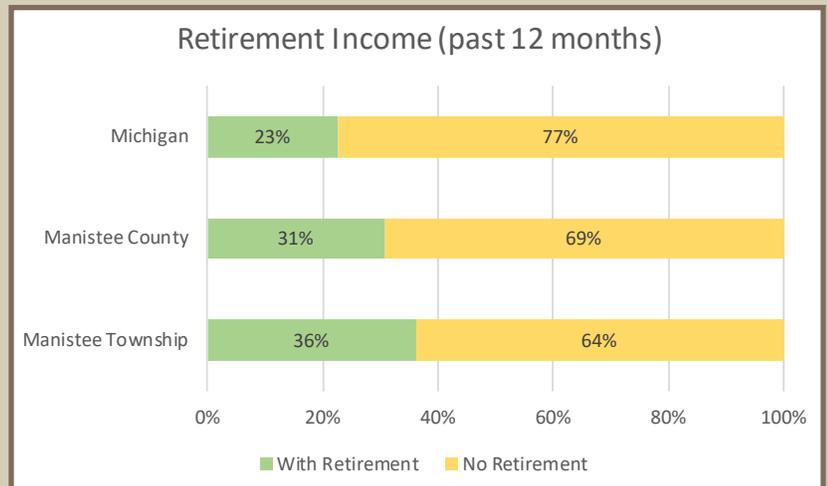
Median income defines an exact of the amount of income each family unit within a jurisdiction makes annually. Household type and children status are quantified in the graph. The data displays that the Township maintains a higher median income for families across all ranges than the County, but lags behind the State in all but one family status. It is tough to draw a comparison against State-wide statistical medians as other areas of the State have higher costs of living which also often coincides with greater wage or salary incomes.

3.2.8: Median Income (Households & Householder Age)

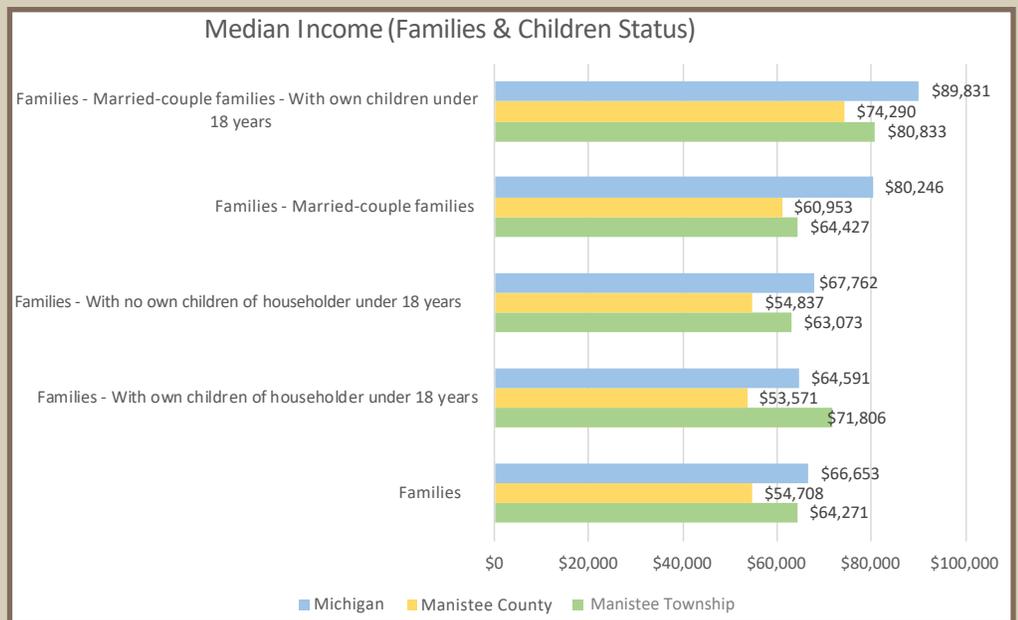
A householder is a person who owns or rents a house and is considered the head of a household. This graph denotes the median income for households broken out by age, amount of income and location. Manistee Township has a greater median income for households than both the State of Michigan and Manistee County in all but one circumstance: householders 45-65 years of age, where the median income is only \$561 less than the State. The income data presented within this graph coupled with the data presented within this Income and Earning sub-section of the plan provide a positive outlook for sustaining households and families.



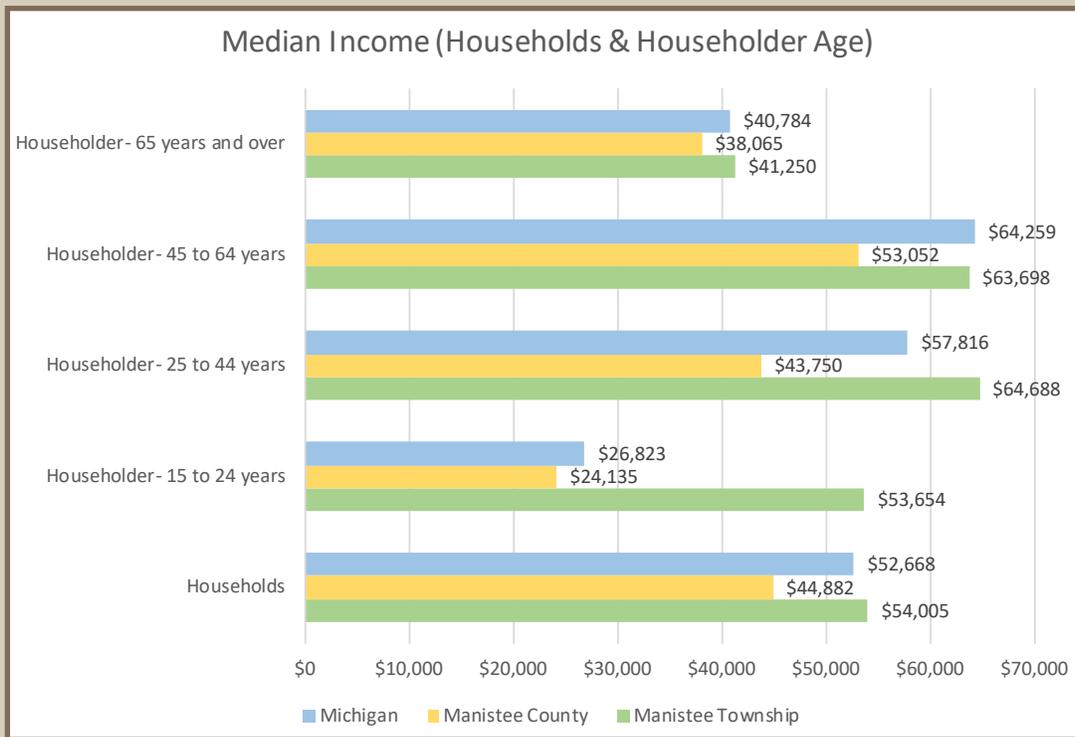
Source: 2017 American Community Survey - U.S. Census



Source: 2017 American Community Survey - U.S. Census middle



Source: 2017 American Community Survey - U.S. Census

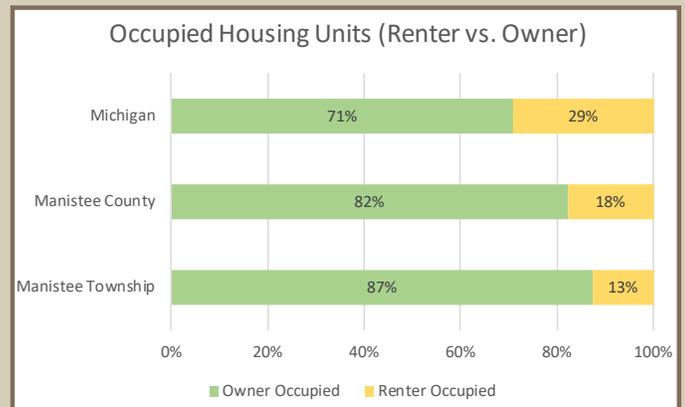


Source: 2017 American Community Survey - U.S. Census

3.3: Housing & Housing Costs:

3.3.1: Occupied Housing Units (Renter Vs. Owner)

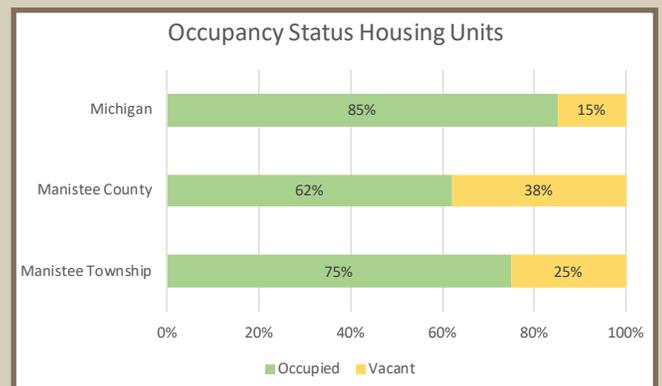
Owner-occupied means that the owner lives in the unit. Renter-occupied refers to those units where the owner does not live in the unit. Owner-occupied + renter-occupied is equal to total occupied housing units. Manistee Township has both a larger percentage of owner occupied housing units than both the State and County. This status of owner occupied bodes well for home ownership, but also provides a snapshot that is known from other studies. That snapshot results in fewer opportunities for rental housing within the community.



Source: 2017 American Community Survey - U.S. Census

3.3.2: Occupancy Status Housing Units

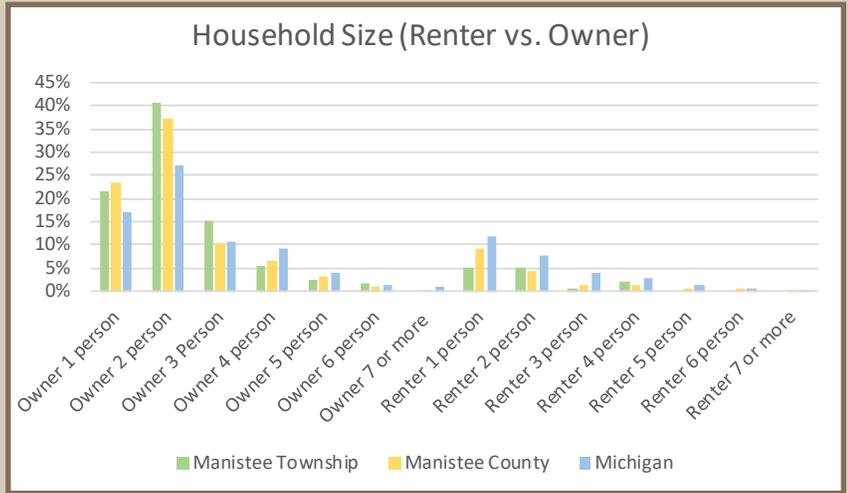
A housing unit is vacant if no one is living in it at the time of the census. In addition, a vacant unit may be one which is entirely occupied by persons who have established residence elsewhere. This describes seasonal residents. New units not yet occupied are classified as vacant housing units if construction has reached a point where all exterior windows and doors are installed, and final usable floors are in place. There are more occupied housing units in the State of Michigan at 85% than both the County and Township. This data points to the seasonal population that is present in both the Township and County, and is supported by the NW Michigan Seasonal Population Study through Networks Northwest.



Source: 2017 American Community Survey - U.S. Census

3.3.3: Household Size (Renter vs. Owner)

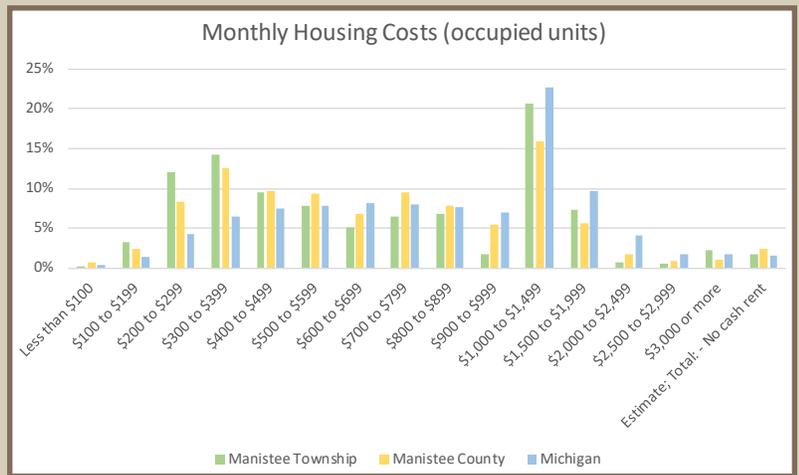
Most households in Manistee County, Manistee Township and the State of Michigan are occupied by 1 or 2 individuals. As you increase the household size, the trend in percentages decreases for Manistee Township and the County when compared across government units. The same can be said for both owner and rental occupied units.



Source: 2017 American Community Survey - U.S. Census

3.3.4: Monthly Housing Costs (occupied units)

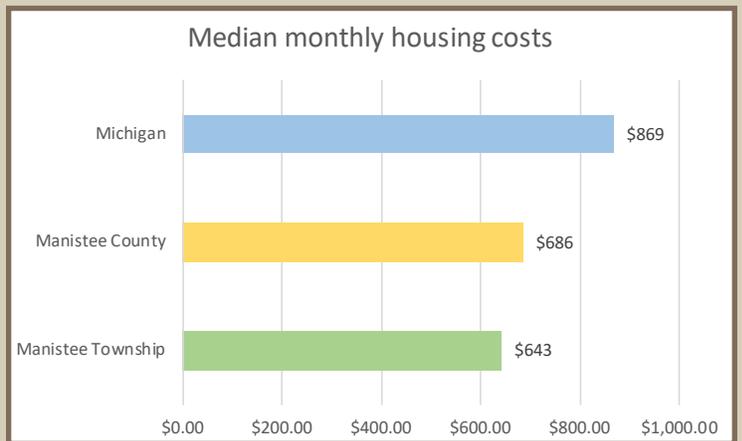
Selected monthly owner costs are the sum of payments for mortgages, deeds of trust, contracts to purchase, or similar debts on the property (including payments for the first mortgage, second mortgages, home equity loans, and other junior mortgages; real estate taxes; fire, hazard, and flood insurance on the property; utilities (electricity, gas, and water and sewer); and fuels (oil, coal, kerosene, wood, etc.). It also includes, where appropriate, the monthly condominium fee for condominiums and mobile home costs (installment loan payments, personal property taxes, site rent, registration fees, and license fees). The following graph depicts Monthly Housing Costs for 15 different ranges that display 100% of housing costs for the jurisdictions listed. Manistee Township displays a greater percentage of housing costs in the \$200-\$299, \$300-\$399 and \$400-\$499 range than the State, and to a lesser extent Manistee County. This is a relative low range for housing costs and may be in part due to the demographics of the community having greater amounts of retirees that have paid off their mortgages lowering housing costs.



Source: 2017 American Community Survey - U.S. Census

3.3.5: Median Monthly Housing Costs

Monthly housing costs are developed from a distribution of “Selected Monthly Owner Costs” for owner-occupied units and “Gross Rent” for renter-occupied units. The data displays lower costs than the State and County, and could be accounted for through retirees who have paid off their mortgages.



Source: 2017 American Community Survey - U.S. Census

3.4: Education:

3.4.1: Educational Attainment of Householder

Educational attainment is a term commonly used by statisticians to refer to the highest degree of education an individual has completed. The educational attainment of a householder is indicative of the highest amount of education as well as house ownership status. Educational attainment by a householder is the most important educational statistical measurement for Manistee Township as it incorporates only householder data. Educational data that is not tied to households, householder or family is impacted by the presence of the Oaks Correctional

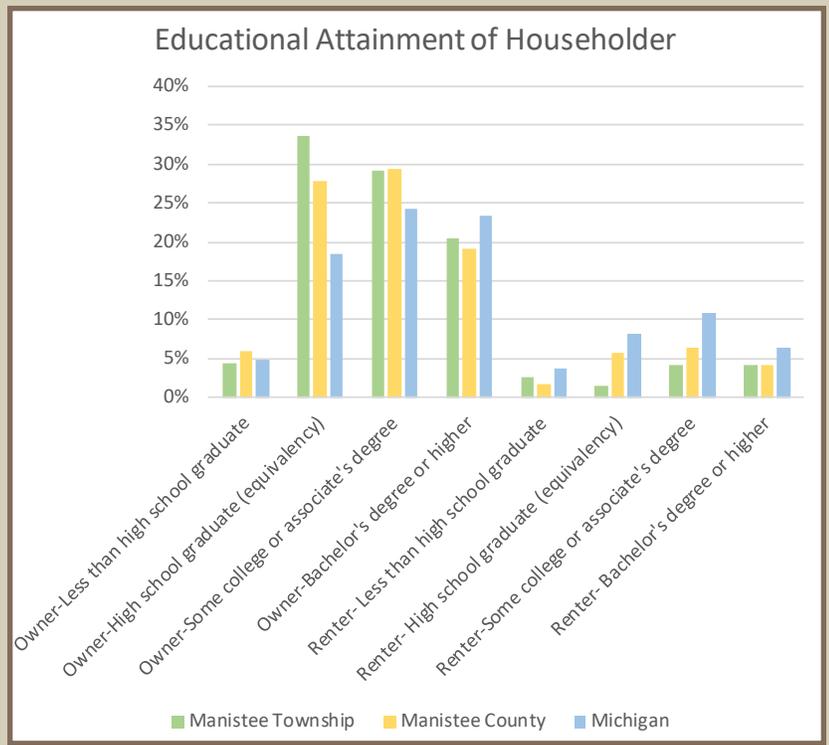
Facility as inmates are captured within Educational Attainment data that applies to the population as a whole. As is displayed in the graph, Manistee Township Householders have a High School Education or higher at 83%. This is greater than the County average at 76% and the State average at 66%. This bodes well for educational attainment and the prospect that greater education leads to homeownership.

3.4.2: Educational Attainment (18-24 Years Old)

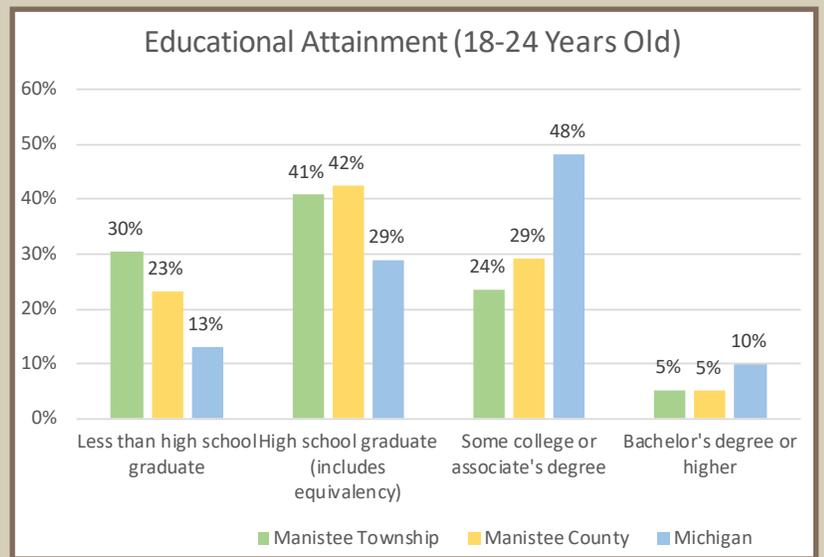
The following graph depicts the educational attainment of the State, County, and Township residents aged 18-24 years old broken into percentages with a sum of 100% for each cohort. The educational data for population is impacted by the Oaks Correctional Facility and the inclusion of inmates within the data. As is displayed in the graph there is a large proportion of 18-24 years old that have less than a High School Graduate when compared to the County and State. This doesn't align with the ownership and renter data of a householder displayed above, which shows strong educational attainment. A high percentage of the population having a low educational attainment would show in the householder data if prison population were to be included as a renter or owner.

3.4.3: Educational Attainment (25 Years & Older)

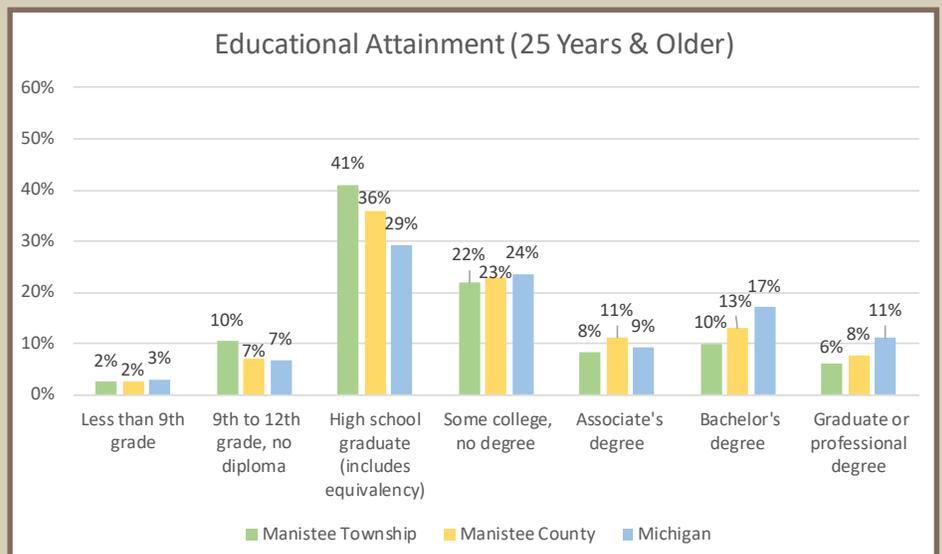
The following graph depicts the educational attainment of the State, County, and Township residents aged 25 years or older broken into percentages with a sum of 100% for each cohort. Similar to the educational attainment for 18-24 years old, this data is impacted by the Oaks Correctional Facility inmates, as it does not account for households or families, but rather the entire prison population. In reviewing the data, it looks to have less of an impact on the statistical sample in the less than High School education cohorts. One thought is that inmates whom started their incarceration between the age of 18 and 24 have worked to obtain a high school diploma or equivalency by the time they reach the age of 25. Regardless of the circumstances for closer alignment to the County and State in educational attainment for the population aged 25 years and older, these statistics support a more educated population as a whole.



Source: 2017 American Community Survey - U.S. Census



Source: 2017 American Community Survey - U.S. Census



Source: 2017 American Community Survey - U.S. Census

3.5: Households & Families:

3.5.1: Household Family Characteristics

Household size is defined by the number of individuals residing in a household based on different characteristics. The graph displays households in Manistee Township consisting of more married couples with family than both the County and State. In the case of female householder with no husband present, the township is less than the County and less than half of that of the State. This bodes well for family households in the Township. Non-family households are at pace with the State and slightly lower than the County.

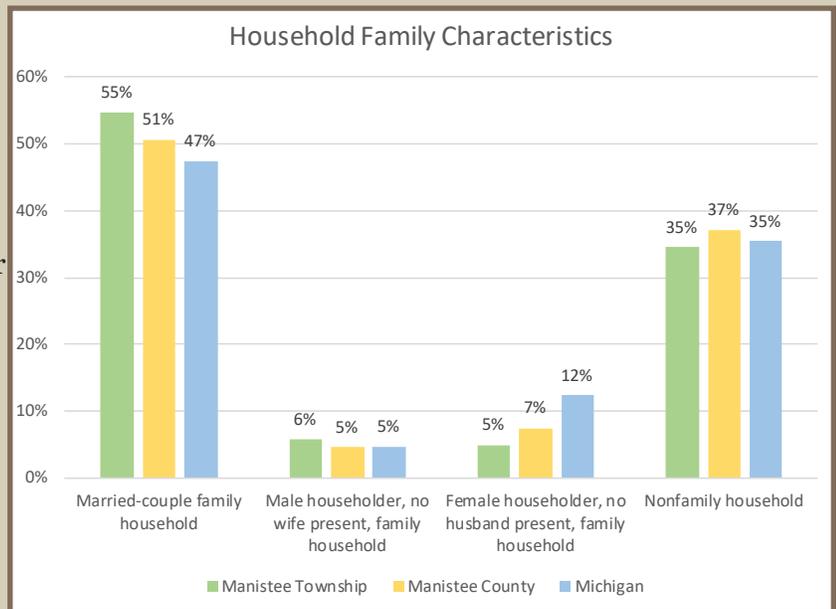
3.5.2: Average Household Size

Household size is defined by the number of individuals residing in a household based on different characteristics. The graph displays that total average household size for the Township is less than both the County and State, which may point towards an aging population with less children in the household. This is reinforced with the married couple household statistic which displays that family size for married couples is less in the Township than the County and State, which would point towards a larger percentage of “empty nesters”. An interesting statistic is the larger family size of a male householder with no wife than both the County and State.

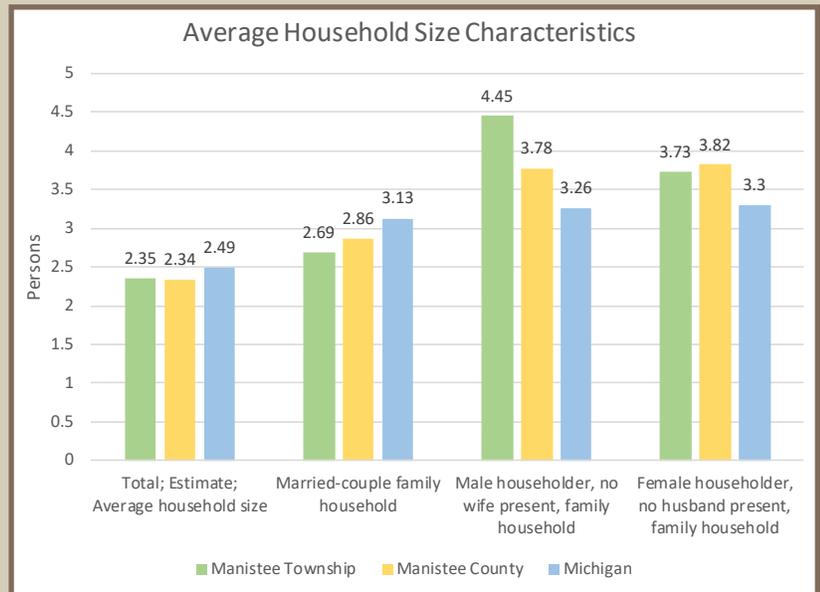
3.6: Poverty Levels:

3.6.1: Population Below Poverty Level

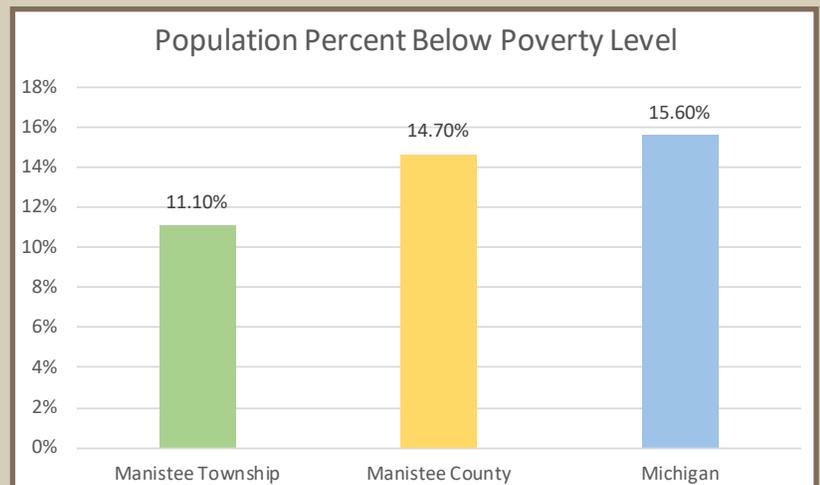
The Federal Poverty Level (FPL), or the “poverty line” is an economic measure that is used to decide whether the income level of an individual or family qualifies them for certain federal benefits and programs. The FPL is the set minimum amount of income that a family needs for food, clothing, transportation, shelter, and other necessities. Poverty is a state or condition in which a person or family lacks the financial resources and essentials for a minimum standard of living. Poverty means that the income level from employment is so low that basic human needs can’t be met. Poverty-stricken people and families might go without proper housing, clean water, healthy food, and medical attention. The Percentage of population below poverty line in Michigan is 15.6%, while Manistee County is 14.7% and Manistee Township is 11.1%. Poverty statistics are not impacted by the prison inmates.



Source: 2017 American Community Survey - U.S. Census



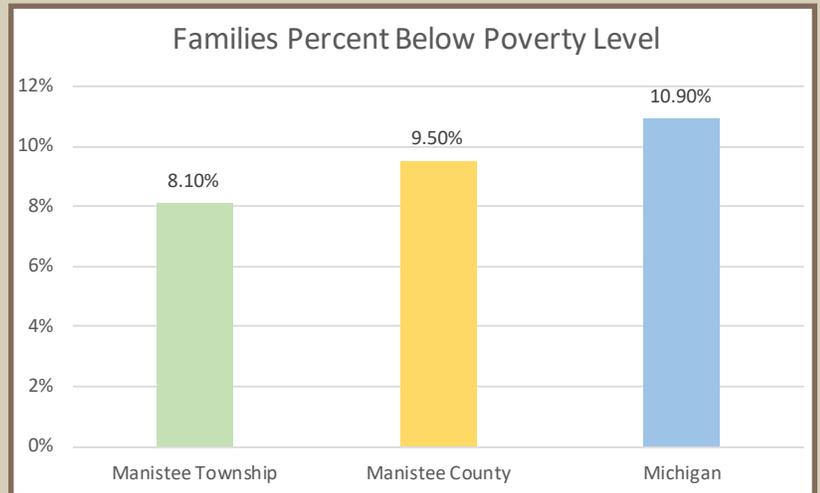
Source: 2017 American Community Survey - U.S. Census



Source: 2017 American Community Survey - U.S. Census

3.6.2: Families Percent Below Poverty Level

With both the population poverty data displayed above and the family population percentages portrayed to the right, Manistee Township displays a lower level of poverty than both the County and State. This shows that much of the population and families in the Township are in a strong financial position, although having any percentage of poverty amongst the population is a hindrance to aspects of the community and the Township. Support for those in poverty through increased education, assistance with childcare, transportation and healthcare should be on the radar whether through a private or public network.

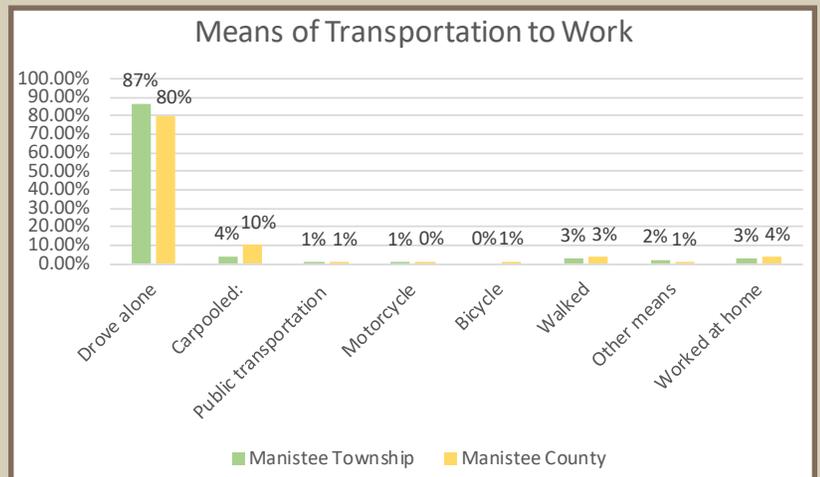


Source: 2017 American Community Survey - U.S. Census

3.7: Transportation and Work Commute:

3.7.1: Means of Transportation to Work

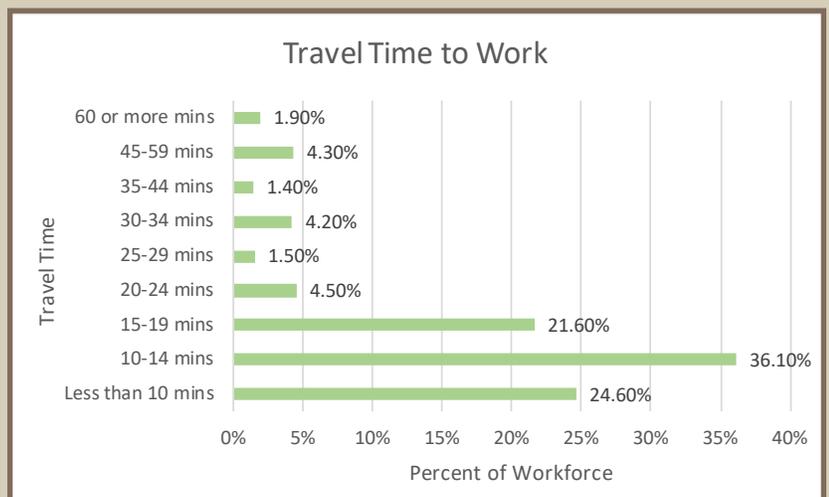
Means of Transportation to work include any of the different kinds of transportation used to carry people from home to the workplace. The following graph depicts the Means of Transportation to Work for Manistee County and Township for workers aged 16 years or older. The vast majority of workers in the Township drive alone, and at a greater percentage than the County. The number of Township workers carpooling is 6% less than that of the County. As we'll see in the remaining commuter data, Township workforce travel time to work is minimal. Therefore, with lower commuter times it is not surprising that more of the workforce commutes alone and not in a carpool.



Source: 2017 American Community Survey - U.S. Census

3.7.2: Travel Time to Work

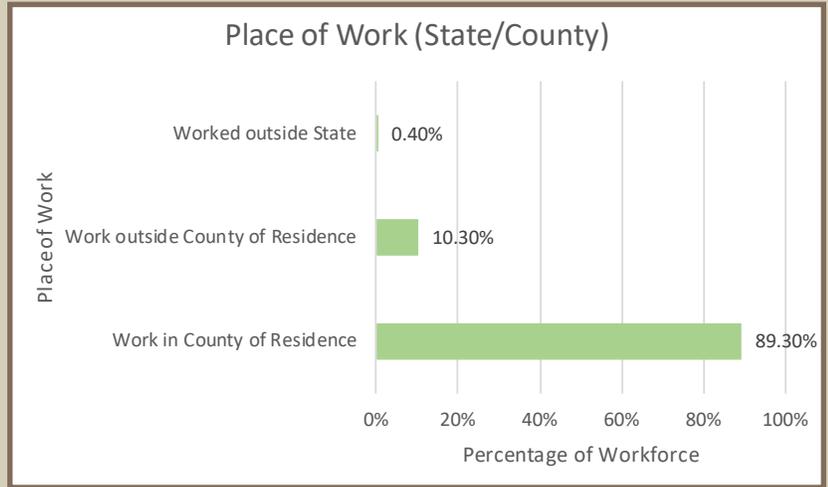
Commuter travel time to work is the length of time of a commute in minutes from home to the workplace for workers aged 16 years and older in Manistee Township. It is evident from the data that the majority of commuters, 60.7% travel less than 15 minutes to work during their commute. With 82.3% of commuters traveling less than 20 minutes to work. The location of Manistee Township just north of the City of Manistee is in a position that workers traveling 20 minutes or less to work are most likely working in Manistee Township or in the vicinity of Manistee Lake. The majority of the industry in Manistee County is located around Manistee Lake, with other large employers such as the casino, hospital, Meijer and prison all being located within the confines of the Township.



Source: 2015 American Fact Finder

3.7.3: Place of Work (State/County)

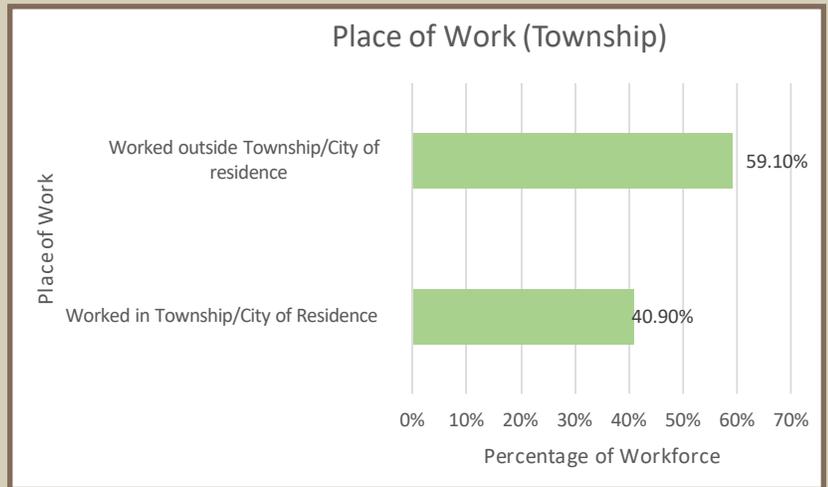
Following the commuter statistics that display the vast majority of workers are remaining within 20 minutes of their residence, the place of work in relation to the State and County provides direct information on how many workers are remaining within Manistee County. The graph shows that 89.3% of the workforce is staying within the County for their place of work, this aligns well with the 82.3% of workers who travel 20 minutes or less to work each day. Traveling greater than 20 minutes North or South of the Township in many cases carries one over the County line into a neighboring County.



Source: 2015 American Fact Finder

3.7.4: Place of Work (Township)

The place of work graph in (Township/City) details if the worker is remaining within their Township of residence for work. As one can see, a substantial amount of workers remain within the Township for employment at 40.90%. The remaining majority of workers that are traveling outside of the Township, are still remaining within the County for work. Travel times correlate to these workers having employment in the industries and other employment positions around Manistee Lake, within the City of Manistee, Stronach and Filer Townships. This data is important, as it shows that



Source: 2015 American Fact Finder

employment opportunities are close to a workers residence in the vast majority of cases, and information concerning workers and employment point towards the importance of maintaining a residence close to the work place. The need for housing as has been shown through other studies. It would be interesting to gather a profile from employers of the residence locations of their workers according to Township/City.

4: Public Input

4.1: Here's what residents said they **WANT** to see in Manistee Township



4.1.1: Rural Areas

- Areas devoted to agricultural crops.
- Natural vegetation lining the road (rather than prescribed landscaping).
- Views of lakes, orchards, and open space.
- Agricultural and residential buildings set back from roadways protecting the view shed.
- Overhead utility lines with lighting affixed to poles.
- Two travel lanes on roadway and at key intersections areas with left turn and right turn deceleration lanes provided to maintain traffic flow.

4.1.2: Suburban Areas

- Landscaped vegetation along roadway, between parking/building areas and pedestrian walkaways.
- Designated pedestrian sidewalk adjacent to roadway.
- Designated bike lane along roadway.
- Signage is placed on monument structures and/or on building;
- Single row of parking allowed in front of building with additional parking on sides or rear.
- Building set at a "zero lot line" allowing for placement up to the right-of-way.
- Two travel lanes with a boulevard for controlled left land turns and for protection of pedestrians at road crossings.
- Overhead utilities buried underground.
- Pedestrian level lighting adjacent to walkway.

4.1.3: Urban Areas

- Vegetation along roadway separating pedestrian walkways from roadway.
- Designated pedestrian sidewalk adjacent to roadway.
- Signage is placed on a monument structure and/or on buildings.
- Parking situated along side and rear of building.
- Buildings set at a zero lot line immediately adjacent to roadway.
- Two travel lanes with a center left hand turn lane.
- Overhead utilities buried underground.
- Pedestrian level lighting adjacent to walkway.

4.2: Here's what residents said they **DO NOT** want to see in their Township



Large, extensive parking in front of buildings without any landscaping



Dirt paths rather than sidewalks



No landscaping between sidewalks and the road



Two travel lanes with a center left turn lane and multiple curb cuts



Temporary, pole, and very tall signs



Views in rural areas disturbed by encroaching development

5: Future Land Use Analysis (Cause and Actions)

5.1: Natural Resources Actions

The Natural resources contained in this section are regulated by State and Federal Agencies. Manistee Township works cooperatively with these agencies to ensure that their development standards are achieved.

5.1.1: Shoreline Erosion

Cause:

Fluctuating water levels have played havoc along the Lake Michigan shoreline. Due to increasing water levels, property owners have had to take immediate and costly action to protect structures which are threatened by excessive shoreline erosion.

Action:

Support bluff setbacks enacted and regulated by the Department of Environment, Great Lakes and Energy (EGLE) with the State of Michigan. See map 7.

5.1.2: Wetlands

Cause:

Wetlands connected to the Great Lakes, Great Lakes waterways, and those that are 5 acres or greater are regulated by the State of Michigan. The State requires a wetland permit in order to perform dredging, filling or construction within wetland areas.

Action:

Article 25 of the current Manistee Township Zoning Ordinance regulates wetlands through the provisions of a wetland district. The current district does not align with the wetland boundary provided by the State of Michigan (**The State of Michigan Wetland Boundary is created by overlaying the "National Wetland Inventory Boundary" with the "Hydric Soils Boundary" from the Soil Survey Geographic database SSURGO and displaying where the two datasets intersect.*) The Township should amend Article 25 to become a wetland overlay district that applies to all wetlands of 5 acres or more within the Township.

5.1.3: Steep Slopes

Cause:

Development on excessively steep slopes can enhance erosive forces of water, destabilize soils and lead to increased erosion.

Action:

Limit development in areas of steep slopes by protecting slopes of 25% or greater. See map 7.

5.1.4: Waterway Buffers

Cause:

Lack of vegetation along surface waters may negatively affect water quality, promote erosion and limit wildlife habitat.

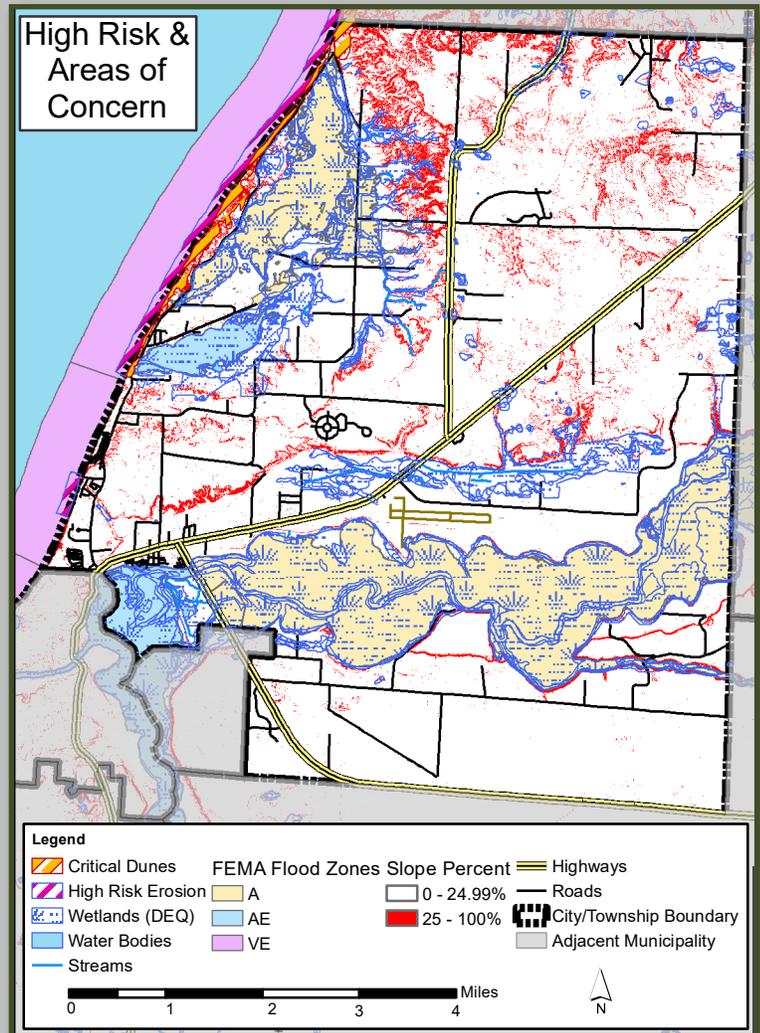
Action:

Implement a vegetative buffer around all surface waters. A determination for the preservation of trees of a certain size (measured by diameter at breast height, DBH) should not be allowed to be removed unless dying, diseased or invasive. Provide provisions for removal of brush and tress for riparian access and preservation of view-sheds.

5.1.5: Floodplains

Cause:

Manistee Township is a participant in the National Flood Insurance Program. FEMA is preparing to adopt new



Map 7: High Risk and Areas of Concern

floodplain maps for the Lake Michigan coastline and connected waters. Adjustment in flood zone boundaries may include additional property owners who may be required to obtain flood insurance. Development within the 100 year floodplain requires structures to be built to a flood standard, and for structures currently in the floodplain to meet standards if they were to be expanded or reconstructed.

Action:

Enforce FEMA standards regarding floodplain development as required.

5.2: Transportation Actions

5.2.1: Primary Trunk-line/Highway Accessibility

Cause:

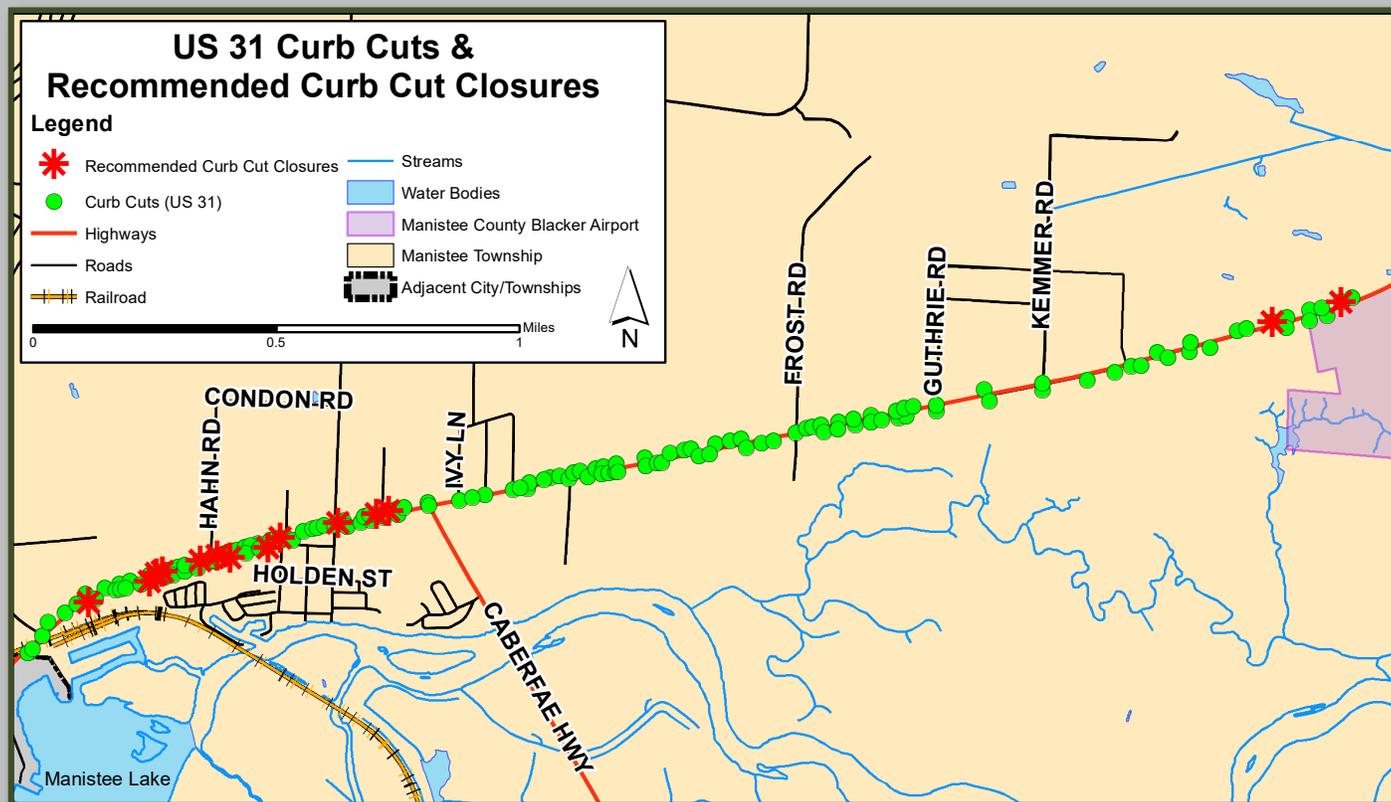
Significant vehicular traffic along the US-31 corridor, along with excessive curb cuts, limited shared access and limited interconnections among neighboring parcels has led to traffic congestion, particularly during peak hours and seasons.

Action:

Access Management Standards of varying regulatory levels should be implemented along the entirety of the US-31, M-22 and M-55 corridors. These standards should include provisions for:

- Shared Access
- Frontage drives
- Cross-lot connections
- Closure of Curb Cuts (See map 8 for recommended curb cut closures provided by MDOT, this data should be updated as MDOT updates plans.)

5.2.2: Appropriate Consideration of Inclusion of Multi-Modal Transportation



Map 8: US 31 Curb Cut Recommended Closures

Cause:

The State of Michigan, through enabling legislation, created a “Complete Streets Policy” which promotes the inclusion of multi-modal transportation features such as sidewalks, crosswalks and bike-lanes.

Action:

Adopt complete streets resolution and policy, which promotes inclusion of these non-motorized transportation features in roadway design and construction.

5.2.3: Incorporation of Multi-Modal Transportation

Cause:

Limited routes for non-motorized transportation and lack of safe pedestrian crossings along major roadways.

Action:

Incorporate roadway design that includes multi-modal transportation options such as sidewalks, bike-lanes and pedestrian crossings. See multi-modal roadway sectional below:

5.2.4: Participate/Inclusion in Transportation Planning Efforts

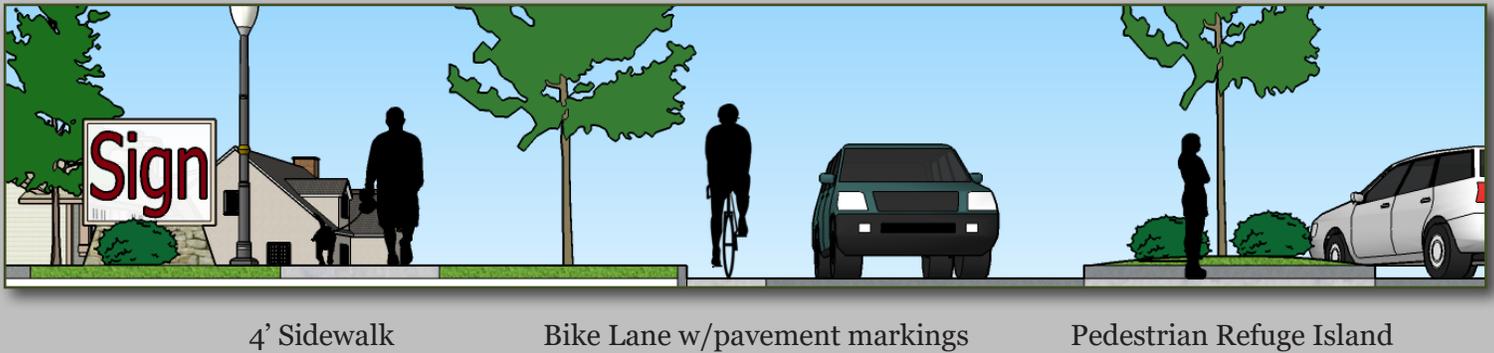


Diagram 1: US 31 Road Sectional Recommendation

Cause:

Participation in past and on-going planning efforts that have provided sound recommendations for future actions relating to multi-modal and non-motorized transportation.

Actions:

Recommend and adopt existing plans which promote multi-modal transportation and continue participation in similar processes. Plan actions are listed below:

- Recommend/Adopt: 2017 US-31 Corridor Enhancement Plan.
- Recommend/Adopt: 2020 Manistee Lake Area Non-Motorized Transportation Plan
- Participate: Manistee County Multi-Use Regional Trail Initiative.

5.3: Airport Actions

5.3.1: Airport Overlay Zone Consideration

Cause:

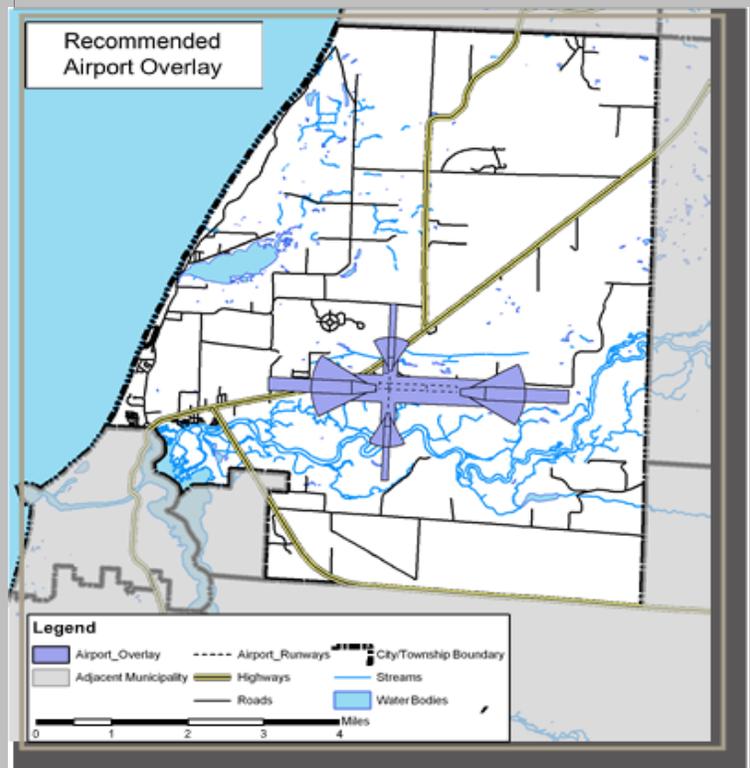
The Michigan Department of Transportation, the Federal Aviation Administration and the Michigan Aeronautics Commission have recommended that Manistee Township institute an “Airport Overlay Zone” in order to regulate land uses within the vicinity of the Manistee Blacker Airport. Further, the Michigan Aeronautics Commission has created an airport approach plan for Manistee Blacker Airport. Regulations would pertain to compatible land uses, height of buildings, communication towers and natural features along with restrictions on lighting that may create a hazard to safe landing or taking off of aircraft.

Action:

Establish an Airport Overlay District per the recommendations of the FAA, Michigan Aeronautics Commission and MDOT.

5.3.2: Appropriate Uses & Densities in Airport Overlay

Airport Overlay Recommendations



Map 9: Airport Overlay Recommendations

Cause:

Zoning Districts located within the recommended airport safety zones, currently allow multi-family housing, retail establishments, professional services, commercial operations as well as indoor and outdoor recreation facilities. The airport approach plan for Manistee Blacker Airport is incorporated herein by reference, and a copy is available for public inspection at the Manistee Township Hall.

Action:

Modify Zoning District areas and uses in the vicinity of Manistee County Blacker Airport to compliment airport activities not inconsistent with the recommendations in the airport approach plan.



Image 27: Manistee Blacker Airport Entrance

5.4: Infrastructure Actions

5.4.1: County Drains & Drainage Districts

Cause:

Communication and transparency issues have surrounded some drainage district expansion and maintenance efforts.

Action:

Only support petitions for the creation, expansion, and/or maintenance of drainage districts that are brought about by free land holders of property within the Township.

Action:

Support closure of all non-essential drains as identified by the Manistee County Drain Commissioner.

5.4.2: Stormwater Management

Cause:

Stormwater runoff from impervious surfaces carries pollutants such as heavy metals, nitrogen, phosphorus, fecal matter and other pathogens that can be carried to surface waters resulting in non-point source pollution.

Action:

Continue support of the Drain Commissioner's Office "Stormwater Guidelines" which require on-site infiltration of stormwater for commercial, industrial and residential sub-division site plans that are under authority of the drain commissioner's office.



Image 28: Meijer Low Impact Development Level Spreader

5.4.3: Water and Sewer Agreements

Cause:

Water and Sewer infrastructure through joint agreements with local units of government, promote development within areas of Manistee Township. Increased density should follow infrastructure.

Action:

Continue cooperative agreements with the City of Manistee and the Little River Band of Ottawa Indians. Locate and promote zoning districts that increase density where infrastructure is present.

5.5: Energy and Extraction Actions

5.5.1: Gas and Oil Extraction

Cause:

Existing gas and oil wells are present throughout the Township and lend to economic development and the sustainability of employment.

Action:

Permit use of natural resources through the allowance of gas and oil extraction that has been properly permitted through the State of Michigan.

5.5.2: Solar Thermal Energy

Cause:

The Township has been approached for placement of solar farms for the harnessing and distribution of energy.

Action:

Manistee Township should continue to allow solar farms in areas of low density residential development and agricultural production. Solar energy should compliment agricultural production by working with landowners to sustain a mode of agriculture that may coexist with solar panels and ancillary equipment.

5.6: Civic and Governmental Actions

5.6.1: Collaboration

Cause:

Collaboration with adjacent local units of government has led to cost savings through shared services.

Action:

Continue collaboration with local entities to improve fiscal responsibility.

5.7: Housing Actions

Cause:

Studies have shown that there is a shortage of attainable housing for workers and working families within our communities.

Action:

Manistee Township, with it’s location close to employers and services is in a position to provide actions towards improving the housing issue. Land use districts in the Southwestern portion of the Township should promote greater density with allowances for multi-family housing and smaller lot sizes and decreased minimum square footage for smaller single-family dwellings. Flexibility may be achieved while maintaining conditional control through special uses.

5.8: Land Uses Category Actions

5.8.1: Public Land and Public Open Space Actions:

Cause:

Public lands lend to the character of the Township and region, drawing outdoor enthusiasts and protecting substantial areas from development activities and promoting the use of resources and protecting wildlife habitat.

Action:

Create a land use district which contains all public lands within the Township. Establishing knowledge of locations of public lands assists staff, visitors and would be residents/property owners when actively viewing parcels.

5.8.2: Agricultural and Forestry Actions:

Cause:

Protection and preservation of agricultural lands and forestry is a desire of residents and visitors. This was identified through various public input efforts within the Township and County. Parcel size within the current AP-1 Zoning District allows 10 acre parcel minimums with a provision for 1 to 5 acre parcels for non-farm use.



Image 30: Manistee State Game Area Marsh

Action:

Existing minimum parcel sizes do not promote agricultural protection, and will, with time lead to land fragmentation and the dwindling of farmlands within the Township. Recommend, a modern, agricultural preservation zoning district which promotes cluster development and density bonus standards for sustainability of farm-land and development value. This offers greater flexibility for both condensed residential development and active farm operations. Common base densities prior to addition of a “density bonus” are 20 or 40 acre parcel minimums. See example below:

5.8.3: Residential Actions:

Cause:

Cost of Community Services studies show that sprawling residential development is more costly to service than condensed development where infrastructure is present.

Action:

Dense residential developments should be encouraged to be placed where appropriate infrastructure is present. This decreases demand on tax dollars, and allows those saved dollars to go towards other services.

Cause:

Land fragmentation and residential sprawl commonly occur through allowance of medium density development over large areas of land. Medium density commonly ranges from 2 to 10 acres in minimum parcel size.



Image #31 Douglas Valley

Standard Development vs. Cluster Development with Density Bonus

40 Acre Parcel

Current AP-1 Zoning Allowance Model

- 1 to 5 acre minimum per dwelling is allowed
 - 20 new homes on 40 acres
- *40 new homes is permissible under current zoning*

40 Acre Parcel

Cluster Development with Density Bonus Model

- 10 acre parcel minimum would allow 4 homes per 40 acres.
- Offer a Density bonus of 1 additional home if the homes are clustered on 2 acre parcels.
- Allow for a dwelling to be constructed or maintained on the remaining 30 acres
- Development would occur over 10 acres and leave 30 acres to be permanently preserved for farmland through conservation easement



Diagram 2: Traditional vs. Cluster Development Example

5.8.3: Residential Actions cont.

Action:

Dense residential districts should be buffered by multi-use and medium density residential districts. These districts should be located adjacent to higher density residential areas, but should not cover large swaths of undeveloped land, where larger parcel sizes exist.

Cause:

The current structure of zoning districts within the Township limits the opportunities to have a more focused approach upon varying areas for different residential density. The approach of a “Mixed Use” district is encouraged for a portion of the Township, but not for the purpose it is currently utilized. The current mixed use district is really a medium density residential district with allowances for rural, non-residential uses.

Action:

Creation of three residential districts provides a range of options for High, Medium and Low Density. The low density district should also continue to allow rural mixed uses and the purpose and title should convey such. The three residential districts to be recommended are:

- High Density Residential (Allows for Planned Unit Development & Multi-Family as a Special Use)
- Medium Density Residential (Allows for Planned Unit Development & Multi-Family as a Special Use)
- Country Residential & Rural Mixed Use (Allows for Planned Unit Development)

5.8.4: Mixed Use Actions

Cause:

The mixed use district that is currently in place within the Township covers large swaths of land. Lands that are both assessed residential as well as agriculture are captured within this district. The purpose of the district may indeed meet it’s “title” of allowable mixed uses, but as stated above it would be better conveyed as Country Residential and Rural Mixed Use. This would allow for amending of the Mixed Use District to a more commercial/residential approach.

Action:

Adjust the uses within the mixed use district to allow for commercial and varying densities of residential development. The district should be placed adjacent to commercial and residential districts where uses such as office and retail can coexist with retirement homes, and higher density residential development.

5.8.5: Commercial Actions

Cause:

Commercial development is located largely along the US-31 corridor, where both water and sewer infrastructure currently exists.

Action:

Continue to promote development along the US-31 corridor and other locations of existing infrastructure, and look to expand to areas adjacent to the airport with consideration of an airport overlay zone.

Action:

Infrastructure expansions should direct the location of proposed commercial development. District boundaries should be amended as needed.

Cause:

Commercial uses typical of retail and service businesses are located within the commercial district of Manistee Township, with the City of Manistee allowing isolated retail uses for marijuana sales.

Action:

Manistee Township did not authorize the sale of marijuana or marijuana products under State Law and directs those uses to the nearby City of Manistee.



Image 32: Airport Tarmac

5.8.6: Industrial Actions

Cause:

Industrial areas have been provided along the M-55 corridor in the vicinity of the Renaissance Park.

Action:

Continue industrial development where water infrastructure exists and sewer can be expanded.

Action:

Zone light industry uses adjacent to City Renaissance Industrial Park.

Action:

As infrastructure expands, revisit industrially zoned areas to ensure that they are still compatible with the needs for industrial space within the Township.

Cause:

Cultivation of marijuana has been directed to industrially zoned districts of communities under State law, and only permissible in communities that have opted in for medical marijuana or opted out for recreational marijuana.

Action:

Manistee Township has not authorized the cultivation, processing or transport of marijuana within the Township and directs those uses to the nearby City of Manistee where appropriate areas are zoned for allowance of those uses.



Image 33: Industrial Park Entrance



Image 34: Industrial Park Lot #9

6: Future Land Use Plan

The Future Land Use Plan outlines the recommended Future Land Use Districts for Manistee Township. Evidence provided throughout this planning document directs the placement of higher density residential districts to achieve necessary densities for promoting focused growth in areas of existing services and population densities.

Similarly, commercial and mixed use districts are focused in areas of transportation corridors that allow ease of access (US-31) as well as having both sewer and water services available. Certain uses of a commercial nature rely upon these services in order to allow for operation. Mixed use provides flexibility off of the primary transportation corridors adjacent to the commercial districts. The placement and expansion of both commercial and mixed use districts align with the recommendations from MDOT and the FAA for development and uses within the Airport Safety Zone Overlay.

The Industrial District aligns with its current placement upon the zoning map, which is adjacent to M-55 and neighboring industrial areas within close proximity of Manistee Lake. The industrial district also contains the City of Manistee Renaissance Park. Industries within the industrial district have the ability to connect to both water and sewer infrastructure, which expands the types of uses that can be placed in the area.

Rural areas which are desired by many for their unique charm of existing agriculture and forestry should be protected and preserved. This preservation may occur by appropriately directing low density residential development to 10 acre parcels or greater in areas adjacent to active farmland, forests managed for timber and wetland areas which limits the buildable area.

Areas of active farmland, forest management and wetlands should be appropriately zoned to a lower density of 1 unit per 20 or 40 acres, which promotes farmland over residential dwelling development. The utilization of density bonuses in trade for farmland conservation easements protects portions of agricultural land and forests. This balances the need of large acreage, rural land owners who rely upon the land for both sustaining a farm/forestry use but allows portions of the land to be sold and developed for income when needed.

Public lands and recreation spaces should be afforded their own district which separates these lands from parcels that are zoned for allowed uses and densities. These public lands will most certainly not be developed, and if and when a parcel of public land becomes transferred to private ownership, a rezoning to a neighboring zoning district should occur at no cost to the landowner.

The institution of overlay zones helps to simplify processes by allowing both applicants and the Township to more easily identify the regulations of certain areas. Two overlay zones are recommended within the Township:

1. Airport Overlay Zone: Safety zones which limit tall structures and other hazards to airport operations.
2. Wetland/100 Year Floodplain Overlay Zone: Identifies areas that require State approval for development activities, where the township will authorize land uses of the underlying zoning district with increased setbacks from delineated wetlands and riparian corridors.

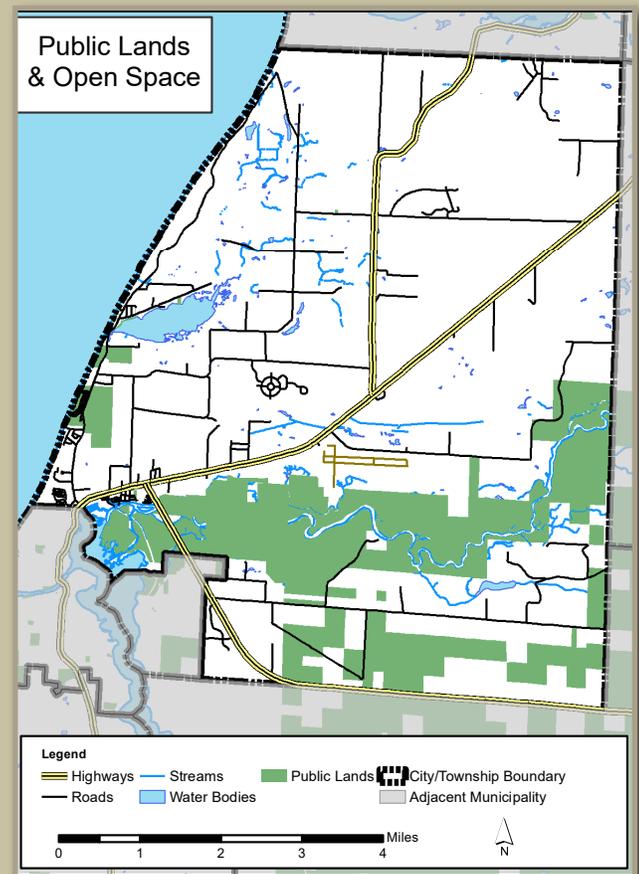
6.1: Forest Recreation and Open Space

6.1.1: Deductive Reasoning:

Forest Recreation and Open Space are lands that are held in public ownership through Manistee Township, the Michigan Department of Natural Resources or the United States Forest Service. The lands are not available for development in the traditional sense. Development activities that occur on these lands are for passive and active recreation, which often takes the form of trails, water & land access sites and sport fields, courts or playgrounds. Map 10 displays the locations of lands that are under public ownership and are recommended for inclusion within this district.

6.1.2: District Description:

This district is intended to be a holding zone for lands owned and managed in public trust by the United States, Forest



Map 10: Public Lands and Open Space Map

Service, the State of Michigan and Manistee Township. The Township should support the forest management plans created and incorporated by both State and Federal agencies. Uses promoted within these lands should be primarily passive recreation in the form of camping, hiking, fishing, hunting and other similar type activities. In the event of the sale or trade of a public land within this district, the Planning Commission shall waive an application fee for the re-zoning of the property to a zoning district which aligns itself with neighboring districts and land uses.

6.1.3: Recommended Bulk Requirements:

- No bulk requirements are recommended.

6.1.4 Recommended Uses:

- Passive and active recreation
- Trails and associated infrastructure
- Boat & watercraft riparian access and associated infrastructure
- Public camping facilities and associated infrastructure
- Park pavilions, playgrounds, courts and associated infrastructure.

6.2: Agriculture and Forest Preservation District (AFP)

6.2.1: Deductive Reasoning:

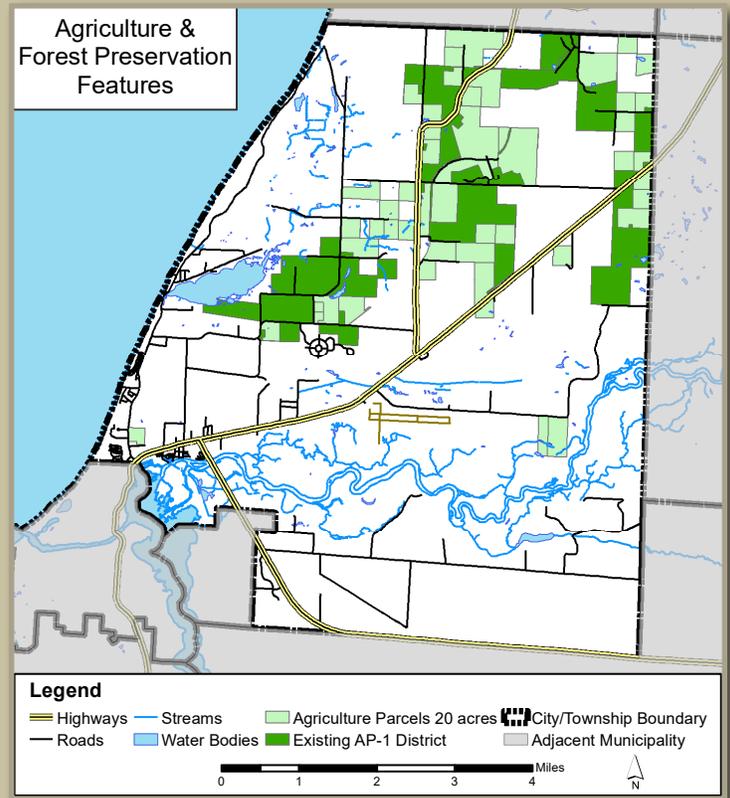
The existing AP-1 District contains areas within the Township with active agricultural activity and medium and lower density residential development. The existing district provisions allow for medium density residential development which may create sprawl in areas of agriculture. Through analysis of property assessments which allows isolation of active agriculture, coupled with parcel size analysis isolating parcels 20 acres or greater; the authors were able to identify areas that should be protected through appropriate agriculture and forest preservation densities. Map 11 displays locations of active agricultural lands greater than 20 acres and the existing boundaries of the AP-1 District.

6.2.2: District Description:

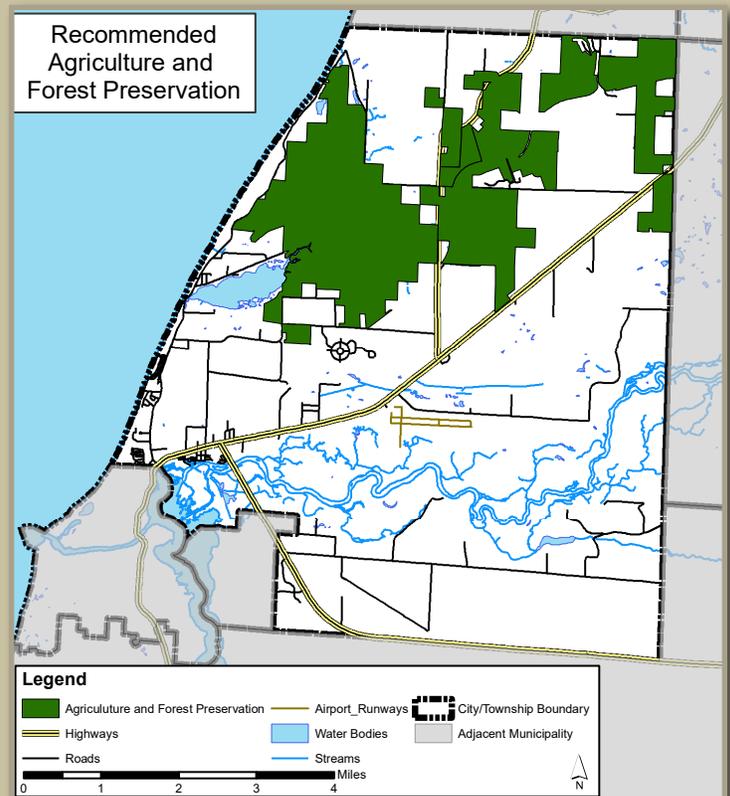
The AFP District contains and protects valuable farmland and forestry areas of the Township. The primary focus of these lands should be agricultural production with residential use being secondary. Large parcel sizes are recommended to maintain and promote farmland. Residential development is allowed through cluster development provisions with density bonuses, providing landowners the flexibility to maintain active farmland while also allowing limited and focused residential development upon a portion of a property. Map 12 provides the boundaries for the AFP District.

6.2.3: Recommended Bulk Requirements:

- Minimum parcel size of 20-40 acres
- Cluster development individual dwelling parcel size of 25,000 square feet to 2 acres



Map 11: Agriculture and Forest Pres. Features Analysis Map



Map 12: Recommended AFP District Boundary
Section 6: Future Land Use Plan

- Cluster development of 5 (new dwellings) per 40 acres (all located upon 10 acres or less)
- Allow existing or new farm home on remaining acreage to remain in agricultural production

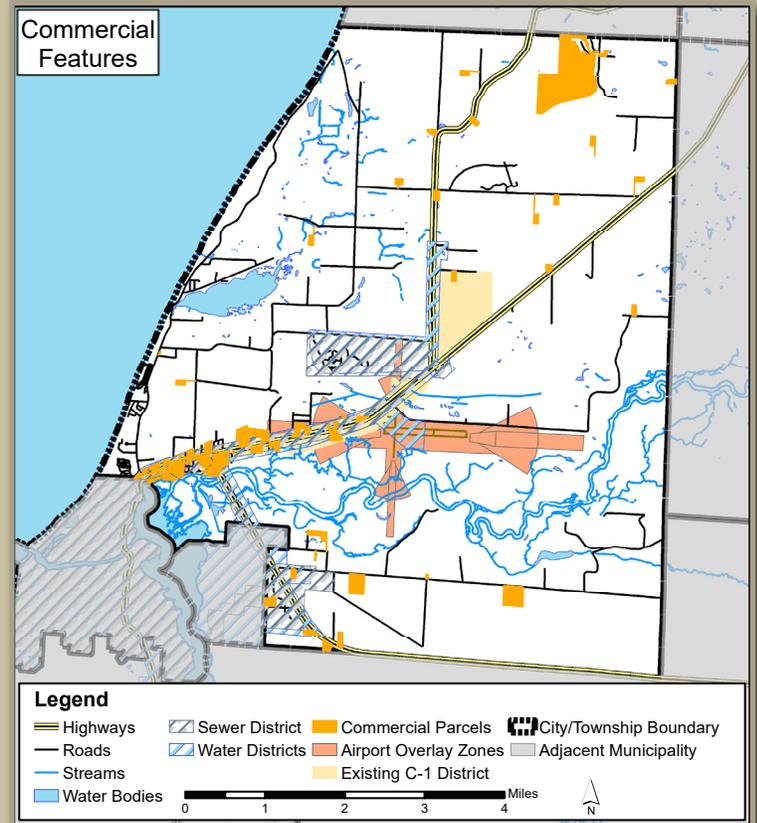
6.2.4: Recommended Uses:

- Farming Operations
- Forestry Operations
- Agricultural Tourism
- Wineries, Cider Mills, Breweries and Distilleries
- Energy Extraction (Gas and Oil)
- Solar Energy and Ancillary Activities
- Single-Family Home Cluster Development (Encouraged through density bonuses)
- Passive and active recreation & associated infrastructure

6.3: Commercial District (C-1)

6.3.1: Deductive Reasoning:

The existing commercial district is located along the US-31 corridor in the Southern portion of the Township. This area is serviced by both water and sewer infrastructure allowing for dense commercial development. The location of the Manistee Blacker Airport influences the expansion of this commercial district boundary as commercial uses are more harmonious with and supported by the Airport Overlay Safety Zones. Map 13 provides the base for analysis of parcels assessed as commercial, the location of water and sewer districts, the airport overlay safety zones and the existing C-1 Zoning District.



Map 13: Commercial Features Analysis Map

6.3.2: District Description:

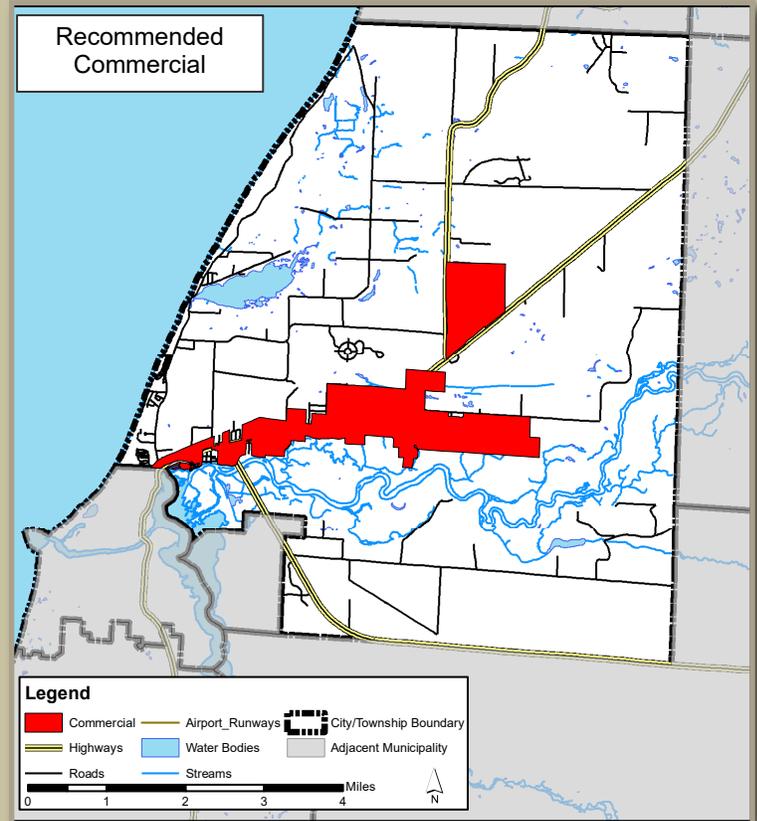
This district is intended to provide for a variety of typical retail and service type businesses. Special uses will include certain businesses with outdoor storage, and regulations will seek to condition these businesses to appropriately display and screen outdoor storage when necessary. Residential uses shall be secondary to commercial uses. See map 14 for the recommended boundary of the Commercial District.

6.3.3: Recommended Bulk Requirements:

- Minimum parcel size of 15,000 square feet

6.3.4: Recommended Uses:

- All retail uses (adult entertainment and other like uses by special use permit)
- All service industry uses (including vehicle repair) (junk yards are allowable only by special use permit)
- All restaurant, eatery and drinking establishment uses
- All professional office uses



Map 14: Recommended C-1 Boundary

6.4: Mixed Use District (M-1)

6.4.1: Deductive Reasoning:

Parcel analysis of assessed uses of a commercial nature along with both high and medium density residential uses provide guidance to the siting of this district, when considered against the established commercial corridor of US-31. The presence of water and sewer in close proximity provide the services needed to develop increased density. This mixed use district combines density aligning to neighboring high density residential districts and also acts as a buffer to lower density country residential that exists further off of the corridor. This district replaces the existing Mixed Use, M-1 District, with a condensed version that is more flexible in a range of allowable commercial uses and residential uses (with higher density approved through special use permit).

6.4.2: District Description:

Located around the commercial district, just off the US 31 corridor and adjacent to the existing higher density residential, are areas that are mixed use. This is a true mixed use district, that more closely resembles a neighborhood commercial district with allowances for some high density residential (apartments/condos) through special use permit along with single-family home allowances, small retail and offices. More noxious commercial uses, such as gas stations and the like are either prohibited or approved only through a special use permit. See map 15 for the location of the M-1 District Boundary.

6.4.3: Recommended Bulk Requirements:

- Minimum parcel sizes of 25,000 - 45,000 square feet are recommended for this district.

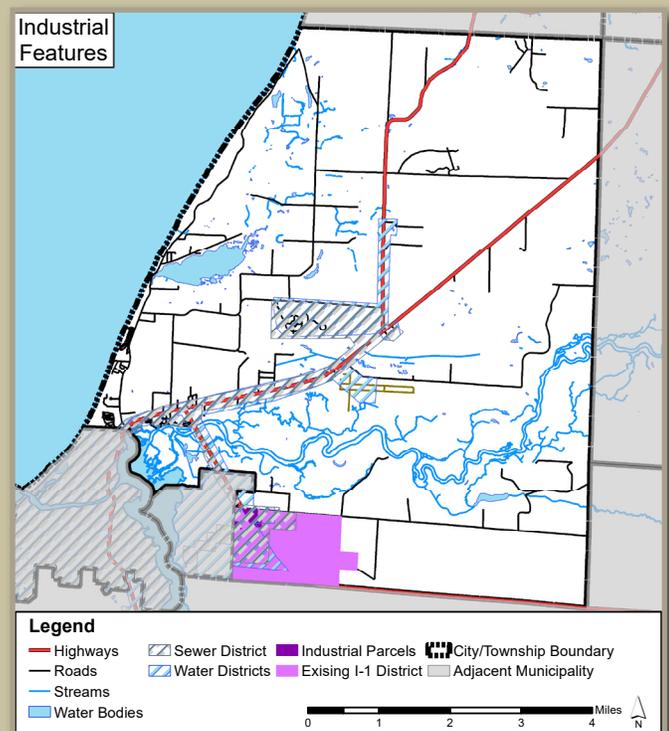
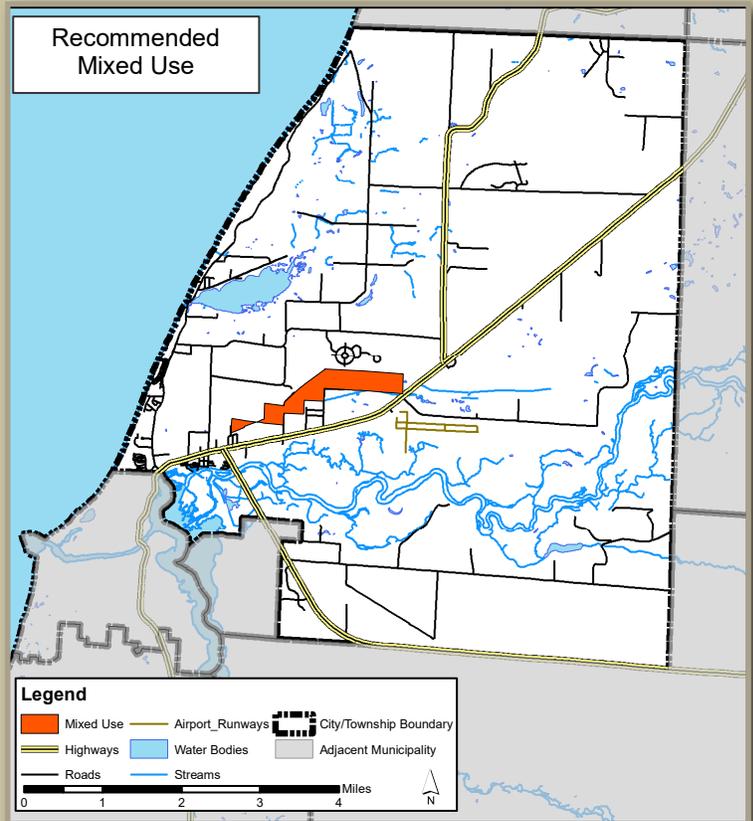
6.4.4: Recommended Uses:

- All professional offices
- Limited retail (excluding gas stations and the like)
- Restaurants and Eateries (excluding fast food and drive-thru restaurants)
- Professional service establishments of a non-noxious nature
- Residential dwellings (single-family by right, multi-family by special use)
- Planned Unit Development (by special use)

6.5: Industrial District (I-1)

6.5.1: Deductive Reasoning:

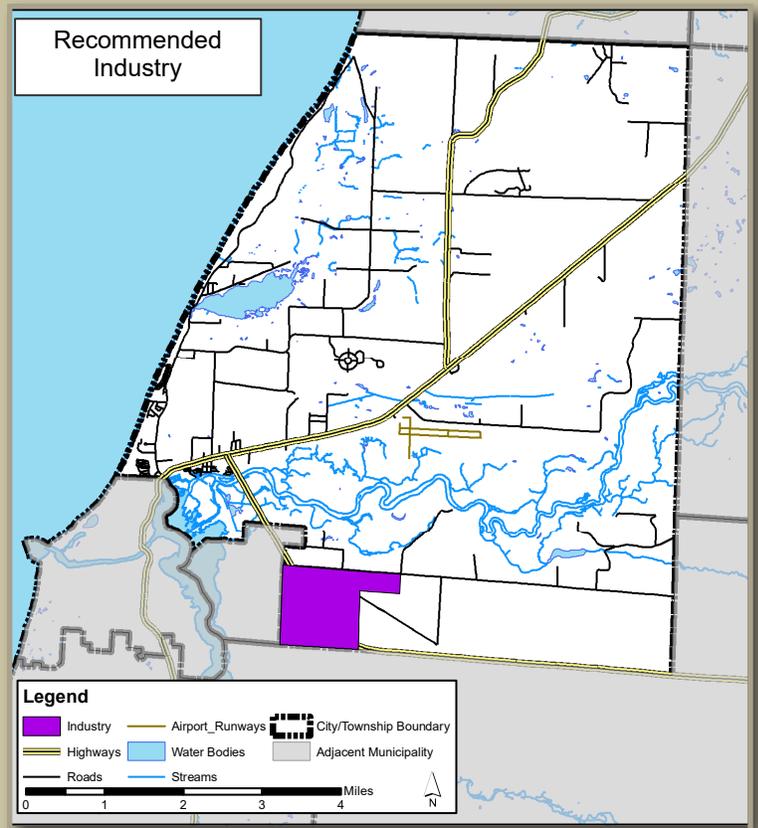
Analysis of the existing I-1 District boundary overlaid with assessed Industrial parcels and water and sewer districts provides supporting data for the placement of the Industrial District (see map 16). The current boundary of the Industrial District is to be modified slightly to remove the lands that are under ownership of the United States Forest Service.



Map 16: Industrial Features Map

6.5.2: District Description:

The Industrial District is composed of those areas of the Township whose principal use is or ought to be heavier types of manufacturing and other industrial uses. These uses may generate noise, glare, odor, dust, vibration, air and water pollutants, fire, explosive and radioactive hazards, and other harmful or obnoxious matter in amounts unsuitable for certain areas of the Township. This district has been located within the Township close to neighboring community industrial districts and industrial uses. The siting of the district seeks to protect adjacent agricultural, residential, and commercial areas from the encroachment of incompatible uses, and to lessen congestion on public streets and highways. To these ends, certain uses which would function more effectively in other districts and would interfere with the operation of these industrial activities and the purpose of this district, have been regulated as Special Land Uses or excluded. See map 17 for the recommended boundary.



Map 17: Recommended I-1 Boundary

6.5.3: Recommended Bulk Requirements:

- 3 acre minimum if connected to a public sanitary sewer or an on-site sewage system is used for the disposal of only human waste and not a part of the industrial process.
- 5 acre minimum if an on-site sewage system is used for anything more than human waste

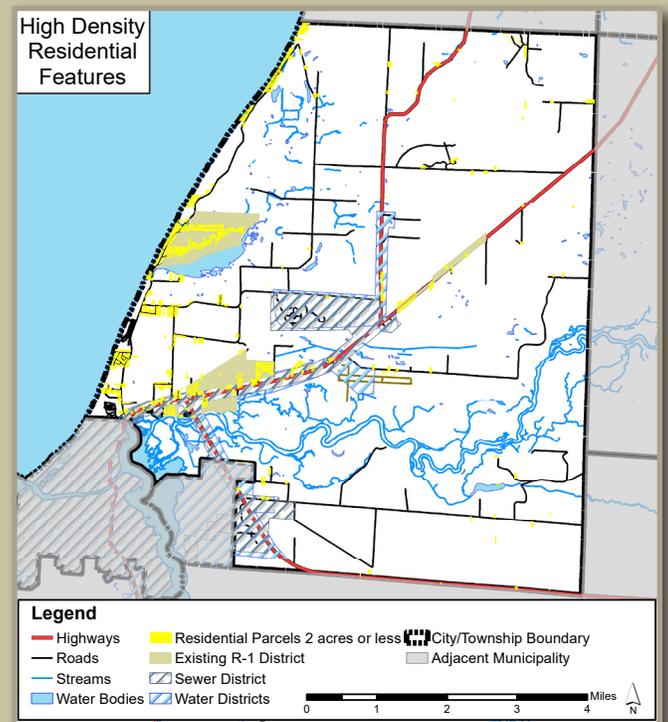
6.5.4: Recommended Uses:

- Light manufacturing
- Municipal water treatment, public works garages
- Packaging of prepared materials
- Printing and similar uses
- Lumber yards
- Warehousing
- Contractor Yards
- Wholesale of goods
- Uses approved as similar in nature by the Zoning Board of Appeals

6.6: High Density Residential (R-1)

6.6.1: Deductive Reasoning:

High density residential development is primarily located within the southwestern portion of the Township. These locations are suitable due to the proximity of employment, services and access to primary roads and highways. Analysis of the existing R-1 district along with identification of assessed residential parcels of 2 acres or less, overlaid with water and sewer districts provides a vision for directing higher density residential development (see map 18). Expansion of the high density residential district to capture parcels previously contained within the R-2 district is reasonable due to the nature of the size of the parcels and the density of the areas immediately outside of the established



Map 18: High Density Residential Features

high density residential district. Single and multi-family dwellings are included within the district in order to promote continued dense growth in these appropriate areas.

6.6.2: District Description:

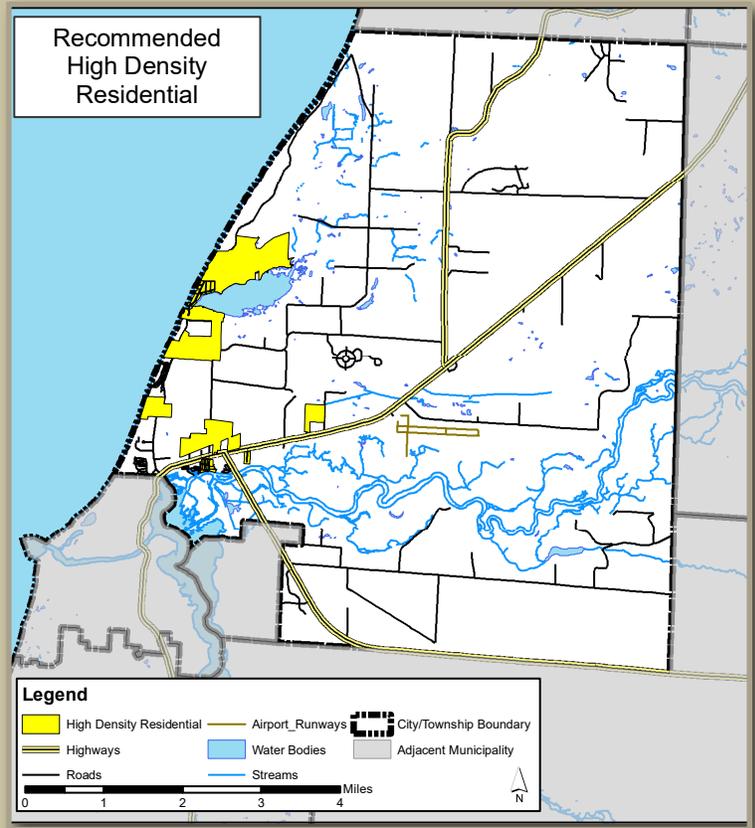
The High Density Residential District is designed to provide sites for single family residences on more compact lots than other residential districts. Non-residential uses permitted are limited in order to avoid future conflicts between land uses on relatively small lots. Special uses should include multi-family allowances with specific conditions that direct these uses to areas where they are serviced by both municipal water and sewer and are more closely situated to primary transportation corridors and employers. See map 19 for the recommended boundary of the R-1 district.

6.6.3: Recommended Bulk Requirements:

- Minimum parcel size of 15,000 square feet

6.6.4: Recommended Uses:

- Single-family residential dwellings
- Home Occupations
- Bed and Breakfast (by special use)
- Churches (by special use)
- Multi-family dwellings (by special use, connection to municipal water/sewer mandatory)



Map 19: Recommended R-1 District Boundary

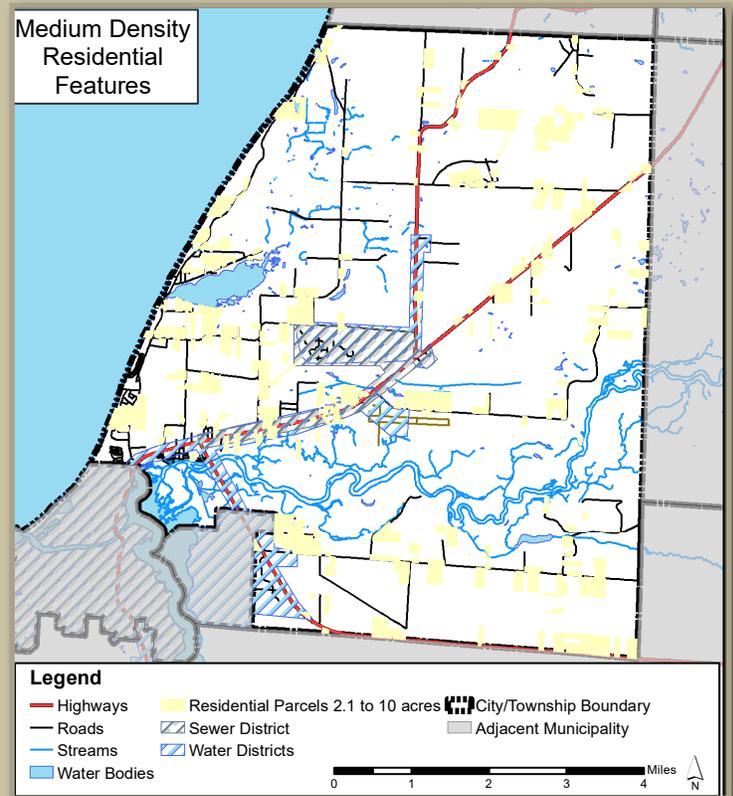
6.7: Medium Density Residential (R-2)

6.7.1: Deductive Reasoning:

Analysis of assessed residential parcels that are greater than 2 acres and less than 10 acres provides a visual for the location of residential density which doesn't meet the exact definition of low density, but is rural in nature and located outside of higher density residential areas (see map 20). These parcels are candidates to remain at their established size, but also could be allowed to split in order to create higher density. The R-2 District should buffer areas of high density residential development with medium density. This medium density should also be established in locations of critical dunes and high risk erosion where feasible with identified buildable area.

6.7.2: District Description:

The R-2, Medium Density Residential District is designed to provide sites for single-family dwellings on slightly larger lot sizes than the R-1 District. Where appropriate municipal water and sewer infrastructure is available, multi-family dwellings should be permitted as a special use. See map 21 for the recommended district boundary.



Map 20: Medium Density Residential Features

6.7.3: Recommended Bulk Requirements:

- Minimum parcel size of 25,000 square feet

6.7.4: Recommended Uses:

- Single-family residential dwellings
- Home Occupations
- Bed and Breakfast (by special use)
- Churches (by special use)
- Multi-family dwellings
- Clinics (by special use)
- Vet Clinics (by special use)
- Retail Convenience Stores without gas pumps (by special use)

6.8: Country Residential and Rural Mixed Use (R-3)

6.8.1: Deductive Reasoning:

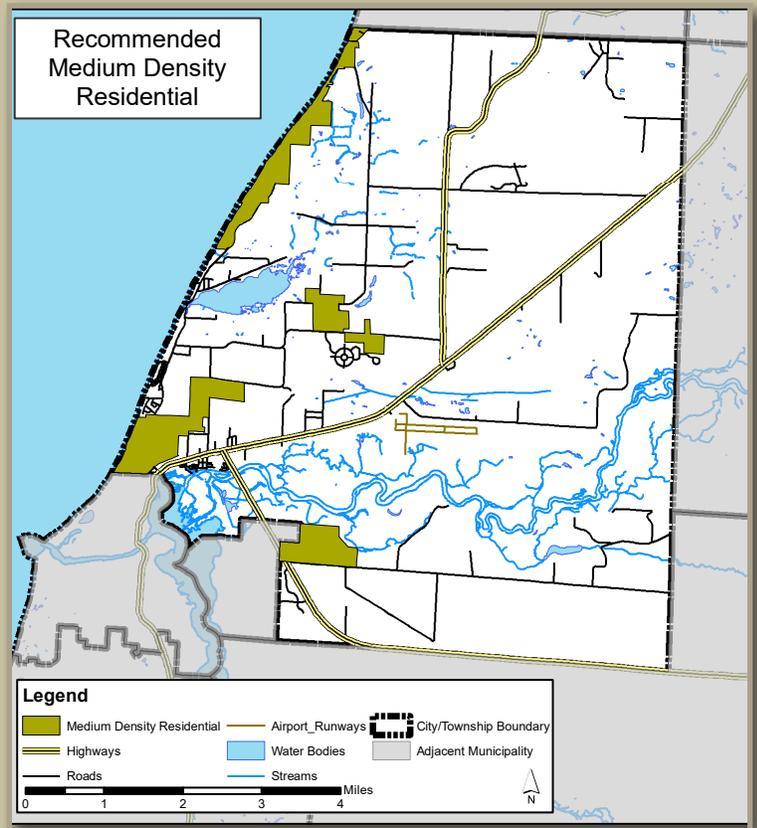
Analysis shows many parcels that are of existing lower residential density (see map 22). Areas outside of the high and medium residential districts and wetlands that are not assessed agricultural properties and have existing parcel sizes in the 10 acre range are ideally situated to be contained in a Country Residential and Rural Mixed District. Currently much of the Township is contained within a “Mixed Use” district, that is really a medium density district with allowable rural mixed uses. Orderly growth should promote more density towards services, employment and existing dwelling density. Rural residential character is supported by the current 5 acre minimum parcel size.

6.8.2: District Description:

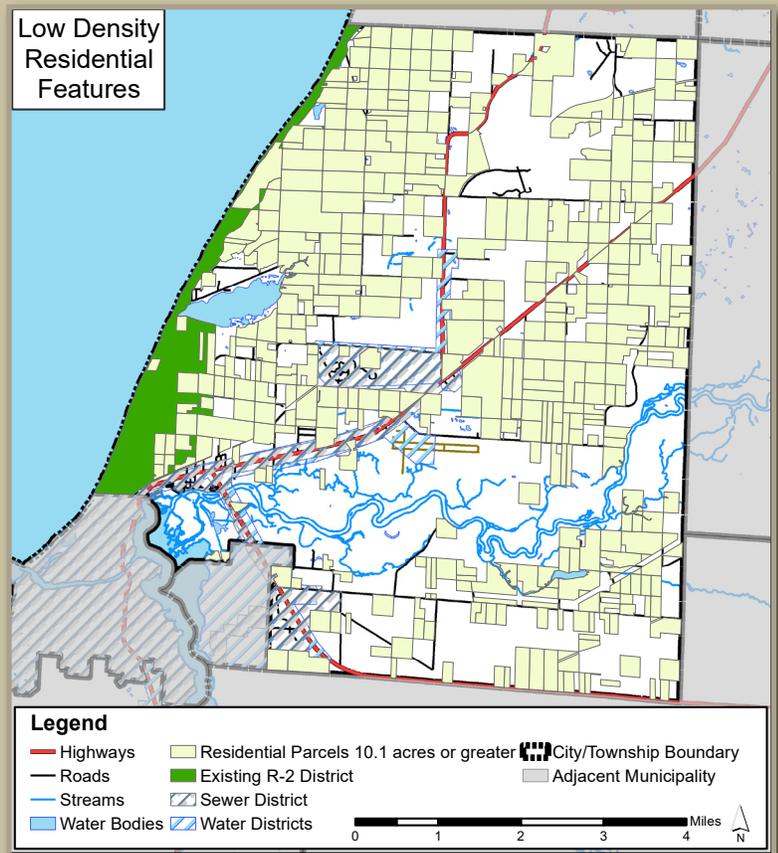
The R-3, Country Residential and Rural Mixed Use District is established to allow for the orderly growth of low density rural residential dwellings, with allowances for rural mixed uses that compliment the rural character of the Township. The district is a buffer between medium density residential districts and areas contained within the agriculture and forestry preservation district. This district should protect rural dwellings with larger parcel sizes and permit rural commercial uses that are compatible with the countryside. The recommended boundary for the R-3 is displayed on map 23.

6.8.3: Recommended Bulk Requirements:

- Minimum parcel size of 5 acres



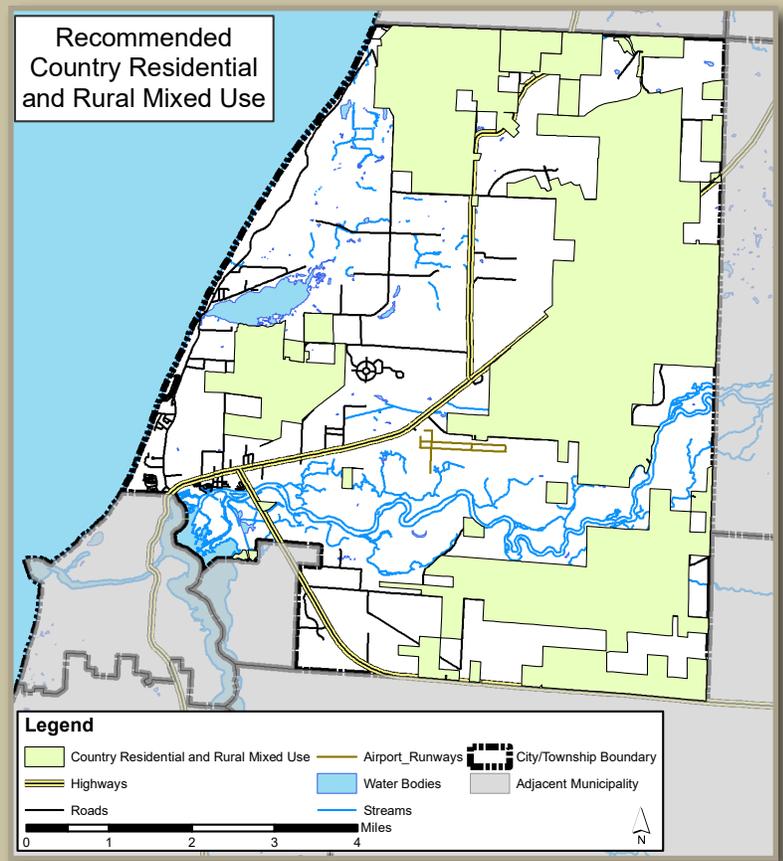
Map 21: Recommended R-2 District Boundary



Map 22: Low Density Residential Features

6.8.4: Recommended Uses:

- Single-family residential dwellings
- Agricultural Operations
- Agricultural Storage
- Processing of Agricultural Products (by special use)
- Forestry
- Home Occupations
- Bed and Breakfast
- Churches
- Vet Clinics (by special use)
- Retail Convenience Stores without gas pumps (by special use)
- Planned Unit Development (by special use)
- Contractors Yard (Construction, Landscape)
- Agricultural Tourism
- Greenhouses
- Roadside Stands
- Wineries, Cider Mills, Breweries and Distilleries (by special use)
- Rental Cabins (by special use)
- Boarding Stables



Map 23: Recommended R-3 District Boundary

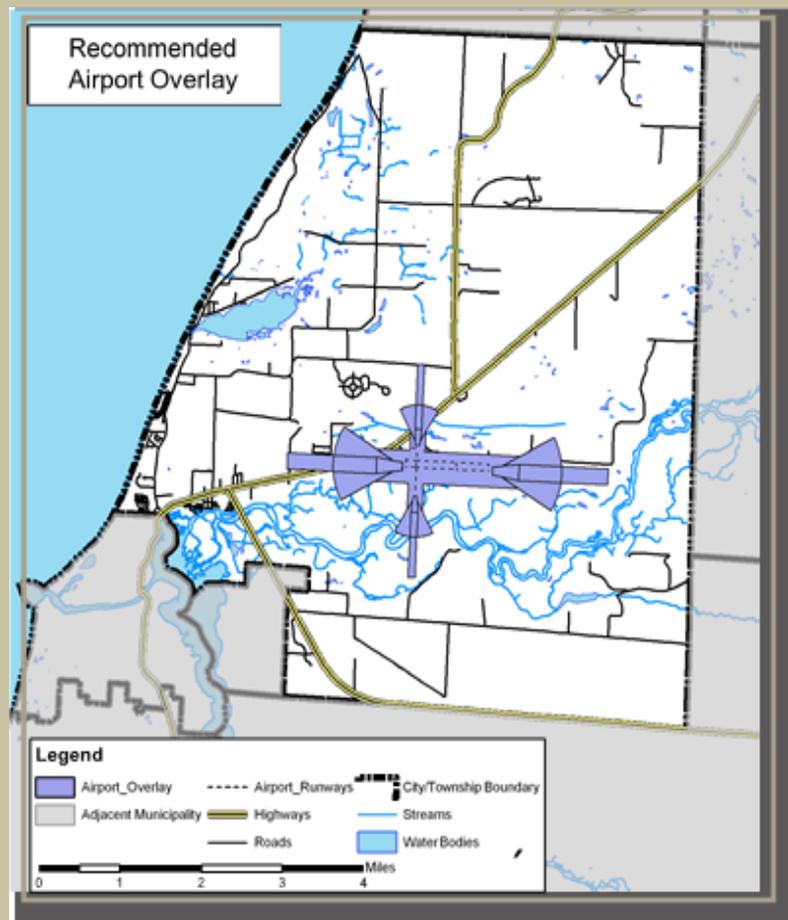
6.9: Airport Overlay District (AO)

6.9.1: Deductive Reasoning:

The Federal Aviation Administration, the Michigan Aeronautics Commission and Michigan Department of Transportation have made recommendations to the manager of the Manistee Blacker Airport to institute an airport overlay zone. This overlay is necessary to ensure the safety of air traffic, further the Michigan Aeronautics Commission has created an airport approach plan for Manistee Blacker Airport. The airport approach plan created by the Michigan Aeronautics Commission for Manistee Blacker Airport is incorporated herein by reference. A copy of the airport approach plan is on file with Township staff and available for public inspection at the Manistee Township Hall.

6.9.2: District Description:

The Airport Overlay Zone is located around the Manistee Blacker Airport and seeks to limit the height of towers and other features and uses that may present a hazard to airport operations not inconsistent with the recommendations provided in the airport approach plan. Please see the airport overlay map 24.



Map 24: Recommended Airport Overlay Zone

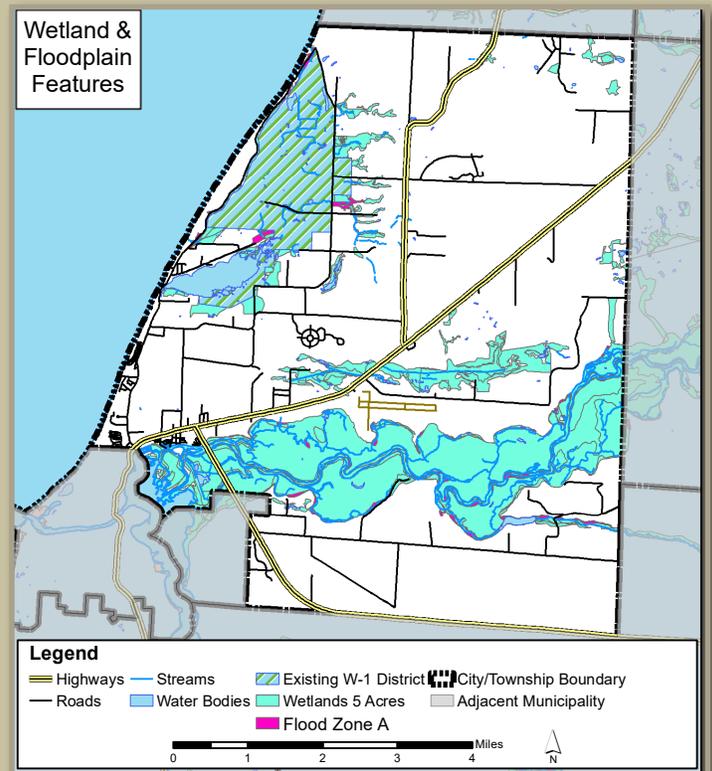
6.11: Wetland Overlay District (WO)

6.11.1: Deductive Reasoning:

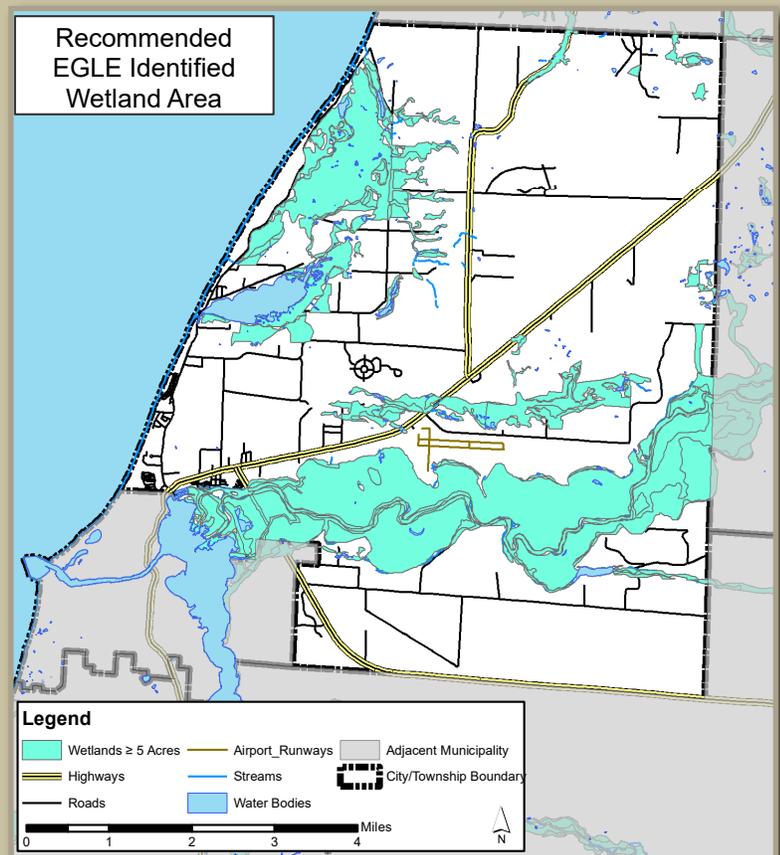
Existing wetland locations that are 5 acres or greater or connected to a surface water of the State fall under EGLE jurisdiction for permitting. Those wishing to develop within wetlands that meet this criteria must obtain a permit from the State of Michigan. The use of an overlay to convey the requirement for a permit from EGLE eases processing of permits as it identifies the high likelihood of the presence of wetlands within the area. See map 25.

6.11.2: District Description:

The wetland overlay district identifies the location of wetlands that are 5 acres or greater in size. These wetlands are under the authority of the State of Michigan for activities that include filling, dredging, development or construction. The vast amount of wetlands which meet this criteria necessitate the utilization of an overlay district in order to allow flexibility of regulatory measures that rest within the underlying zoning district. The wetland overlay district doesn't dictate parcel sizes, rather it identifies the need of the applicant to confirm with EGLE whether a permit is needed for a particular activity and establishes a setback from wetland areas and limits uses that may impact wetlands and associated surface waters. See map 26 for recommended wetland overlay boundary.

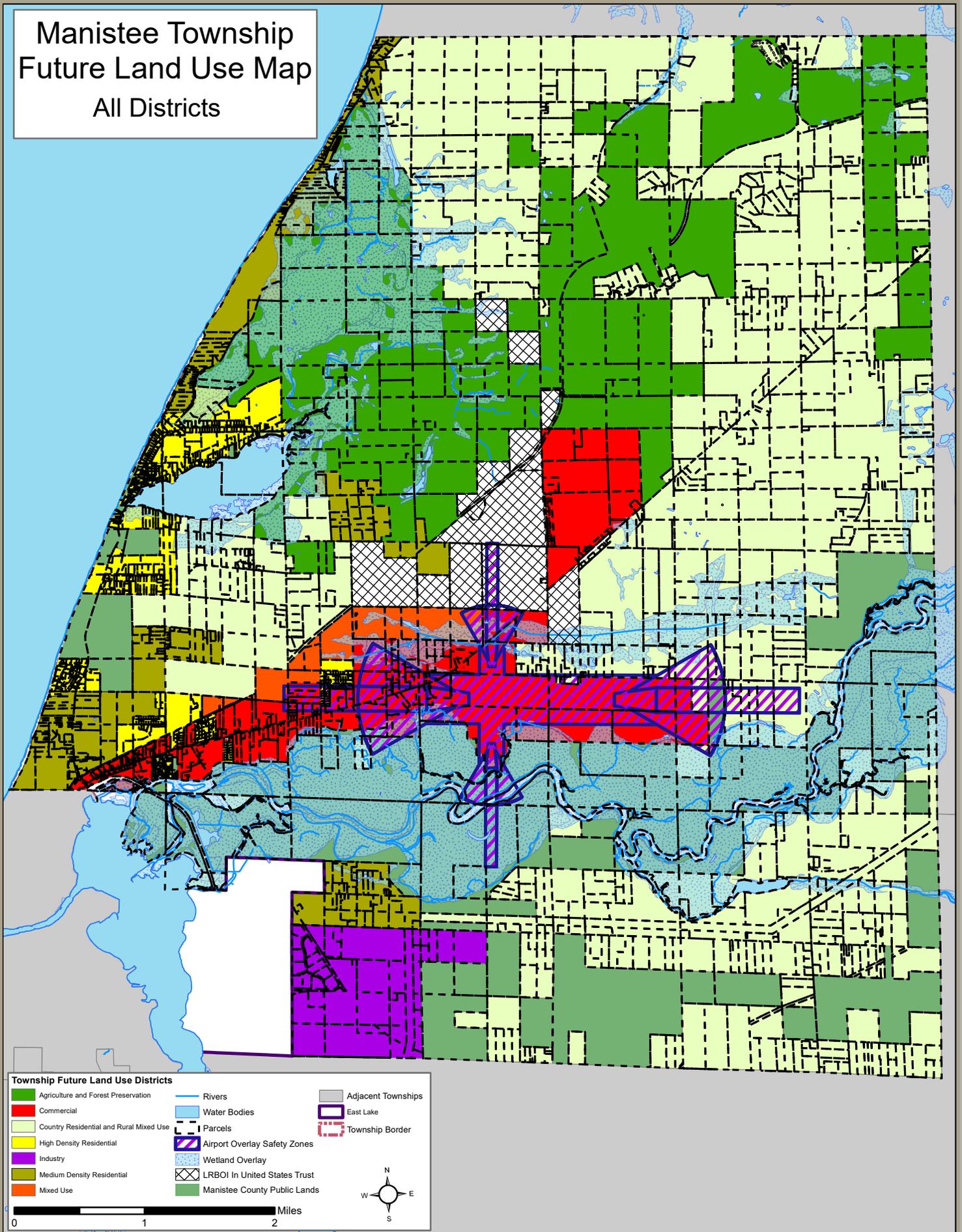


Map 25: Wetland and Floodplain Features Map



Map 26: Recommended Wetland Overlay Boundary

7: Future Land Use Map



8: Zoning Plan & Matrix

8.1: Zoning Plan Elements

Stormwater

Development activities should meet the requirements of the Drain Commission Stormwater Guidelines. These regulatory measures are required for commercial, industrial and larger scale residential projects.

Buffering (Uses)

Vegetated buffering should be maintained/required in districts where commercial/industrial abut residential uses, as found within the Manistee Township Zoning Ordinance, 2009 as amended.

Buffering (Water Protection)

Vegetated buffers should be maintained along surface waters, streams and wetlands where accurately delineated.

Signage

Specific requirements which denote sign number, height, size and specifics for illumination (no flashing, strobing, flickering, etc.) as found within the Manistee Township Zoning Ordinance, 2009 as amended.

Landscaping

Landscaping requirements should be maintained as found within the Manistee Township Zoning Ordinance, 2009 as amended.

Parking

Outline requirements for off-street and shared parking and establish a maximum allowance to limit impervious surface area and promote pervious parking areas.

Sidewalks

Maintain existing and add sidewalks or preserve space where warranted along US31, commercial and high density residential land use districts.

Lighting

All lighting in Non-Residential Districts should be required to be full cut-off fixtures, directed downward that meet dark sky standards, and light must remain within parcel boundaries as found within the Manistee Township Zoning Ordinance, 2009 as amended.

Utility Preservation

Preserve utility easements along side and rear lot lines.

Access/Connectivity

Shared drives, frontage roads and connectivity of parcels along the US31 corridor should be encouraged. Seek to adopt access management standards in the Township Zoning Ordinance.

Facade Materials

Encouragement of complimentary and high quality building materials for facades (brick, hardy wood plank, vinyl) within the commercial and mixed use districts will allow for the built environment to be aesthetically pleasing as well as maintaining higher values.

8.2: Zoning Matrix

The zoning matrix provides a concise method of displaying which regulatory measures and/or uses should be applied within a specific land use district. Check marks within the boxes of the matrix identify what districts and uses should be applied. Boxes which are empty are implied to not warrant those specific standards or uses. This matrix does not identify whether uses should be permitted or special, nor the specifications of the standards. This matrix is not meant to be all inclusive of every regulatory standard or use that should be placed within the zoning ordinance.

Land Use Districts	Zoning Regulations															
	Planned Unit Development	Single-Family	Multi-Family	Cluster Development	Parking Standards	Sidewalks Placement	Home Occupation	Access/Connectivity	Facade Materials	Lighting (Dark Sky)	Buffer (Water Quality)	Buffer (Screening)	Signage	Landscaping	Height Limitations	Density Limitations
Forest Recreation and Open Space (ROS)											✓					
Agriculture and Forest Preservation (AFP)	✓			✓												✓
Commercial (C-1)	✓				✓	✓		✓	✓	✓		✓	✓	✓		
Mixed Use (M-1)	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓		
High Density Residential (R-1)		✓	✓			✓	✓						✓			
Medium Density Residential (R-2)	✓	✓	✓		✓	✓	✓						✓			
Country Residential & Rural Mixed Use (R-3)	✓	✓					✓									
Industrial (I-1)					✓					✓		✓	✓	✓		
Airport Overlay (AO)															✓	✓
Wetland Overlay (WO)										✓						

Appendix A

Manistee Township Fire Dept Equipment List

131 - 2020 Spartan Class A Engine, with 1500 gpm pump, 1250 gal on board tank, 575ft of 5" supply hose, 600ft of 2.5" supply hose, 200ft of portable 500gpm monitor pre connect, 4 150ft 1.75" pre connect hose with vindicator, piercing, and foam nozzles, 1000gpm deck gun (also portable), 100ft of pre connect 1.75" hose with foam, 1 2000kw portable generator with 2 portable lights and extension cord, portable low flow electric pump, 2 axes, 2 shovels, 2 brooms, 5 different types of fire extinguishers, 3 ice suits with complete gear for rescue, 2 swift water suits with complete gear for rescue (rope bags), 6 multi colored tarps, 2.5" 50ft reverse roll for high rise (2 story or more), 2 high rise 1.75" hose with combo fog to smooth bore nozzles, 1 complete hydrant bag, 3 rolls extra of 1.75" hose, 1 16" portable electric positive pressure fan, 2 low level 5" strainers with 27ft of hose, 1 ventilation saw, 1 stop/slow sign, 5 SCBA's complete with 5 spare bottles, 2 portable hand lights, 2 thermal imaging cameras, multiple fittings and connections to adapted to different hose configurations, 2 hose clamps, 3 chimney flares, 30 gal on board foam capacity, 1 extension ladder, 1 roof ladder, 1 folding attic ladder, 1 utility ladder, 2 pike poles, 1 new york hook, 3 portable radios, and 6 traffic cones.

133 - 1998 KME 75' steele straight stick ladder (quint) with a 1500 gpm pump, 500 gal on board tank, 575ft of 5" supply hose, 600 ft of 2.5" supply hose, 2 200ft of 2.5" pre connect hose with nozzles, 2 200 ft of 1.75" pre connect hose with nozzles, 1 100ft pre connect hose with nozzle, 1 2000kw portable generator with portable low flow electric pump, 2 axes, 2 shovels, 2 brooms, 2 different types of extinguishers, JAWS hyd pump with 4 tools, circular cutting saw, RIT kit, multiple throw bags of rescue rope, 1 stop/slow sign, 5 SCBA's complete with 5 spare bottles, 2 portable hand lights, 2 thermal imaging cameras, multiple fittings and connections to adapted to different hose configurations, 1 extension ladder, 2 roof ladder, 1 folding attic ladder, 1 smaller ladder, 2 pike poles, 1 electric exhaust fan, 2 high rise 1.75" hose with combo fog to smooth bore nozzles, 1 complete hydrant bag, 3 portable radios, and 6 traffic cones.

132 - 2007 Kenworth 3000-gal tender/tanker with 500gpm pump, 1 100ft 1.75" pre connect hose with nozzle, 200ft of 2.5" supply hose, 1 complete hydrant bag, 1 3000-gal portable tank, multiple fittings for connecting to different hose, 4" low level strainer with 20ft of suction hose, 1 portable hand light, 1 stop/slow sign, and 4 traffic cones.

134 - 2001 Freightliner 1500 gal tender/tanker with 1000gpm pump, 1 100ft 1.75" pre connect hose with nozzle, 1 pre connected foam eductor, 5 gals of foam, 100 ft of pre connect 2.5" hose, 575ft of 5" supply hose, 600ft of 2.5" of supply hose, 1 2000kw portable generator, 1 complete hydrant bag, 1 4" low level strainer with 20ft of hose, 1 2.5" float strainer with 20ft of hose, 1 250gpm portable water pump, multiple fittings for connecting to different hose, 1 hand light, 1 stop slow sign, and 4 traffic cones.

137 - 2005 Ford F350 brush truck with 75gpm pump and 300 gal on board tank, 6 wildland pre packed hose packs with 200ft of hose in each pack, 100ft 1" booster reel, 150' of 1.75" hose,

200ft of 2.5" hose, wildland fire gear, 1 stop slow sign, 1 chain saw, 2 shovels, 2 brooms, 2 wildland tools, 12000lb electric winch (switch to front and back), and 4 traffic cones.

135R -1994 Chevy Suburban rescue rig with complete MFR equipment, 1 stop slow sign, 1 stair chair, and 3 traffic cones

All trucks have mobile radios installed and at least one portable radio unless otherwise listed

Station is 80ft by 80ft with 6 each 11'7" tall by 10' garage doors, with 2 drive through, 1 7500kw portable generator, approx. 600ft of 3" supply hose, approx. 300ft of 1.75" hose, 2 base radio's (1 in training room, 1 in bay), 4 phone locations, 2 CPU's (1 laptop, 1 tower both need updated), approx. 300ft of 2.5" supply hose, washer for fire gear only, double wash sink, scba filling station (can only fill low pressure bottles 2216psi), exhaust fan, 2 bathrooms (small septic tank and old), 5" water well, 1 refrigerator/freezer, 1 microwave, 1 small pizza oven, 1 on demand coffee maker, 1 drinking fountain, training room that holds 18 normally with seating and 6 tables (covid style about 9), approx. 4 extra folding tables, approx. 12 extra chairs, 3 portable benches, 1 training facility, and large parking area for approx. 50 to 75 cars (depending on time of year/snow)