

Henrietta Township Jackson County, Michigan Master Plan



2014-2018 edition

The 2014-2018 edition of the Henrietta Township Master Plan was adopted by the Henrietta Township Planning Commission on xxxx xx, xxxx

Henrietta Township Planning Commission Chair



The 2014-2018 edition of the Henrietta Township Master Plan was approved by the Henrietta Township Board on xxxx xx, xxxx

Henrietta Township Clerk

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Introduction

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Preface

The Planning Commissioners serve as independent advisers to their elected township officials on planning and land use matters. The Commission also serves as a link with the public, developers, other municipal boards, and with township staff.

The planning process exists to serve the public interest. It requires a conscientiously held view of the policies and actions that best serve the entire community including, but not limited to the following:

- The plan provides a basis for zoning and land use decisions.
- The plan must strive to protect the integrity of the natural environment and conserve the heritage of built resources.
- Improvements to infrastructure, emergency services, utilities, and other community facilities and services can be done in a more efficient manner when the master plan is consulted.
- The land use plan guides future growth toward areas of the Township more capable of handling the specific nature and intensity of land uses.
- Planning and zoning help identify and conserve productive agricultural land and areas of special environmental concern.
- Planning is a continuous process that pays special attention to the interrelatedness of decisions and the long range consequences of present actions.
- Adherence to the master land use plan reduces random development patterns which can deplete resources and create conflicting land uses.
- The plan strives to provide citizens the opportunity to have meaningful impact on the development of plans and programs.

In the State of Michigan, enabling authority for township planning is provided by the Michigan Planning Enabling Act (P.A. 33 of 2008) and the Michigan Zoning Enabling Act (P.A. 110 of 2006) that requires zoning to be based on a plan that promotes the health, safety, and general welfare of the community.

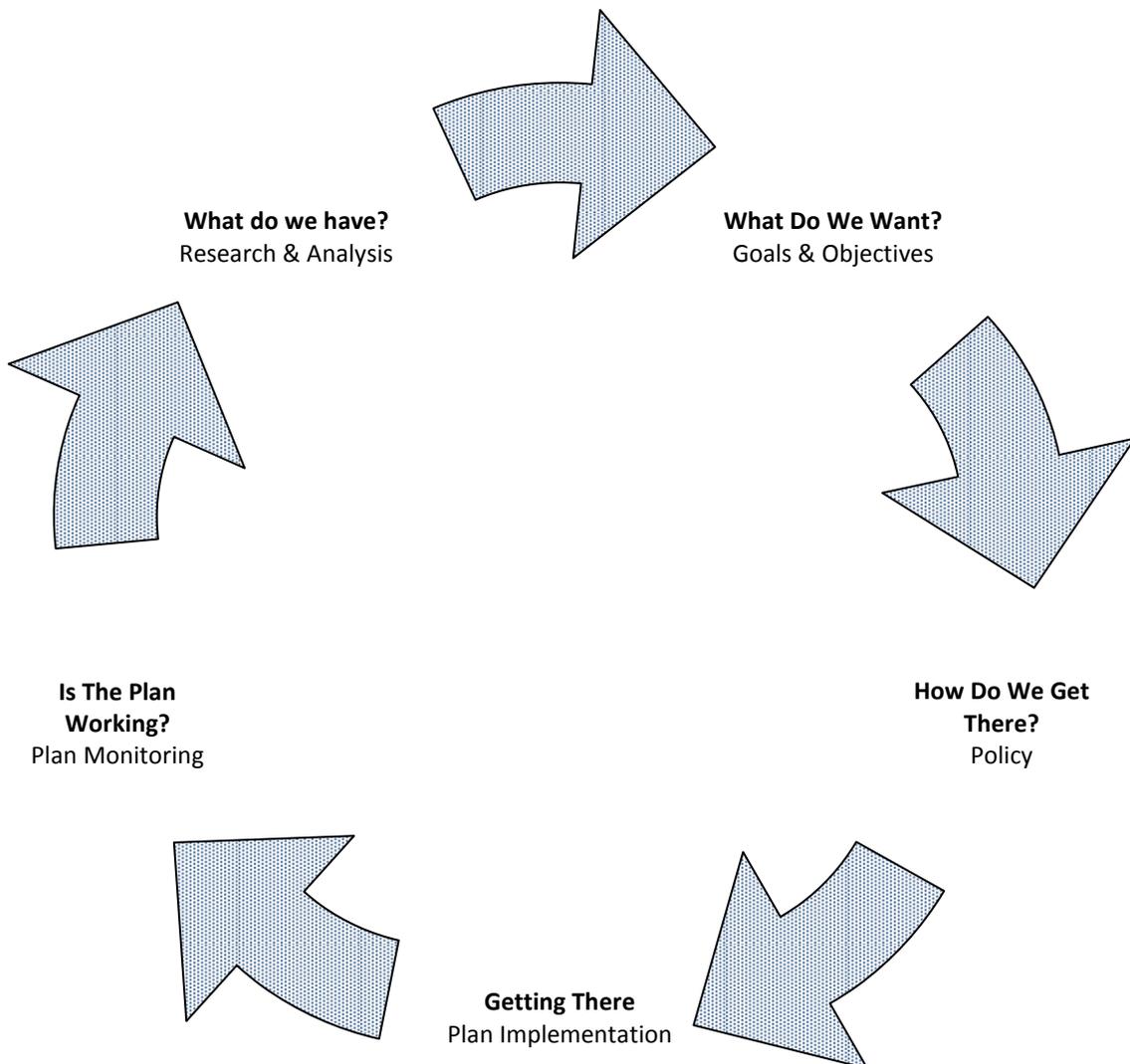
The first part of the master plan identifies the community's heritage and comprehensive view of what the Township desires for the future. This section contains long range goals, policies and implementation strategies that will guide governmental decision-makers and citizens in making informed land use decisions.

The second part of the plan provides a statistical view of the economic, demographics, cultural and natural makeup of the Township. Finally, the plan functions as an educational tool. Background studies and analysis, coupled with development goals and objectives, gives a clear indication of the Township's vision of the future.

Citizen Input

The Planning Commission encourages and solicits public comments during regular meetings while preparing updates and a plan draft. The Commission also conducted a Township citizen land use survey and reviews responses to a county-wide citizen land use survey. Both surveys have shown a strong preference for preserving the rural character in Henrietta Township and Jackson County. Public hearings on the plan were held as required under the Michigan Planning Enabling Act.

Continual Process The Planning Process



Community Vision

Vision comes from the Latin “visto” meaning “to see.” To have a vision means to look ahead; to imagine the future. The ability to imagine or dream the future – to create in our minds something beyond our present reality – is a distinctly human skill. History has shown that seeing in the mind’s eye is often the first step to actually achieving it.

As used in planning, visioning is a process by which a community envisions its preferred future. It chronicles the hopes, dreams, and aspirations of a community and helps citizens agree on what they want their community to become.

Why Visioning?

Communities everywhere are being buffered by the winds of change. Many are scrambling just to keep pace. Oftentimes business is in a reactive mode with little or no regard for the long term.

Communities searching for ways to become more proactive have stepped back to envision how things should be in the future. Through the power of planning, communities are discovering that they can choose to act rather than wait to be acted upon.



Vision Statement

Our community endeavors to preserve and protect Henrietta Township's rural lifestyle, resources, and natural environment by developing and executing plans that will focus and manage growth.

Mission Statement

Utilize all resources available to accomplish our vision in a timely and cost effective manner.

Objectives:

- Continuously improve communications at all levels, written and verbal.
- Determine “where we are and where we want to be.”
- Develop and execute strategic plans to get there.
- Recruit our talented citizens and others to assist in planning and budgeting.
- Continuously review and adjust our plans as needed.
- Use and follow this Master Plan as needed.
- Recognize others for their accomplishment.

Regional Setting

Henrietta Township is located in the north central portion of Jackson County. It is situated geographically in Tiers 1&2 South (of the Baseline) and Range 1 East (of the Meridian) of Michigan's Rectangular Survey System (T1-2S,R1E). Its Latitude and Longitude are 42.37444° and -84.31389°, respectively. The Township itself is considered rural with a historically agricultural base. The area's recreational lakes attract increasing residential density and seasonal population growth. Henrietta Township is centrally located 13 miles northeast of Jackson, 30 miles south of the Greater Lansing area, and 30 miles northwest of Ann Arbor.

Vicinity Map



Jackson County

Historic Perspective

A brief summary of Henrietta Township history provides valuable insight into how trends beyond the borders of the township influenced its land use. Regional and national changes in transportation, technology, commerce and agricultural practices were major factors affecting the township and probably will continue to do so in the future.

With the conclusion of the War of 1812 in 1815, there was pressure to open the wilderness in the Michigan Territory to settlement, but first the land needed to be surveyed. The boundaries of Henrietta Township began in 1815 at Ft. Defiance, Ohio when Benjamin Hough and Joseph Wampler were charged with establishing a meridian line straight north through the Michigan Territory. A similar east/west baseline was surveyed beginning at the south end of Lake St. Clair. All property descriptions in Michigan refer to the intersection of these two lines. Henrietta Township is the first township south and east of that initial point. An Initial Point Monument (see photo) marks the intersection in the Meridian-Baseline State Park established in 1974. Thirty-five acres of the 87-acre park are in Henrietta Township and the rest is in Rives, Leslie and Bunkerhill Townships.



Initial Point Monument in the Meridian-Baseline State Park

In 1816, John Batteese Berrard (Baptise Barboux) ventured into the area and established the first Indian trading post in Jackson County near the east shore of present day Batteese Lake. Nearby were a Potawatomi Indian village and the intersection of three transportation routes -- Indian trails. Today a plaque (see photo) on the east side of Bunkerhill Road a half mile north of M-106 marks the believed location of his trading post.



Historic Batteese Indian trading post marker.

The land of the Indian and fur trapper dramatically changed when President Jackson signed the Indian Removal Act in 1830, opening the wilderness to pioneers. The next year John and Robert Davidson arrived and built a saw mill on the inlet at the north side of Batteese Lake. In 1835, John Westren purchased 1,800 acres around Spring Lake and renamed it Pleasant Lake. Others soon followed and on April 24, 1836 they held their first town meeting electing Sherlock Patrick supervisor and Alfred Hall justice of the peace. The township was first organized as West Portage in 1837 with 14 votes cast. Its southern border, the Portage River, was a major transportation route for those crossing southern Michigan by canoe. In 1839, the township was renamed Henrietta by H.H. Hurd Esq. after his native home in New York. By 1840 there were about 35 families in the township.

The era of scatter pioneers was soon replaced by rural family farms. By 1874 at least 210 farms and one small trading post populated the township. Layton's Corner, previously known as Westren's Plains, Westren's Corners and Henrietta Village, boasted a wagon shop, paint shop, harness shop, shoe shop, cooper shop, carpenter, two doctors, two blacksmiths, a broom machine, justice of the peace and an Episcopal Church in the 1870s. Farmers washed their sheep in pens at Cowing, Hankerd and Bartlett beaches on Pleasant Lake. A dance hall was built on the island with a wooden walk bridge connecting it to the west shore. According to Caleb Cowing "some of the boys coming back from island were unable to make it and would step off, getting a ducking". Cowing's Grove at the southwest corner of the lake became a well-known spot for watching hot air balloon ascensions and hosting farmer conventions which attracted an estimated 15,000 people. The Hankerd Hotel including roller skating rink and additional cottages were built in 1888. Two miles north, Holling Corners (birth place of famous author/illustrator Holing Clancy Holling) supported a school and inn. Four miles to the east on Territorial Road, Gassburg contained a pickle processing plant, store, a cluster of houses, doctor and the first Methodist Church building in the township. Roads were mostly single track and built and maintained by

requiring every man age 21-40 to contribute one day of labor or its equivalent. Seven school districts with an enrollment of 284 students dotted the township in 1874.

The center of commerce in the township changed when the Grand Trunk Railroad was built northeast from Jackson in 1883. From a one log house that served as depot, grew the first settlement in the township that resembled a town, Munith. A variety of stores, hotel, grain elevator, shops, homes, and most importantly a train depot became the business hub of the township. Gassburg dissolved in 1890; the doctor, store and even the church building were moved to Munith. The railroad opened markets for farmers outside the township that had only been accessed by horse and buggy. For example, 16 train car loads of livestock valued at \$39,405 were shipped to Detroit in 1919.. The train left mail at Munith, but the post master at Layton' Corners had to go to Henrietta Station, also called Root Station, to get the mail for his area. Telephone service in the township began in the early 1900s when Ed Carley built a telephone line with parts ordered from a catalogue and later operated the switchboard. The first paved road went through Munith in 1929 and 10 years later M-106. Access to better roads and closing of the railroad in 1974 factored into the decline of Munith as a business center.

Mechanization revolutionized farming during the early 1900s. The amount of land that a person could farm significantly increased as horses and oxen were replaced by tractors and other mechanized equipment. In 1921-22 a steam powered dredge straighten and deepened the meandering Portage River - creating the Portage River Drain. Several thousand acres of wetlands were drained with a system of ditches and tile that connected to the Portage. Onions, carrots, sod, lettuce and other crops replaced sedges and cattails. In 1948, Munith hosted the Onion Festival and claimed to be the "Onion Capital of Michigan". Fifty years later, lower crop prices, sediment eroded into the drain because of poor farming practices, flooding, and closing of the railroad forced farmers to abandon some of the most productive farmland in Jackson County. In 2012, almost all of the land along the Portage Drain has reverted back to wetlands which are protected now by conservations easements.

Unlike Munith, Pleasant Lake has continued to flourish; based, in part, on recreation. Clean freshwater for swimming, fishing and boating attracted retirees and commuters, many of whom work outside the township. Summer cottages were replaced by year-round residences. One of the main attractions was Bartlett's. Hugh Bartlett built a dance hall pavilion in 1928 that burned down in 1930 and then was rebuilt. From the 1930s to early 1950s, Bartlett's Resort was a regular stop for Big Bands and entertainers such as Duke Ellington, Glen Miller, Tommy Dorsey, Vaughn Monroe, and Doris Day. Later groups like Stan Kenton Orchestra, Woody Herman, Four Seasons, and Stevie Wonder entertained both young and old until the structured burned down in 1970. Rebuilt in 1971 it never regained the notoriety of previous years and was torn down in 2006. Today, Hankerd Hills' 27-hole golf course and restaurant fill the void left when Bartlett's burned.

Future Legacy

The Township is considered rural with a historically agricultural base. However a picturesque topography has favored residential use and over the last thirty years the Township has seen the number of residences greatly expand as the land is increasingly viewed as rural residential.

Protection of the Township's "rural character" is extremely important to the residents. People typically associate "rural character" with an overall perception of limited urban development, expansive open spaces of farmland and/or natural landscapes including woodlands, wetlands, and fields. Not only are these elements important in shaping the character of the Township, but also provide vital environmental roles including wildlife habitats, flood control, water purification, groundwater recharge and air quality.

Protection of "rural character", productive farmland and natural resources does not mean the prohibition of future growth and development. Constructively guided growth and development can assure its compatibility with the Township's existing natural resources and rural character. Effective site planning and zoning can minimize the negative visual impact of numerous residential developments by incorporating the protection of open spaces and natural resources.

The coming years will witness continuing growth in Henrietta Township. If protected, this area's wetlands, woodlands, and fields will continue to serve as an open space network. Public services will continually improve as the Township grows. Fire and police protection will be available to meet the needs of the growing community and the Township will continue to rely predominately upon on-site sewage disposal and private wells for potable water. Public sewer service will be limited to the Lakes area if introduced. All improvements to public services, roads, will be largely keyed to those areas of the Township intended to accommodate the future higher levels of growth and development as sufficient support and funds allow.

The original native inhabitants and early pioneers valued the regions natural resources and were good stewards of the land. The community still benefits from their forethought, welcoming environment, and quality of life legacy. Many descendants of the original settlers still reside in the area. Land use planning and continuing a heritage for future generations is dependent upon protection of the region's natural resources by using prudence and discretion in growth and development decisions. Public participation will continue to play an important role in Township decision-making and the community will exist as a cohesive entity living in balance with its natural assets.

Part 1
The Plan

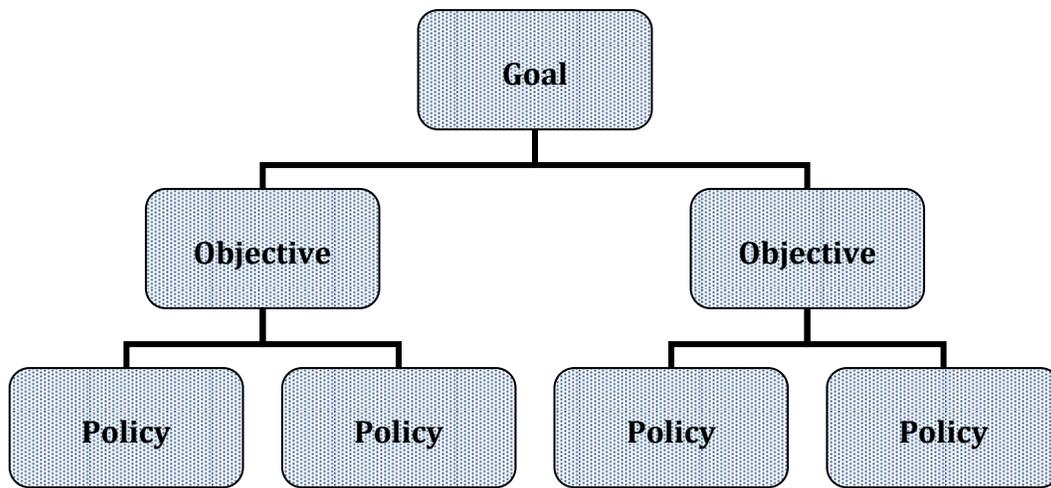
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Planning Framework

Part 1 of this plan provides the planning framework. This part consists of two sections including goals, objectives, and policies, and the land use plan. These result from analysis of data collected in Part 2 – Supporting Data and Analysis. First, definitions of the terms “goals”, “objectives”, “policies” are needed.

Goals are intended to address the identified issues and express a desired vision of the future. In the case of a master plan, goals express a community’s vision as to how the landscape should be shaped, what elements of the community should be preserved and protected, and how and where development should occur. Once goals are created, a means to bring them to reality must be established, which is the purpose of objectives and policies. The relationship among the three terms is illustrated in the following chart.



The goals, objectives, and policies of this plan are presented on the following pages, followed by the land use plan.

Goals, Policies & Objectives

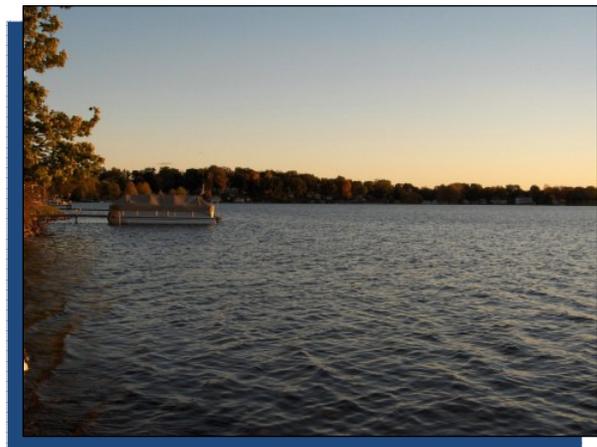
It is the policy of Henrietta Township to build a safe, healthy, and diverse community that meets people's needs today and prepares for the needs of the future. The Master Plan encourages quality growth concepts that preserve, enhance, and protect the community heritage and rural character of the natural environment and resource-based industries (i.e., agriculture, forest products, mining, recreation & tourism). The choices we make about what, where and how we build next must be evaluated for their economic and social benefit of the community. Decisions must be fair to the community as a whole with consideration for reusing, fixing, and conserving what we have before investing in new projects. We encourage innovation in development that maintains and protects the biological diversity of the area. The Township supports the recommendations from the Governor's Land Use Leadership Council which include the tenets of smart growth as a basis for building a heritage of sustainable communities. We must consider the full implications of our actions and our ethical responsibilities to the community.

I. Natural Features, Including Wetlands and Floodplains and Ground and Surface Water Quality

Goal: *Promote the sustainability of natural resource systems; at the same time encourage understanding and social responses to natural resources and their management.*

Policies and Objectives:

The Township recognizes that sustainable development is limited by its natural features (e.g., soil, groundwater, wetlands, environmentally sensitive areas, etc.) The Township is abundant in recreational open space, wetland and woodland habitats, biodiversity and productive agricultural land. In order to make responsible decisions about growth, the township government needs accessible information about potential environmental conflicts and retain environmental values, ecosystem function, green space, wildlife corridors, and biodiversity.



1. The township is encouraged to manage future growth and development that is consistent with the natural limitations of the land and availability of public services
2. Require development site plans to conform to the topography instead of the topography conforming to the site plan.
3. Provide analysis of soil types and their suitability for building site development. Areas of severe rated soils should be discouraged for the purpose of development.
4. There is a legal responsibility through Federal State, and County environmental protection laws to identify environmentally sensitive areas and ensure that appropriate land use controls are implemented.

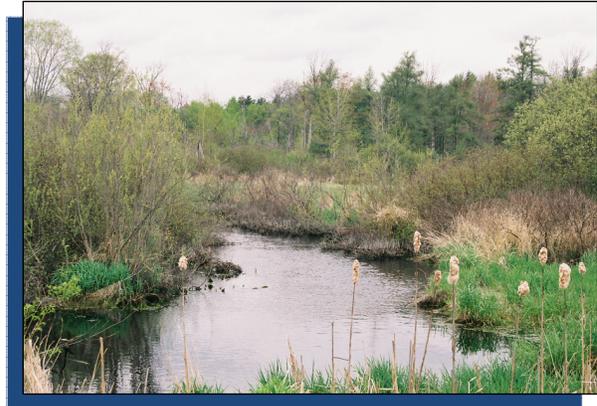
4. A landscape is a geographic unit of multiple and interacting ecosystems. Development decisions that continue to fragment native plants and animal's species from maintaining patterns of migration and gene flow should be discouraged. The Natural Features Inventory database provides probability of sensitive species and natural community occurrences that should be preserved from incompatible uses.

Wetlands and Floodplains

Goal: *Wetlands and floodplains shall be preserved in Henrietta Township.*

Policies and Objectives:

Wetlands and floodplains are deemed to be important to the proper functioning of the natural system. They serve as aquifer recharge areas, impede the flow of storm water, and reduce flooding. They filter pollutants from surface waters, provide natural open space and contribute to the natural diversity and habitat of flora and fauna. These areas present severe building and on-site sewer disposal limitations due to soil instability and saturation.



1. Proper permits must be obtained prior to issuing a building permit for construction in or adjacent to a wetland or floodplain area, according to federal, state and local regulations.
2. The township participates in the Federal Emergency Management Agency (FEMA) National Floodplain Insurance Program (NFIP).
3. The township encourages landowners to participate in state and federal floodplain and wetland preservation and restoration programs.
4. Encourage the use of buffer strips and greenbelt provisions that provide setbacks from sensitive natural features areas such as wetlands, floodplains, streams, shorelines, and high erosion areas.

Ground and Surface Water Quality

Goal: *Protect and improve quantity and quality of the ground and surface water.*

Policies and Objectives:

Surface water in the form of lakes, rivers, and streams afford residents recreational opportunities and aesthetic appeal. Ground water offers domestic water supply. The quality of well water is important to health and property value.

1. Inform citizens of practices that impact surface water quality.
2. Preserve natural vegetation immediately adjacent to bodies of water and apply best management practices in agriculture and other measures to address non-point source pollution.

3. Protect identified groundwater recharge areas from the introduction of contaminants and regulate storage of hazardous substances.
4. Encourage programs that plug abandoned or unused wells.
5. Encourage proper maintenance of on-site septic systems as recommended by the Jackson County Health Department.
6. Support future provisions for public facilities and services that can operate in a cost-effective manner.
7. Encourage shoreline protection measures that restore natural vegetation and reduce polluted runoff and overuse near shorelines
8. No principal structure shall be erected closer than the surface water setback line (i.e., 100 feet) except on nonconforming lots of record.

II. Agricultural Legacies

Goal: Encourage agricultural preservation of working farmlands.

Policies and Objectives:

Agriculture continues to play an important role in the history and rural character of this region. Substantial areas within the Township are used for agricultural production. These areas offer citizens economic livelihood, and result in the production of significant quantities of agricultural products that contribute to the health and vitality of the region's economy. Agricultural landscapes which are altered and fragmented, and create instability for the industry as urban and suburban population move into rural areas.



1. Encourage the agricultural community to participate in county, state, federal, and non-governmental farmland and conservation preservation programs.
2. Review zoning provisions to determine that they support agricultural activities and reduce residential use conflicts, and limit amounts of non-agricultural land uses.
3. Communities should seek to assist entrepreneurial agriculture by providing and promoting direct marketing of locally produced farm products, specialty crops, and agri-tourism.
4. Support Henrietta Township's participation in the Jackson County Purchase of Development Rights Program and encourage strategies and specific zoning concepts to retain productive agricultural land, if deemed appropriate.

5. Require natural buffers or setbacks where needed, to minimize erosion and protect water quality, when land development uses are adjacent to wetland and riparian areas.
6. Local developers and real estate agents should disclose to potential new residents that generally recognized agricultural activities associated with farming may be present and the Township does not consider such activities and operations as nuisances.
7. Define and preserve non-contiguous areas distributed throughout the township that are best suited for agricultural opportunities.
8. The Township supports the Right to Farm Act, the long term continuation of farming in the Township and local and state legislation which enables farmland owners to capture some of the development potential of their land while maintaining it in agricultural uses.



III. Housing Choices Including Lake Development

Goal: *Preserve existing residential neighborhoods and maximize housing choice in areas convenient to public services.*

Policies and Objectives:

Henrietta Township endeavors to maintain a pleasant and livable community that consists of a series of growth management tools. It strives not to limit or prevent growth, but rather to ensure that growth is facilitated in a manner that meets both the long and short term needs of the community and its residents.

1. Encourage residential development designs that place preservation of historic, scenic, natural environment and other community values on an equal basis with mobility, safety and economics.
 - a. Design plan and density of a development should be based on the identification of a property's natural assets and limitations (e.g., soil type, topography, natural features inventory and septic field compatibility).
 - b. Cluster residential development on smaller lots that concentrates infrastructure (e.g., roads, utilities and lot lines) in appropriate areas with access to many acres of common open space and natural resource systems.



- c. Support “accessibility” laws and regulations for people with disabilities and aging population.
2. Require physical buffers and, where needed, landscaping of native species, where residential uses are adjacent to wetlands and riparian areas, commercial, industrial and agricultural uses.
3. Minimize strip residential development by discouraging fragmentation of land parcels within rural areas.
4. Relate residential densities to the probability of future sewer and water services especially in lake front areas.
5. Encourage local developers and real estate agents to disclose to potential new residents that generally recognized agricultural activities associated with farming may be present and the Township does not consider such activities and operations to be nuisances.

Lake Development

Goal: *The Township endeavors to protect the public health, safety and welfare, and preserve the lake and shoreline character.*

Policies and Objectives:

The Township's lake areas have witnessed considerable residential development and have the highest residential densities in the community. This places tremendous pressure upon the aesthetic, environmental, and recreational values of the lakes. These resources are at risk due to potential degradation through shoreline erosion, septic field leaching, sediment discharge, alteration of the natural landscape, and excess use of surface waters by water craft.

1. Keyhole, or funnel development should not be permitted. Digging of canals to increase Lake Frontage access to back lot residences results in greater lake use than would “normally” occur increasing potential shore erosion, loss of property values, pollution and increased lake maintenance costs.
2. The plan encourages the renovation and/or redevelopment of lakefront areas which are or may become characterized by deteriorating conditions of both a visual and/or structural nature.
3. Development densities should not exceed one dwelling unit per acre and not exceed one dwelling unit per ¼ acre where public sewer service is provided.



IV. Commercial

Goal: *Allow commercial land uses of a scale and nature that are compatible with available public infrastructure and services, which preserve the rural character of the Township and meet the needs of residents.*

Policies and Objectives:

1. Ensure that commercial land uses have adequate provisions for sewage disposal, storm water management, potable water and other critical public health and welfare concerns.
2. Eliminate “strip commercial” land uses along roadways and promote redevelopment and restoration of existing commercial areas.
3. Encourage location of commercial services (convenience stores, professional offices, bank, restaurant, etc.) within walking distance of residential development areas.
4. Encourage designs to be pedestrian-friendly environments that minimize parking lots and encourage shared parking.
5. Control the size and number of advertising signs and/or billboards in all commercial districts and roadways.
6. Encourage native species landscaping and buffer zones to adjacent properties.



V. Industrial

Goal: *Consider industrial development that will complement the rural residential and agricultural character of the Township. Suitable locations for limited industrial development will be considered in order to increase the employment base of Henrietta Township.*

Policies and Objectives:

1. Encourage new industrial development to locate in areas of existing industrial facilities and/or in areas of highly compatible surrounding land use.
2. Provide adequate safeguards to minimize the negative impacts of industrial activities on roads, adjacent land uses and the environment.
 - a. Require buffering, (i.e., native species landscaping/visual barrier) between industry and non-conforming land uses.
 - b. Locate industrial uses where sufficient infrastructure can support these uses.
 - c. Ensure that industrial land uses have adequate provisions for sewage disposal, storm water management, potable water and other critical public health and welfare concerns.



- d. Encourage light, clean industry that respects the environment and neighboring residents and minimize truck traffic on non-arterial and low traffic volume roads.

VI. Transportation

Goal: *Create a transportation network which facilitates safe, efficient movement of vehicles and pedestrians while protecting and preserving sensitive environmental areas throughout the Township.*

Policies and Objectives:

1. Inventory and assess potential traffic hazard locations, (i.e. roadway intersections).
2. Require developer financing of private road extensions planned to service new development built to minimum County construction standards.
3. Coordinate with the Jackson County Road Commission and/or the Michigan Department of Transportation to assure adequate provision of right-of-way to accommodate planned extensions/designs.
4. Work in conjunction with the Jackson County Road Commission and/or MDOT to reduce the number of curb cuts permitted for residential and commercial developments and encourage the use of combined drives to serve adjacent properties.
5. Accommodate alternative means of transportation by establishing a network of biking and walking routes along public right-of-ways in appropriate locations throughout the Township.
6. Encourage Complete Street (Michigan Transportation Fund Law (Act 51) and PA 135 of 2010 (Act 33) guiding principles that promote a safe and environmentally friendly interconnected network of access for pedestrians, bicyclists, motorists and transit riders of all ages and abilities in a manner appropriate to the community.
7. Encourage a high priority for allocating transportation resources on addressing public health and safety concerns by providing a sustainable transportation system that functions for all travel options.

VII. Recreation and Open Space

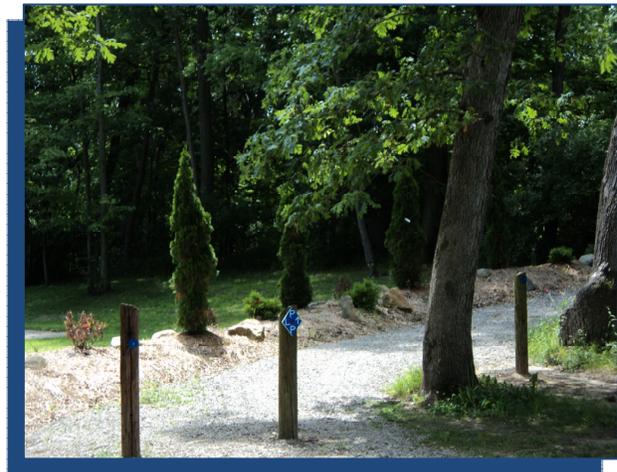
Goal: *Provide and protect open space and recreational opportunities for current and future needs.*

Policies and Objectives:

Demands for recreational opportunities increase with population growth and available land resources for recreation decrease as residential and other land uses consume greater amounts of what was previously open space and potential outdoor recreation land. Recreational lands must be purposefully pursued and are planned for through the Township's Recreation Plan, as with any other principal land use.



1. Protect or regulate development and reduce fragmentation of environmentally fragile areas and maintain them for recreational and/or educational purposes.
2. Encourage the establishment of public lands and parks in Henrietta Township.
3. Support Federal, State and Local open space preservation programs and encourage availability of locally leased land for hunting sports.
4. Discourage the use of poorly designed outdoor lighting that creates glare and unnecessary up-light pollution of the night sky.
5. Recognize the need to preserve and/or restore the Greenways system (diverse wetland areas, drainage ways, and forest lands) that helps assure high quality surface water, native species, wildlife habitat and movement.
6. Utilize existing fragile lands or existing natural resource areas as buffer zones of open space between adjoining land uses (i.e., housing units and agricultural operations).
7. The Township will adopt incentives to encourage the provision of open space and recreational areas within future residential development projects.
8. Encourage future recreation fitness opportunities with added layering of activities within parks. Link trails with primary population centers, facilitating movement to and within recreation areas for pedestrians, bicyclists, equestrians and the physically challenged.
9. Promote an information network between regional and local officials and citizens (i.e., newsletters, bulletins, website, mailings etc.).



Future Land Use Plan

The Master Plan is a practical representation of vision, goals and objectives that have been defined for the future development of the Township. It sets forth a plan for continued growth that minimizes existing and potential land use problems, capitalizes on opportunities and potentials available to the Township, and encourages development in a manner that promotes the health, safety, and welfare of Township residents. Based upon analysis of Township population trends, the economic base, and regional assets, the Plan is designed to enable the township to control the location and integrate various forms of development, and to calculate cost-effective programs that provide facilities and services necessary to maintain a viable rural community.

The appropriate location for, and intensity of future residential and commercial development will be largely based upon the existing or planned availability of public services to support new land uses and assure the public's health, safety and welfare. The extent to which public services will be expanded within the township will be based upon any available financial resources, the long range land use pattern in cooperation with neighboring jurisdictions, and protection of environmental features.

The Master Plan is not an ordinance and does not have the force of law. The Master Plan serves as a basis for the Zoning Ordinance. The zoning ordinance is a short-term view that creates zoning districts in which permitted land uses are listed and includes a Zoning Map indicating where zoning districts are located in the community. According to the Michigan planning and zoning enabling acts, the zoning categories indicate the preferred locations for various types of land use. The categories are described in the following sections.

High-Density Residential Areas

High-density residential areas are addressed in clustered neighborhoods proximate to lakes, the Village of Munith, and Mobile Home Parks on the future land use map and are limited to those portions of the Township which are supported by existing infrastructure.

Commercial Areas

These areas are limited to those portions of the Township which are supported by existing infrastructure. Additional commercial expansion may be accommodated as required to serve the Township population.

Industrial Areas

Industrial land use is limited to one district in the Township and supported by existing infrastructure on the future land use map.

Public/Quasi-Public

Land uses such as parks, recreation and open space under this category are allowed in most zoning districts either as a permitted or conditional use.

Areas of Special Environmental Concern

The following limited use areas identified on the Natural Resources Preservation Implementation Map, and Future Land Use Map as environmentally sensitive or are important to Township drainage, ground water recharge, and habitat for wildlife. They include wetlands, hydric soils, floodplains, ground and

surface water, and forested areas.

Agriculture

The agricultural designation includes productive farms including areas identified as agricultural preservation areas and open space Low-Density Residential R-1 areas are addressed generally throughout the township where a low-density residential development pattern has already been established.

DNR

State of Michigan park lands indicated on the future land use map category are allowed in most zoning districts either as a permitted or conditional use.

Zoning Plan

The Henrietta Township Master Plan provides the legal basis for the zoning in Henrietta Township. The following Michigan statutes related to planning and zoning are MPEA – the Michigan Planning Enabling Act (PA 33 of 2008), as amended, requires that the Plan be reviewed and evaluated a minimum of once every five years and evaluated for consistency with existing land use development trends and demographics, and MZEA – the Michigan Zoning Enabling Act (PA 110 of 2006), as amended, list a number of planning, zoning, and administrative duties for township planning commissions.

The Zoning Ordinance is the primary instrument used tool to implement the Plan. The zoning ordinance reflects the realities of existing land uses and gradually, as development is proposed, directs the form and location of growth to achieve the goals of the plan. As the Township continues to grow and rezoning of certain areas occurs, the zoning map will increasingly resemble the future land use map and goals of the Plan.

Among the Zoning Ordinance measures that should be considered to implement the Plan are overlay zoning districts for such purposes as natural features preservation, agricultural preservation, mixed use zoning, commercial corridor enhancement, and historic preservation. Residential development standards should continue to provide appropriate developments with adequate buffer zones and concurrent infrastructure.

The Zoning Plan equates the various zoning districts with the various categories included on the future land use map.

High-Density Residential Areas

- R-1 - Residential
- R-2 - Residential
- MHD-1- Mobile Home District

Commercial Areas

- C-1 - Commercial
- C-2 - Commercial
- C-3 - Commercial

Industrial Areas

- I-1 – Industrial

Public/Quasi-Public

- AG-1 - Agricultural
- R-1 - Residential

Area of Special Environmental Concern

- AG-1 - Agricultural

Agriculture

- AG-1 - Agricultural
- R-1 - Residential

DNR

- AG -1 - Agricultural

Please refer to the Henrietta Township Zoning Ordinance for up-to-date information on the dimensional and use standards for each of the districts cited above.

Plan Implementation

The document contained herein is the land use policy of Henrietta Township. The Land use policies will serve as a guide to zoning decisions. The zoning ordinance is the Means by which the land use policies found in this document are to be implemented.

The land use plan is, therefore, a tool to be used in zoning determinations. No Land use plan can anticipate all potential problems or conditions which may arise, nor can it predict or prescribe exact locations of future land uses. The plan should be Examined periodically in order to determine if changes are appropriate, and to adjust the plan accordingly. The plan should be examined at least once every two years, or at other appropriate intervals to keep abreast of changing conditions and trends.

The concepts and principals expressed within the master plan are statements of township policy toward land use and as such are the underlying features to be followed in directing land use. While the future land use map is flexible and may be changed, the application of the policies inherent within assure a pleasant, efficient, and healthy future for land use with Henrietta Township.



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Part 2
Supporting Data and Analysis
Henrietta Township Master Plan | 2014-2018

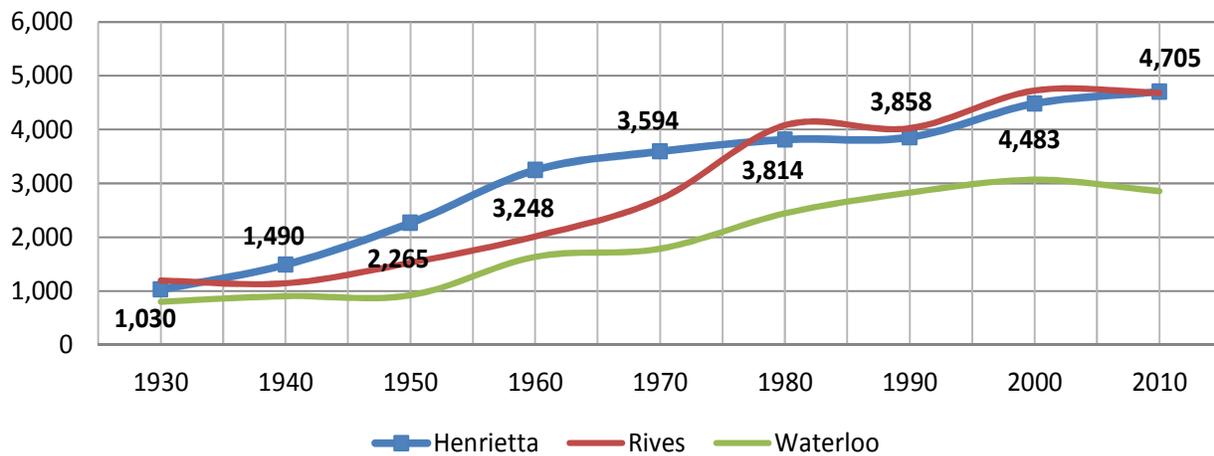
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Population and Housing

Population Growth

The population of Henrietta Township was 4,705 in 2010, according to the US Census. The populations of the townships of Rives and Waterloo in that year were 4,683 and 2,856, respectively. The average annual population growth rate in Henrietta Township between 1970 and 2010 was 0.8%. The average annual growth population growth rate increased to 1.1% between 1990 and 2010. However, the average annual growth rate between the Year 2000 and 2010 was only 0.5%. The growth in population in northeast Jackson County is partially the result of out-migration from the City of Jackson and the Detroit-Ann Arbor metropolitan areas.

Historic Population Growth



	1930	1940	1950	1960	1970	1980	1990	2000	2010
Henrietta	1,030	1,490	2,265	3,248	3,594	3,814	3,858	4,483	4,705
Rives	1,198	1,146	1,529	2,017	2,708	4,081	4,026	4,725	4,683
Waterloo	804	908	924	1,638	1,788	2,444	2,830	3,069	2,856

Source: US Census Bureau

Population Forecast

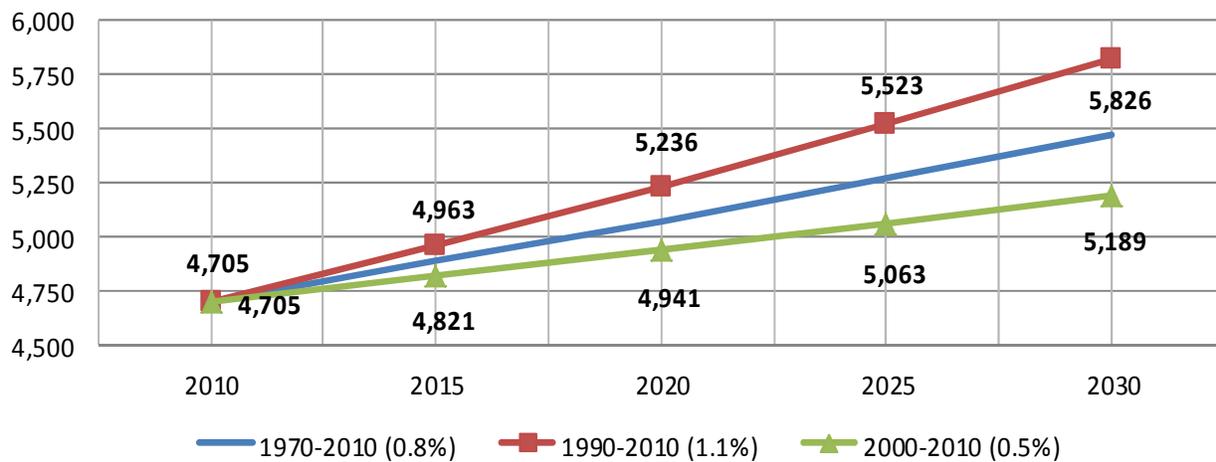
Population projections are estimates, usually based on past trends of real growth. The period of time used in this study is 2010 through 2030 (i.e., 20 years from the official 2010 census data). Various factors play a role in the future population of a given area (e.g., births, deaths, in-migration, and out-migration). A change in one factor affects the others. In the following figure, population has been projected at five year intervals which can easily be changed as situations occur (nationally as well as locally) which affect local migration patterns, such as a new industrial or housing development.

A simple projection model has been used to estimate population growth that might reasonably be expected in the future for the Township. The *Linear Method* is based upon the following formulas.¹

$$P_n = P_o (1 + r) \quad r = \left(\frac{P_o - P_m}{P_m} / Y1 \right) Y2$$

Based upon the annual growth rates of 0.8%, 1.1%, and 0.5% from 1970-2010, 1990-2010, and 2000-2010, respectively, the population of Henrietta Township is projected to be between 4,963 and 4,821 by 2015. By 2025, the population is projected to be between 5,189 and 5,826. However, it should be noted that the Michigan Department of Technology, Management, & Budget estimates the population of the Township was 4,699 in 2012, a loss of 6 residents. It may be prudent to utilize the lower population projections, based upon that estimate, at least in the short term.

Population Projections



	2010	2015	2020	2025	2030
1970-2010 (0.8%)	4,705	4,887	5,076	5,272	5,475
1990-2010 (1.1%)	4,705	4,963	5,236	5,523	5,826
2000-2010 (0.5%)	4,705	4,821	4,941	5,063	5,189

Source: Region 2 Planning Commission

Build-Out Analysis

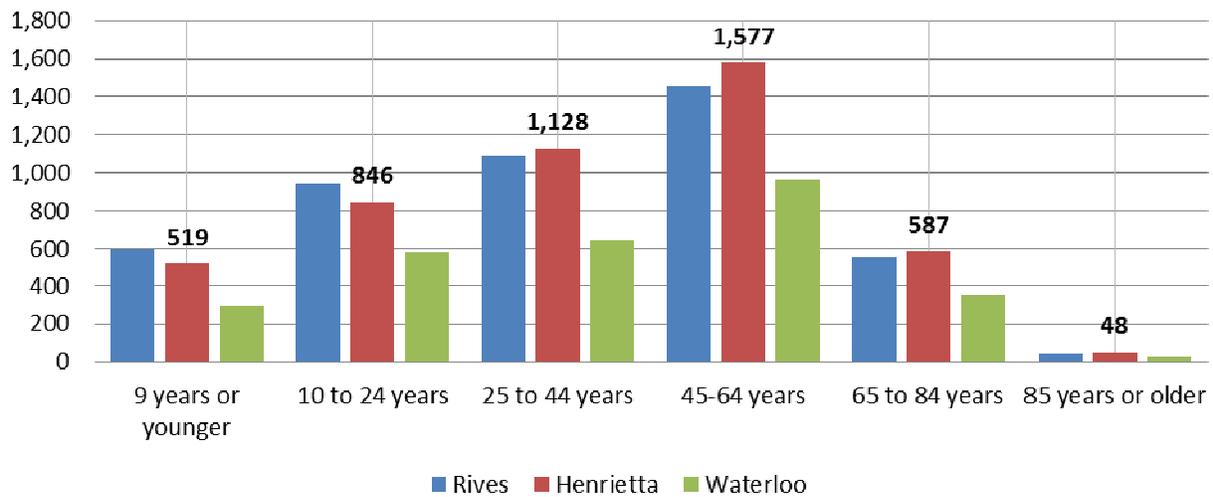
Related to the population projection, a build-out analysis was conducted as part of this plan to determine whether an oversupply of land is planned and zoned for residential use in the township. That analysis determined that current zoning would accommodate more than 90,000 residents. This information is useful in determining the amount of land needed for future residential development. Details regarding the built-out analysis are found in the ASTI Environmental 4-step report.

¹ "Pn" is the future population level, "Po" is the base population level, "r" is the growth rate, "Pm" is the past population, "Y1" is the historic time period (20 years), and "Y2" is the future time period (5 years).

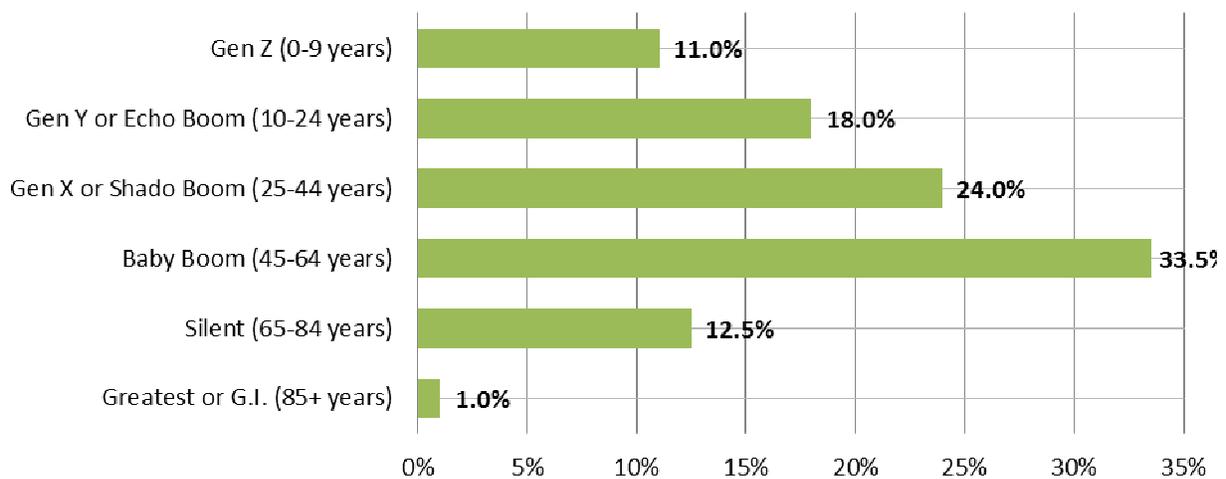
Age of the Population

Following a national trend, the median age of the population of Henrietta Township is increasing. The median age of township residents was 43 years in 2010, up from the median age of 36 and 33 in the Year 2000 and 1990, respectively, according to the US Census. The following figures provide addition detail regarding the age structure, marriage status, and presence of children for township households.

Age of the Population in 2010



Generations in 2010

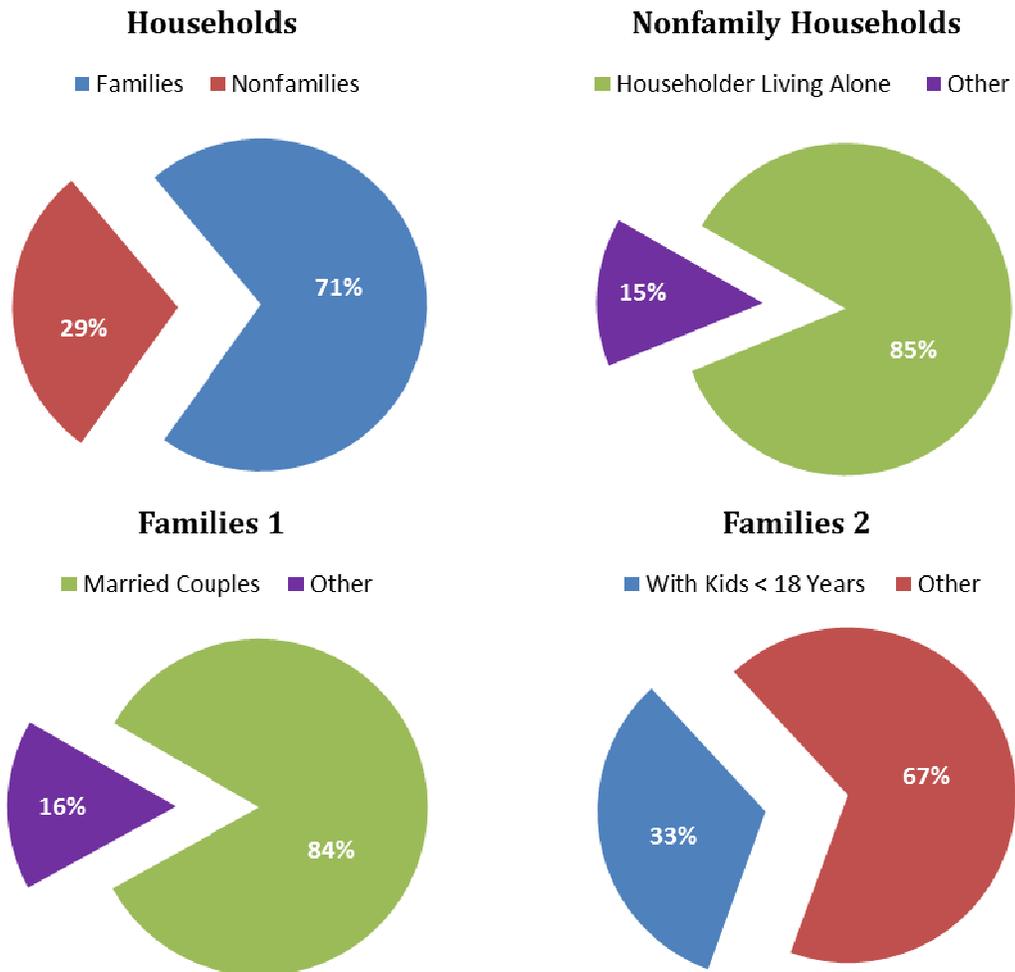


Household and Family Characteristics

Employment data is estimated by the American Community Survey (US Census) for people 16 years of age or older. The most recent employment data available for Henrietta Township is for the American Community Survey’s 2007-2011 reporting period.

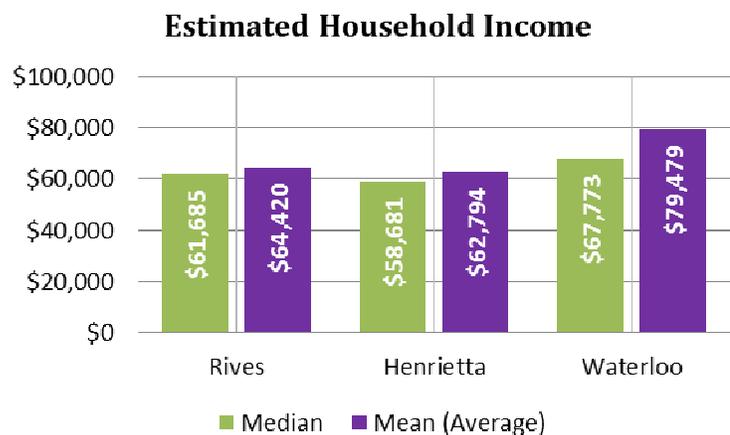
Family and Nonfamily Households

As the following figures show, approximately 71% of households in the township were comprised of families in 2010. Persons living alone accounted for 85% of nonfamily households, according to the US Census. Married couples comprised 84% of family households. However, families with kids under 18 years of age only comprised 33% of family households.



Household Income

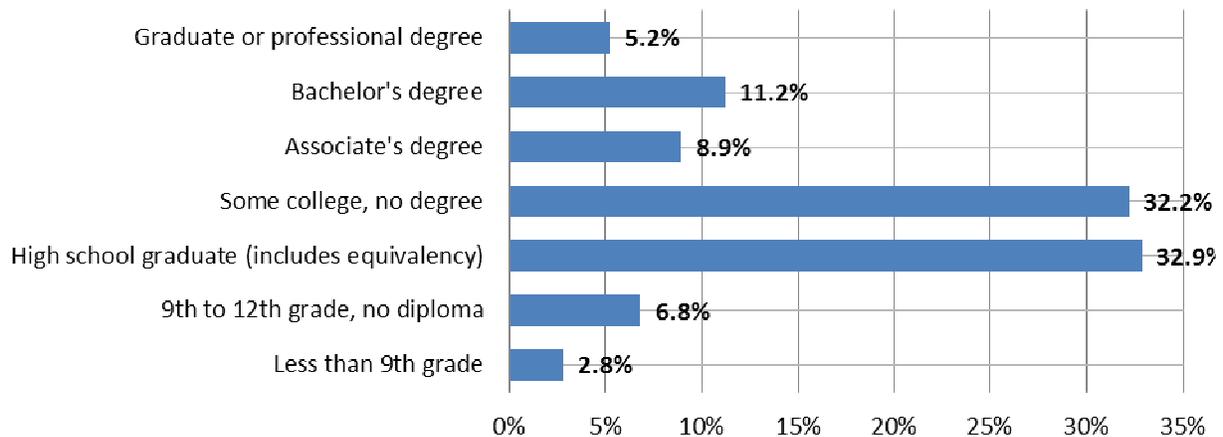
The mean (i.e., average) income for Henrietta Township households between 2007 and 2011 was estimated to be \$62,794 a year, according to the American Community Survey (US Census). The median income for the same time period was estimated to be slightly lower at \$61,685.



Education

A large percentage of residents living in the township between 2007 and 2011 had continued their education after completing high school, according to the American Community Survey (US Census). This is reflected in the numbers of residents with some college or a college degree. A total of 90.4% of residents had at least a high school diploma, and 25.4% had earned an associate’s degree or higher.

Educational Attainment



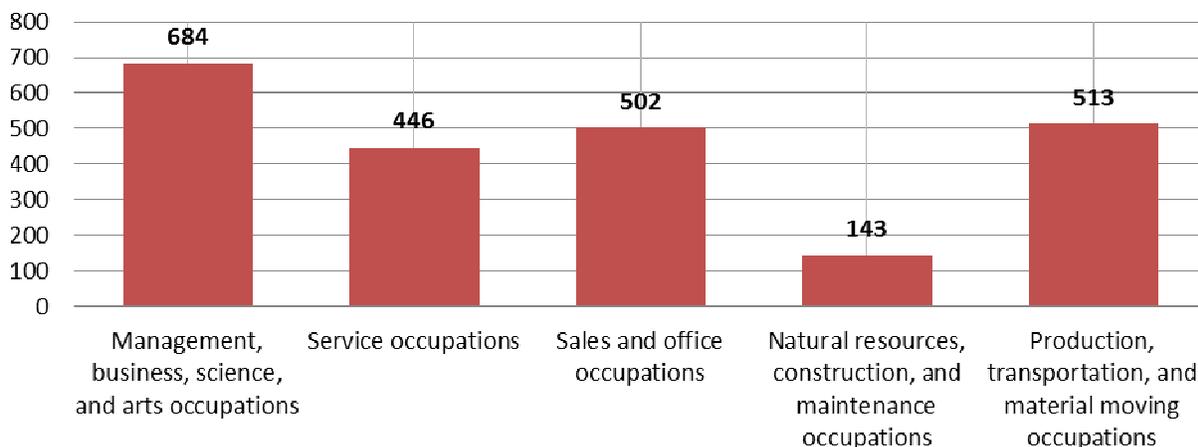
Employment

Employment data is estimated by the American Community Survey (US Census) for people 16 years of age or older. The most recent employment data available for Henrietta Township is for the American Community Survey’s 2007-2011 reporting period.

Occupations

Occupation is a term that describes the nature of a job. The top occupational category in Henrietta Township was estimated to be management, business, science, and arts occupations (29.9%). Many residents were also employed in production, transportation and material moving occupations (22.4%); sales and office occupations (21.9%); and service occupations (19.5%).

Employment by Occupation

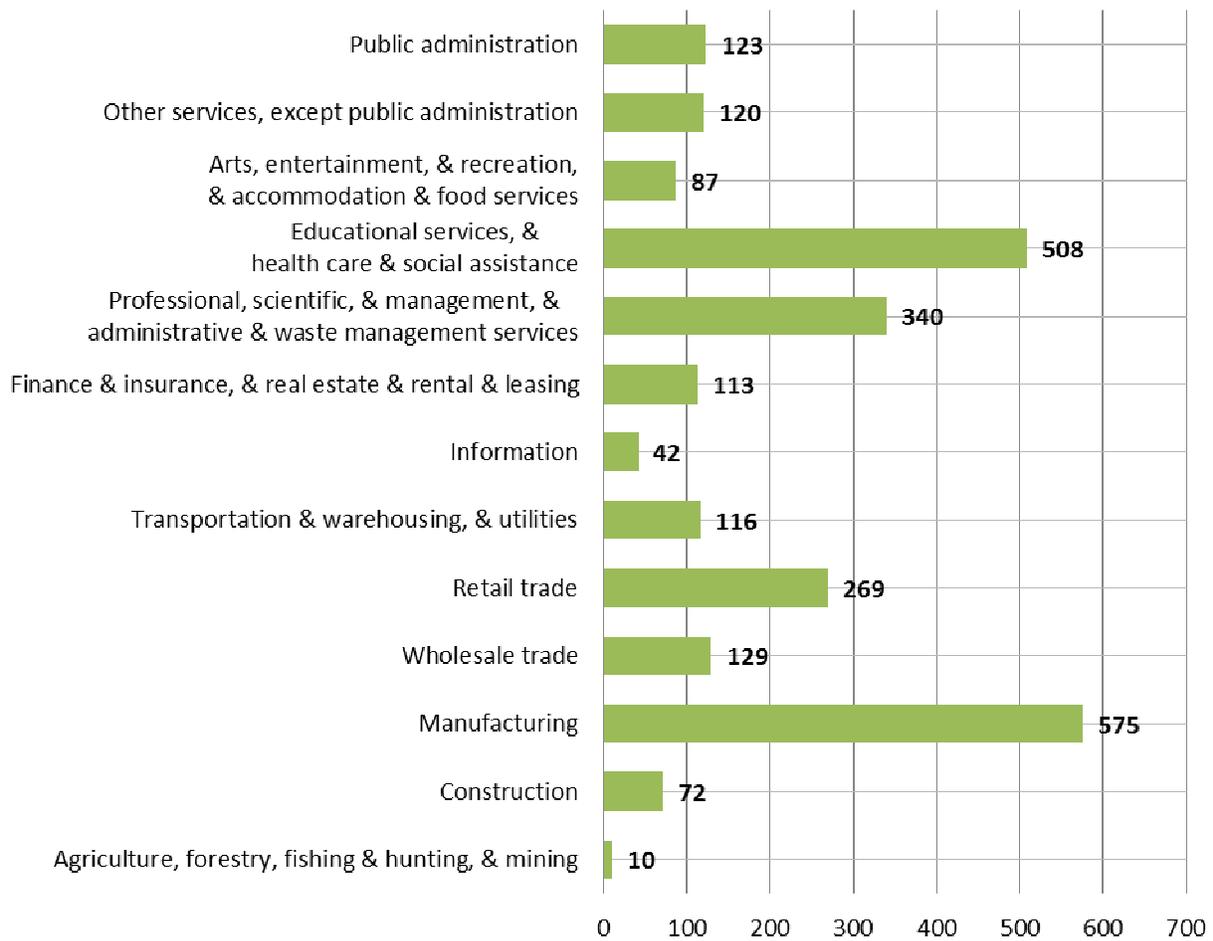


Industry

Industry, which describes the type of company that employs the worker, supports the largest number of workers at 24.4 percent in manufacturing jobs. The fields of education, health and social services provide 13.1 percent of jobs to residents.

Henrietta residents reflect levels of higher education and skilled trades needed for changing employment opportunities. However, the average time spent commuting is 32 miles one-way.

Employment by Industry



Housing

There were an estimated 2,073 dwellings in Henrietta Township between 2007 and 2011, according to the American Community Survey (US Census). It was further estimated that 87.3% were occupied; 7.6% were utilized seasonally, recreationally, or occasionally; and 5.1% were vacant. It is interesting to note that townships which contain lakes tend to have higher percentage of seasonally-dwellings. However, many of those summer cottages have been converted to full-time residences. Such conversions can have a negative effect on the condition of a lake when the area is not served by municipal sewers.

Township	Housing Units (Dwellings)				Median Home Value	Rental Units	Median Rent
	Total	Occupied	Seasonal	Vacant			
Henrietta Township	2,073	1,810	157	106	\$147,800	175	\$835
Rives Township	1,776	1,697	9	70	\$125,200	271	\$1,113
Waterloo Township	1,298	1,056	87	155	\$169,700	61	\$691

Source: 2007-2011 American Community Survey, US Census

Housing Costs

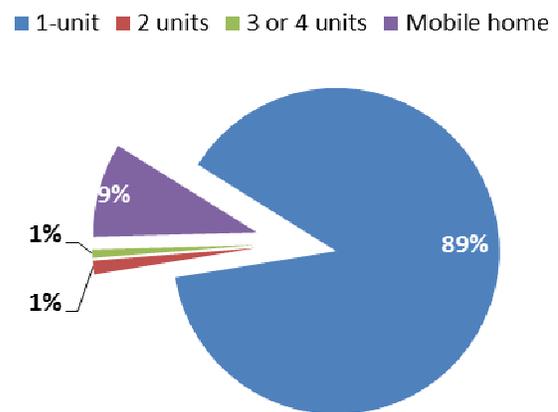
In 1990, the median house value in Henrietta Township was \$53,000 and the median household income was \$34,100. It is estimated that the median house value rose by 279% to \$147,800 while the median household income only increased by 172% to \$58,681 for the 2007-2011 reporting period, according to the American Community Survey (US Census).. Housing affordability is often measured in terms of housing costs as a percentage of income. Some housing agencies believe that housing is not affordable if the occupants are spending more than 30 percent of their income on housing costs. The American Community Survey estimated that 44.3% of Henrietta Township rental households spent 35% or more of household income of housing costs during the 2007-2011 reporting period. It was further estimated that 29.7% of owner-occupied households with mortgage during that time period spent at least 35% of household income on housing costs. Finally, it was estimated that only 4.4% of owner occupied households without a mortgage during that time period spent at least 35% of household income on housing costs. Safety and risks posed to residents by long emergency response times must be taken into account before approving new scattered development.

General Housing Characteristics

According to the American Community Survey, it is estimated that the vast majority of dwellings in Henrietta Township were single-family homes. It is further estimated that 87.3% of dwellings were owner-occupied and 12.1% were renter-occupied. Finally, it is estimated that almost 40% of dwellings in the Township were built after 1989.

Drilled wells are the main source of water for residences and businesses in the Township. The principal method of sewage disposal is by means of a septic tank and tile field. Consumers Energy provides utilities to the Township although natural gas is not available to the entire Township. According to the American Community Survey (US Census), an estimated 61.9% of homes are heated by natural gas. Other estimated heating sources consisted of 22.8% bottle, tank or LP gas; 8.8% wood; 3.4% electricity; 1.8% fuel oil or kerosene; and 0.4% other. Apparently, 0.9% of dwellings had no heating source.

Dwellings in a Structure



Physical Setting/Natural Features of Henrietta Township

Physical Setting

Like all of Michigan, the 37.1 square miles total land area that makes up Henrietta Township was formed and shaped by glaciers. Glaciers scratched the surface of the earth and carried sediments. When the glaciers melted, they deposited the sediments and the melting ice created rivers and many lakes in the area. The glaciers receded approximately 15,000 years ago. This section presents information on the results of glaciation including topography, soils, watershed, and related natural features.



The function of these features provide water quality and quantity, floodwater retention, air cleaning properties, wildlife habitat and travel corridors, sources of genetic diversity, and recreation. Preservation of the natural features and functions increase the value of developed properties and sustain the quality of life in a community. Air quality in the Township is 82 on a scale of 100 (higher is better), based upon EPA ozone alert days and number of air pollutants. Water quality is 50 on a scale of 100 (EPA measured watershed quality using 15 indicators). The Superfund Index is 60 on a scale of 100 based upon EPA pollution sites in the county and spending on cleanup efforts.

Topography

The topography of Henrietta Township ranges from flat to steeply sloping. The elevation averages 910 feet above sea level. The highest land in the Township is found in Section 7 with elevations of 977 feet above sea level. The lowest areas are found in the southern sections of 33 and 34 where elevations of 904-907 feet are common.

A large area south of Pleasant Lake and smaller area west of Portage Lake are composed of out-wash plains. This sediment is typically silt, sand and clay that was suspended for a period of time in water. Moraines can be found in the southern portion of the Township.

Watershed—Lakes, Rivers, Streams, Wetlands

A watershed is an area of land in which all surface waters drain to a common outlet. Watershed management involves a regional approach because as water travels across the land it picks up sediment and other pollutants. The drainage pattern in the Township follows the topography and is part of the Upper Grand River Sub-watershed of the Grand River Watershed that flows into Lake Michigan. It includes eight watershed “sub-basins” found in Henrietta Township: Orchard Creek, Cahaogen Creek, Wild Drain, Western Creek, Batteese Creek, Portage



River Lower Branch, Portage River Middle Branch, and Portage River Drain. The northwest section of the Township contains Pleasant Lake which is the largest lake among the other lakes of White Lake, Batteese Lake, Mud Lake, and Twin Lakes.

Lake	Approximate Area	Elevation	Public/Private Status
<i>Pleasant Lake</i>	269 acres	922 feet ASL	Public
<i>White Lake</i>	70 acres	929 feet ASL	Public
<i>Batteese Lake</i>	109 acres	924 feet ASL	Public
<i>Mud Lake</i>	14 acres	939 feet ASL	Private
<i>Twin Lake</i>	24 acres	--	Private

Source: ASL = above sea level

Henrietta Township has a 2.42% total open water area. Of the total, almost 75% of the soils have severe limitations and are classified as wetlands (see wetlands map). Wetlands are characterized by vegetation and hydrology such as surface areas that are usually saturated with water, and unique type of hydric, or moisture containing soil which is the dominant factor determining the types of plants and animals living there. These areas are transitional between terrestrial and aquatic systems where the water table is at or near the surface. Wetlands may be covered by water for all or part of the year and may appear to be dry land at times. Wetlands associated with streams, rivers and lakes capture and retain water, reducing the duration and severity of floods. Inland wetlands intercept surface flow and slow it down, reducing the potential for floods and minimizing drought. Plants and soils in wetlands purify water by filtering fertilizers, sediments, and toxic chemicals. Wetlands provide habitat for many species of birds, amphibians, mammals, insects and plants. Many threatened and endangered plants and animals rely on wetlands for survival. Wetlands provide for a variety of recreational purposes, including fishing, hunting, bird watching and canoeing. Wetlands of five acres or more are regulated by state statute under the Department of Environmental Quality (DEQ). A large portion of the wetlands found in the Township are located around Batteese Lake, Batteese Creek and the Portage River Drain. The following table shows approximate acreage of the lakes and whether they are public or private.



Soils

Soils were formed when receding glaciers deposited silt, loam, and sand on bedrock formed during earlier geologic times. The depth of the deposits ranges from a few feet to hundreds of feet. When soils were deposited on flat surfaces with the bedrock at a considerable depth, the result was dark, rich soils ideal for farmland. If the soils were formed into hills, much of the rich soil will have washed out and the slope reduced the desirability of the land for farming. Information on evaluation and classification of soil types in Henrietta Township is available electronically through the "Soil Survey of Jackson County, Michigan, 1981 US Dept. of Agriculture.", website from the Natural Resources Conservation Service (NRCS) and Jackson County Conservation District. To maintain the agricultural economy of the county the most productive soils need to be preserved in the agricultural districts. Areas identified in these districts on

the Prime Soils Map and the Farmland Preservation Area Map are eligible for funding under the Michigan Farmland and Open Space Preservation Act purchase of development rights program.

On-Site Septic Disposal

Soils are suitable for on-site septic disposal if they percolate quickly enough to be used for tile fields. However, soils should not be so permeable that they allow contamination of groundwater. The purpose of the assessment of soils for on-site septic disposal is to rate the suitability of the soil for residential use in the absence of public sewer facilities, and so intensive development can be avoided in areas of unsuitable soils. Approximately 43% of the Township has soils with slight limitations, 17.1% with moderate limitations and 37.5% unsuitable for development.

The Jackson County Health Department classifies soils as suitable, limited and not suitable for on-site septic disposal. The problems associated with suitable and limited soils can generally be overcome with little difficulty. Many unsuitable soils limitations can also be overcome using modern engineering techniques. However, the costs associated with overcoming these limitations can be high. The soil survey should not be used on a site specific basis, the soil maps provide a general indication of where more intensive development can be encouraged.

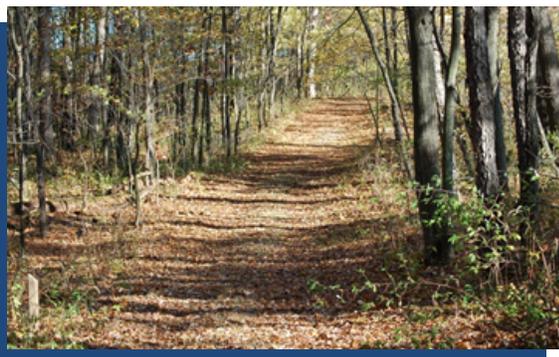
Productive Farmland

Farmland is an economic asset. Environmental and recreational opportunities are enhanced greatly by local farmland. Scattered development undermines the viability of the farming community. Productive or prime and unique farmland soils exhibit the best combination of physical and chemical characteristics for producing feed, forage, fiber and oilseed crops. The characteristics include the ability to retain moisture, acceptable acid level, acceptable sodium and salt content, lack of stones, permeability to water and air, and low susceptibility to erosion. The Townships has approximately 23,769 acres of agriculturally productive soils. Muck composes 26% of these soils.



Cost of Community service studies conclude that farmland generate a fiscal surplus to help offset the shortfall created by residential demand for public services. Landowners have approximately 2,518 acres enrolled in the present State PA 116 farmland protection program. Voluntary participation in a future Purchase of Development Rights County program is encouraged to permanently preserve productive agricultural land.

Woodlands



Trees, vegetation and associated natural resources, as identified on the Forested Areas Map, provide a material aspect of the character of the Township. Trees and woodland growth serve as an essential component of the general welfare by maintaining important physical, aesthetic, recreational and economic assets. Woodlands provide for public safety through the prevention of erosion, siltation, and flooding. These natural features protect public health through the absorption of air pollutants and contamination including the reduc-

tion of excessive noise. The majority of the woodland areas are associated with the wetlands, streams and creeks creating natural corridors of green-ways.

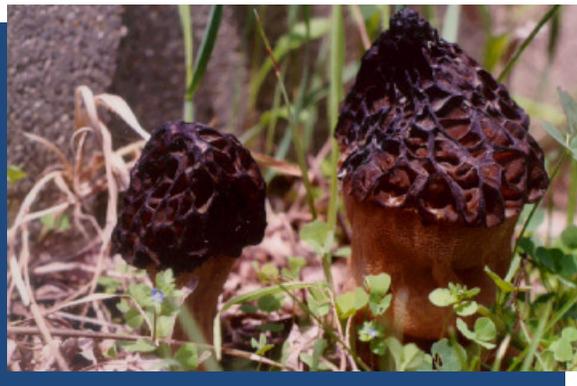
Greenways

The Township's natural features identify a network of greenways. The network generally follows wetlands areas, drainage ways, and forested lands. The network forms a natural corridor system which should be preserved. The preservation of this system helps to assure high quality surface water, wildlife habitat and movement, diversity, and can be used to help define urban growth areas. The greenways system sets a foundation for the development of the Master Plan within the natural system which exists in the Township and surrounding region. This natural system also offers citizens the opportunity to commune with nature and improve the quality of life within the community. The Upper Grand River Watershed Implementation Project focus area map provides a regional view.



Natural Features Inventory

The development of land can significantly impact the natural environment. Without careful consideration, land use decisions may unintentionally serve to undermine environmental protection objectives. Thus, when preparing a future land use plan, it is important to determine the extent of environmentally sensitive areas within the community. Destruction or disturbance of environmentally sensitive land areas might affect the community quality of life by: creating hazards such as flooding or slope erosion; contaminating important public resources such as groundwater supplies or surface water bodies; or wasting important productive lands and renewable resources. Each of these effects is detrimental to the general welfare of a community and may result in economic loss.



As part of the Upper Grand River Implementation Project (UGRIP), the Jackson County Conservation District (JCCD) proposed a pilot project demonstrating sustainable land use planning and policies for municipalities within the Portage River sub-basin. Henrietta and Waterloo townships agreed to participate in the pilot project, and ASTI Environmental was contracted in 2007 to inventory natural resources within the two townships and develop policy recommendations for natural resource protection. The process (4-Step Planning Review) followed in this project included:

1. Inventorying the township's natural resources;
2. Reviewing their master plans, zoning ordinances, and other land use policies;
3. Conducting a build-out analysis of existing plans; and
4. Recommending model ordinances and policies.

Refer to the report's summary for natural features maps, and complete details on methods, results, and recommendations stemming from the 4-Step Planning Review Process in Henrietta Township. Priority rankings are shown on the Natural Resource Preservation Implementation Project Map.

Despite development pressure in the region, Henrietta Township has retained a good deal of its rural character. Unlike neighboring Waterloo Township however, Henrietta Township does not contain extensive state-owned recreation lands. Approximately 52% of Henrietta Township is woodlands, wetlands, grasslands, parks, or lakes. When viewed in a regional setting, this contiguous block of natural area extends beyond the township's boundaries into neighboring townships such as Waterloo, where it connects to six miles of contiguous forest that the Michigan Natural Resources Inventory (MNFI) has identified as one of the largest blocks left in southeastern Michigan. Approximately 9% of the circa 1800 land cover may remain as remnant habitat in today's Henrietta Township landscape. A local ordinance would allow local review of development proposals for the remaining habitat, effecting approximately 5% of the township total land area. Township protection of these areas is important to protect regional biodiversity. Policies recommended:



1. A Wetlands, Watercourse, and Floodplain Ordinance.
2. A Natural Features Setback Ordinance.
3. A Woodland and Landmark Tree Protection Ordinance (with allowance for commercial logging).

Approximately 36% of the township is in agricultural use, with a majority of that located in a relatively small block in the northern ½ of the township. Appropriate agricultural protection zoning could significantly reduce the number of residential units possible within the township's agricultural district and lessen the fragmentation of farmland. Policies recommended:

1. Quarter-quarter or sliding scale agricultural zoning.
2. Inter-township discussion/coordination regarding farmland protection.

Less than 12% of the township has been developed for residential, commercial, and industrial, or other urban uses. The build-out analysis indicates that the township is greatly over-zoned to accommodate the projected 2025 population. This report encourages development of residential areas to meet population increases, while conserving prime agriculture and environmentally sensitive lands. Policies recommended:



1. Review site plan and building permit review checklist for sensitive and conserving prime agricultural land.
2. Review needs and priorities for commercial and residential expansion.

Existing Land Use

Existing land use patterns in Henrietta Township can be described as follows and reflected in the Existing Land Use Map.



Low-Density Residential

These areas include single-family residences developed at a density averaging one to five acres per dwelling. Low-density residential will be encouraged in areas which coincide with the best soils for septic systems and discouraged on prime agricultural and wetland soils, and floodplains. Low-density residential will serve as a transition area between the village of Munith, the lakes and the productive agricultural areas. These areas are in Residential 1 (R-1) and Agricultural (AG) zoning.

High-Density Residential

Residential developments that have densities greater than 1 dwelling per half acre are classified as high-density under this plan although the zoning ordinance may treat densities differently. Uses under high density residential may include single-family, two-family, multiple-family or some combination of these uses. This classification includes the southwest side of the unincorporated Village of Munith, and the areas of Pleasant Lake, Batteese Lake, Mud Lake, and White Lake. Land uses should be discouraged under this classification unless adequate public facilities and services are available to meet the needs of the proposed uses and such development does not outpace the Township's ability to effectively manage the rate of development. These areas are in Residential2 (R-2) Zoning.



Lake Residential

The lake residential classification is part of residential R-1 and R-2 zoning. It comprises the high-density residential areas around Pleasant Lake, Mud Lake, Batteese Lake and White Lake. The lake residential classification recognizes the unique characteristics and densities found in the areas of these four lakes. The lake areas have several common characteristics including unusual lot shapes and sizes, varied zoning variance requests, lake access issues, and many substandard septic systems. These areas are in the Residential 1 (R-1) and Residential 2 (R-2) Zoning.

Mobile Home Residential

The mobile home residential designation allows the development of mobile home parks in appropriate locations in the Township. The Pleasant Lake Mobile Home Community on M106 at Berry Rd. and areas of Hawkins and Jordan Roads are designated as mobile home parks. Permitted densities in mobile home parks are regulated by the Mobile Home Commission Act and the Jackson County Health Department. The Plan leaves room for expansion of existing mobile home parks. These areas are in Mobile Home District 1 Zoning (MHD-1).

Commercial

The Plan encourages commercial uses in limited areas that are located near intersections with major roads and/or in proximity to population concentrations. The commercial designations are found at Layton Corners (Meridian at Berry Road), M-106 & the Village of Munith, M-106 at Berry Road, and N. Meridian Rd. at Styles Rd. Lineal commercial patterns or strip developments are discouraged due to traffic congestion issues, poor aesthetics, and issues of need, sustainability and intended community character. Commercial development is encouraged as infill in presently zoned areas. "Build to" lines, parking in rear, service road and shared driveways are also encouraged in commercial development designs. These areas are in Commercial (C-1,-2, and -3) Zoning.

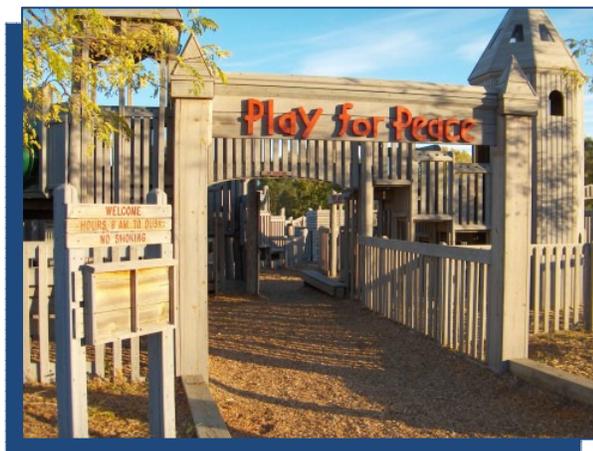
Commercial Recreation

This designation takes in specialty businesses such as tourist resorts, banquet facilities, catering, and public recreation located in the Pleasant Lake vicinity. These areas are in Residential 1 (R-1) and Commercial (C-1) Zoning.



Industrial

There is one area selected for industrial land use in Henrietta Township. It is designated as an Industrial Development District (IDD) and is located on M106, north of Kennedy Rd., adjacent to the Henrietta Township Transfer Station. It is not the intent of the Master Plan at this time to encourage the introduction of industrial land uses in the Township due to the lack of improved levels of public infrastructure and suitability with community character. To these ends, industrial uses would function more effectively in other urban districts. This area is designated Industrial-1 (I-1) Zoning.



Parks/Public Land

These areas consist of the Pleasant Lake County Park on Styles Rd., the Pleasant Lake Pathway route, the Baseline/Meridian State Park, the Lakeland Trail Linear State Park, the former Katz Elementary School grounds, and Township owned property on M106

and Kennedy Rd. Henrietta Township’s Recreation Plan details improvement planning for those facilities. These areas are in Residential-1 (R-1) and Agricultural (Ag-1) Zoning.

Natural Areas of Concern

Batteese Creek (aka Sunfish Creek), Plum Orchard Creek, Portage River and their tributaries have been designated as sensitive natural areas of concern. This is due to the topography and integrated pre-settlement habitats along the edge in many locations making these surroundings vulnerable to stream-bank erosion, and non-point source pollution. The Upper Grand River Watershed Council has recognized these natural areas in their regional plan. Sections of the Township's watershed are part of the Federal Emergency Management Agency's National Floodplain Insurance Program. These areas overlay all Township Zoning Districts.



Agriculture

The balance of the Township is designated as agricultural and agricultural preservation, including areas identified as agricultural preservation areas in the Jackson Community Comprehensive Plan. The agricultural designation contains land that is a combination of large tracts, productive soils, and low levels of residential and commercial development. These areas include active farm production in field crops, farm markets, forest and nursery products, and vineyards. These designations support measures that encourage land availability for continued agricultural commodities production, and farmland preservation. These areas are presented in AG-1 zoning.



Community Services

The purpose of this section is to present information on community services provided by various government agencies to the residents of Henrietta Township.

Township Office

The Henrietta Township administrative office is located in the former Katz Elementary School at 11120 Musbach Road, Munith, MI 49259. The Township Office provides property tax, assessing, and permits services; and serves as the location for elections, township board and commission meetings.

Public Safety

Henrietta Township has no police department. Police services are provided by the Jackson County Sheriff's Department and the Michigan State Police. The Township also has a Zoning Administrator who enforces Township Ordinances.

The Township maintains one emergency warning siren to warn residents of the approach of tornadoes or other emergencies. It is located at the Henrietta Township Fire Station by Pleasant Lake. Waterloo Township operates a warning siren in the Village of Munith. The Township supports the Jackson County Hazard Mitigation Plan and participates in Federal Emergency Mitigation Agency programs.

Fire and Rescue Services

Henrietta Township maintains a paid on-call fire department and first responder service under the direction of its full-time fire chief. The department has the following equipment at its disposal: Engine-1 primary engine, Engine-2 tanker/pumper, Truck-1 drafting/grass fire, Truck-2 grass fires, Rescue-1 first response, and Rescue-2 ice/water rescue. The department provides fire safety programs, inspections, and participates in community events. The fire station is located on M-106 (Bunkerhill Road).



Health and Ambulance Services

Health providers are located outside of the township area. Allegiance Health Systems in Jackson, Sparrow Hospital in Lansing, and Chelsea Community Hospital (St. Joseph Health Systems) provide emergency and diagnostic care services. Ambulance transport services are provided through Stockbridge Area Ambulance, Mason Area Ambulance Service, or Jackson Community Ambulance. Both provide advanced life support while transporting patients. Foote Hospital in Jackson and Chelsea Community Hospital provide emergency care services. Helicopter transport is available from the University of Michigan Medical Center in Ann Arbor.

Public Schools, Higher Education, and Library

There are three school districts in Henrietta Township. The Northwest Community Schools cover the majority of the Township while Stockbridge Community Schools serve the Munith area and the East Jackson Community Schools serve the Township's southeast corner. The Jackson County Intermediate School District provides services for career training and special needs children. Jackson Community College provides transfer programs, a two year Associates Degree and a four year Bachelor's Degree in nursing and culinary arts. Various degree and post graduate programs are also provided at regional private and public facilities including the University of Michigan. The Henrietta Branch of the Jackson District Library offers high speed computer access and hosts programs. The library is located on M-106 (Bunkerhill Rd.) in the Township.

Water, Sewer and Utilities

Henrietta Township residents rely upon groundwater resources from individual or private wells. The Township does not have a municipal water system. Most of Henrietta Township relies upon individual septic tank systems. The Township does not have a municipal sewer system. Consumers Energy Company provides utilities to the Township's homes and business. Natural gas provides heating fuel for 61.9% of the residents while fuel oil, kerosene and bottled or tank LP gas account for 24.6%. Alternative energy sources such as geo-thermal and wood are also in use.

Transportation

Henrietta Township is tied to the region by transportation connections which are easily accessible from all directions by way of several major state and county roads. The Township has approximately 65 miles of roads of which 60 miles are paved and 5 miles are gravel. M-106 (Bunkerhill Rd.) is maintained by the Michigan Department of Transportation (MDOT). The Jackson County Department of Transportation (JCDOT) prioritizes and is responsible for road improvements and maintenance on all other public roadways in the Township. The JCDOT Henrietta Garage is located on M-106 (Bunkerhill Rd.).

Arterial Roads

M-106 (Bunkerhill Rd.) is a minor arterial which runs northeast approximately 4 miles from the Township's boundary to Stockbridge and south approximately 5 miles from the Township's boundary to Jackson providing access to I-94. Arterial roads are intended for relatively high speed through traffic.

Collector Roads

Berry Road is a major collector which provides access to US-127 approximately 3 miles to the west of the Township boundary. Other major collectors are Meridian, Coon Hill, Wooster, and Bunkerhill roads. Minor collectors are Territorial, Styles, Bartlett, Resort, Hankerd, Coon Hill, Fitchburg and Base Line roads. Collector roads generally carry lower volumes of traffic at lower speeds than arterial roads.

Local Roads

Local roads take in the remainder of streets and roads. Their primary purpose is to provide a link from arterial and collectors to individual properties.

Other Modes of Transportation

Public bus transportation is provided by the Jackson Area Transportation Authority. JATA's Reserve-A-Ride program offers service to Township areas. Regional air travel is provided by Jackson County Airport—Reynolds Field, a general aviation and pilot training facility located in Blackman Township. Passenger rail and freight service is located in the City of Jackson along the Detroit-Chicago corridor.

Community Recreation

The Township recognizes the health, social values and community identity of insuring choices of recreational opportunities regarding means and modes of non-motorized transportation. Township patterns of lake residential distribution indicate continued opportunity to promote and strengthen neighborhoods through parks, recreational access and commercial areas within walking distance. Widely distributed residential area can be connected through the construction of recreational trails as recommended from the Henrietta Township Recreation Plan, Jackson County Non-Motorized Trail Plan, and the Michigan Department of Natural Resources Lakeland Trail Plan. These recommendations can be implemented as funding becomes available:



- The Township's Pleasant Lake Pathway provides a walking route around the lake area with off road access between Resort and Clyde James Rd., and access of Resort Rd. into the county park.
- Jackson County owns and maintains a park on Pleasant Lake. The park features a swimming area, shelter and picnic area, campgrounds, toilets, and playgrounds.
- The township is host to Hankerd Hills Golf Course located at Pleasant Lake. This top-rated 18-hole golf course also offers a year around restaurant and banquet facilities.
- The township is host to the Hankerd Inn, a historic 1885 Bed & Breakfast accommodation located at Pleasant Lake.
- The former Katz Elementary School (Stockbridge Community Schools), located in Munith, features a playground and exercise area, is host to a senior center, fitness programs, and community events.
- The Michigan Department of Natural Resources (MDNR) owns two parkland areas within the township. The Baseline-Meridian State Park and the Lakeland Trail Linear Park. The Township borders portions of the Waterloo State Park Area's Portage Lake Unit.

Transfer Station and Recycling Center

Located on M-106 just north of Kennedy Road, the Township offers waste management services to area residents on Saturdays. In the mid-1980's, the township, with Superfund cleanup monies, closed its municipal dump site and converted it to a drive-through transfer station and recycling center. In the mid-1990's a compactor was installed and recycling education programs promoted. The facility became a model for Jackson County and continues to promote recycling and proper solid waste disposal for the residents of Henrietta Township and surrounding communities.

Merits of Citizen Surveys

A growing number of communities are augmenting traditional meetings and forums with citizen surveys. Surveys are far more successful in capturing the typical community resident and making that resident's opinion part of the community calculus. A citizen survey will provide the perspective of residents who cannot attend meetings or focused discussions. Care should be taken in interpretation not to assume that the survey results are representative of all Township residents and property owners, but representative of those residents that actually responded to the survey.

In July, 2012, Henrietta Township conducted a survey of township residents to solicit their opinion on a variety of issues. The survey and the results are presented on the following page.



Henrietta Township Recreation Survey 2012 --- 130 Surveys receive to date 11/27/2012

1. I feel that public recreation areas in my township are adequate. **Yes 56% No 44%**

2. I feel that the Township needs: **More neighborhood parks 30% No additional parks 70%**

3. Would you support a 1/8 millage (\$6.25 per year on an assessed value \$50,000 home) for trail and park development and improvements? **Yes 49% No 42% Not sure 9%**

4. In planning for the next 10 years, should the Township work with the Michigan Department of Natural Resources to develop a walking/bike/horse trail on the abandoned Rail Corridor that extends through the Township? **Yes 70% No 30%**

5. If developed, what recreational opportunities would you use. (Please circle all that applies)
walk/bike paths-1, horse trails-3, fitness track-2, soccer field, baseball field-4,
other _____

6. In planning for the next 10 years, should Henrietta Township develop walking/bike trails within the existing road easements around Pleasant Lake? **Yes 53% No 47%**

7. Are there any specific locations you would like to see developed as recreation areas in our township?

County Park/Pleasant Lake , Lakeland Trail,

8. Are there any specific activities (for example: baseball, soccer, exercise track) you would like to see developed in recreation areas?

trails, exercise track, baseball field, tennis courts

9. What leisure/recreational activity do you participate in most often?

walk, bike, boating

10. Beside from recreation, on what efforts should the Township place the most emphasis?

public safety, road maintenance, lower taxes

11. The Henrietta Township Transfer Station is open every Saturday 9am to 3pm, located at M106 offers free recycling, and garbage drop-off for a small fee, and free brush drop-off on Kennedy Rd located near the corner of M106.
Do you use this service?

Yes 60% No 40%

12. The Playscape at the Pleasant Lake County Park needs some TLC.

Would you participate in a workday? **Yes 28% No 72%**

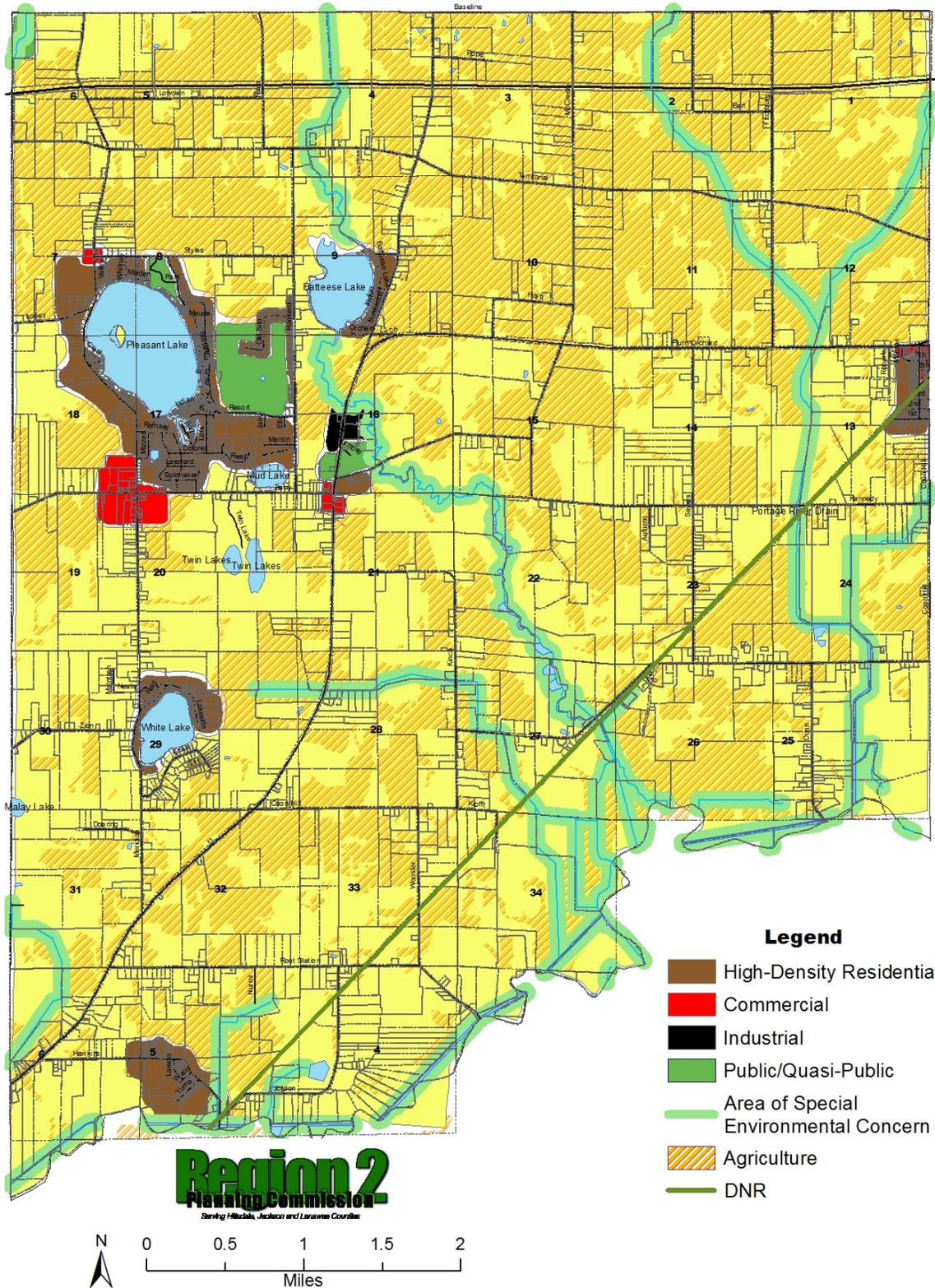
Part 3

Maps

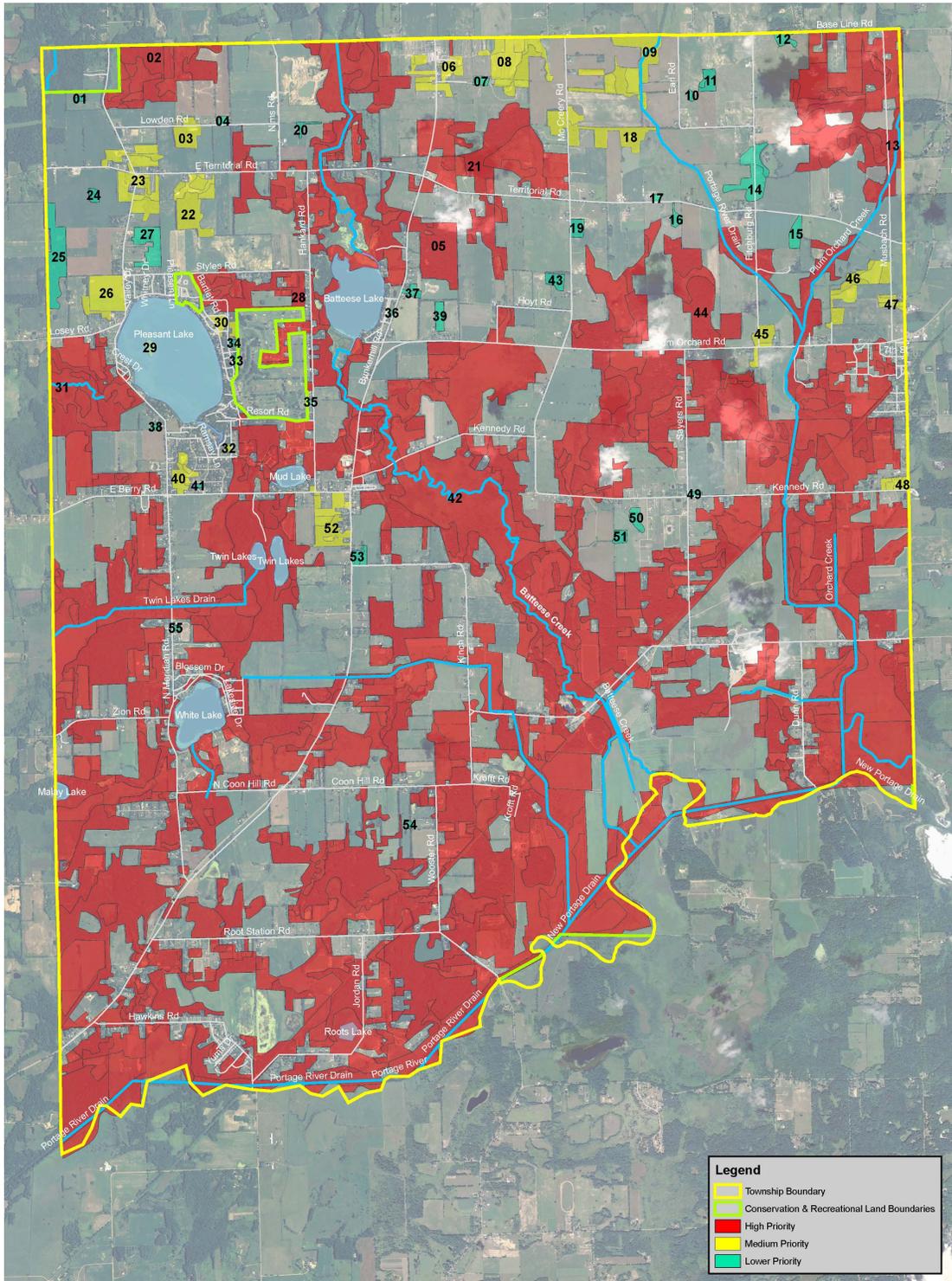
Henrietta Township Master Plan | 2014-2018

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Future Land Use

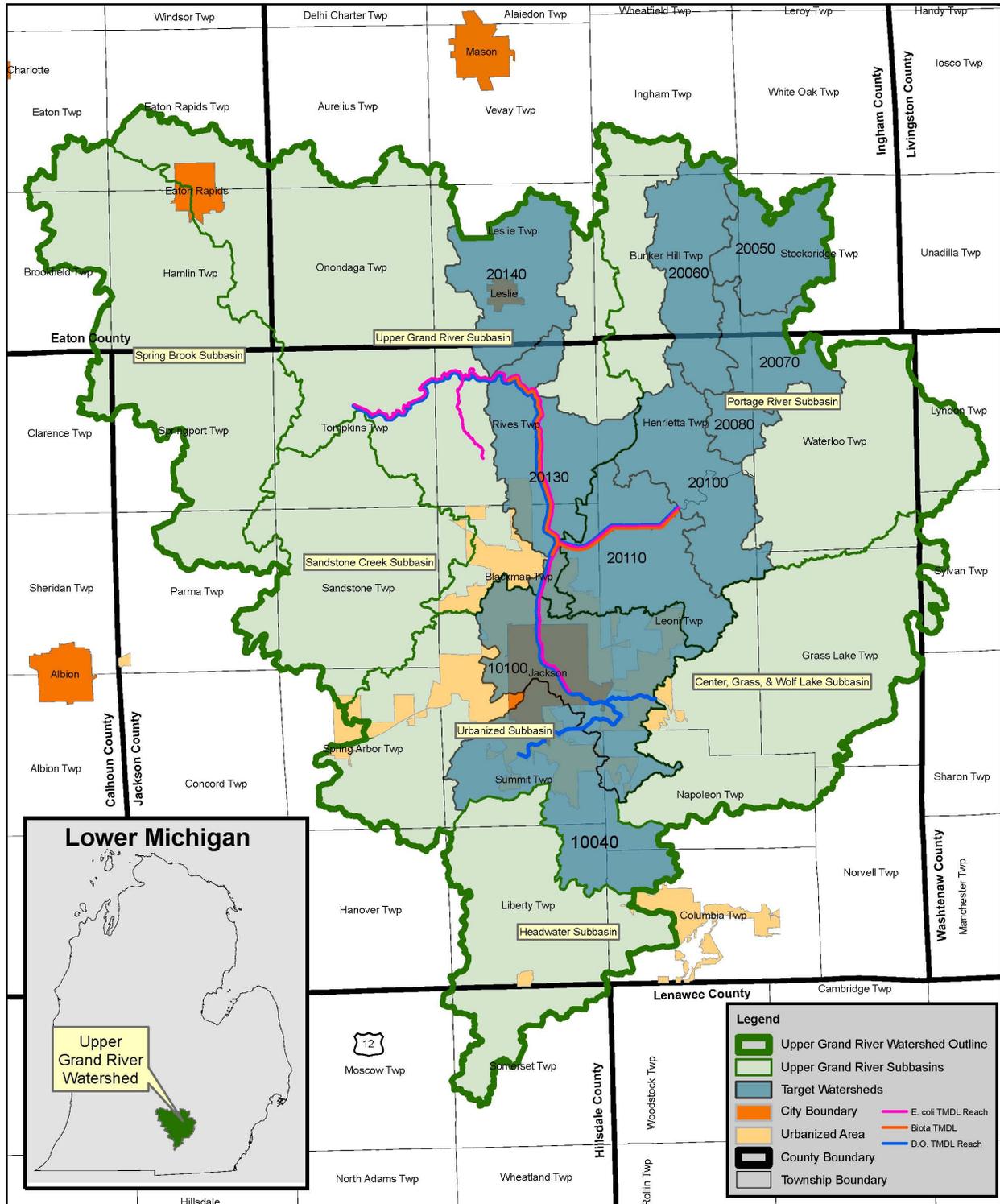


Natural Resource Preservation Implementation Project

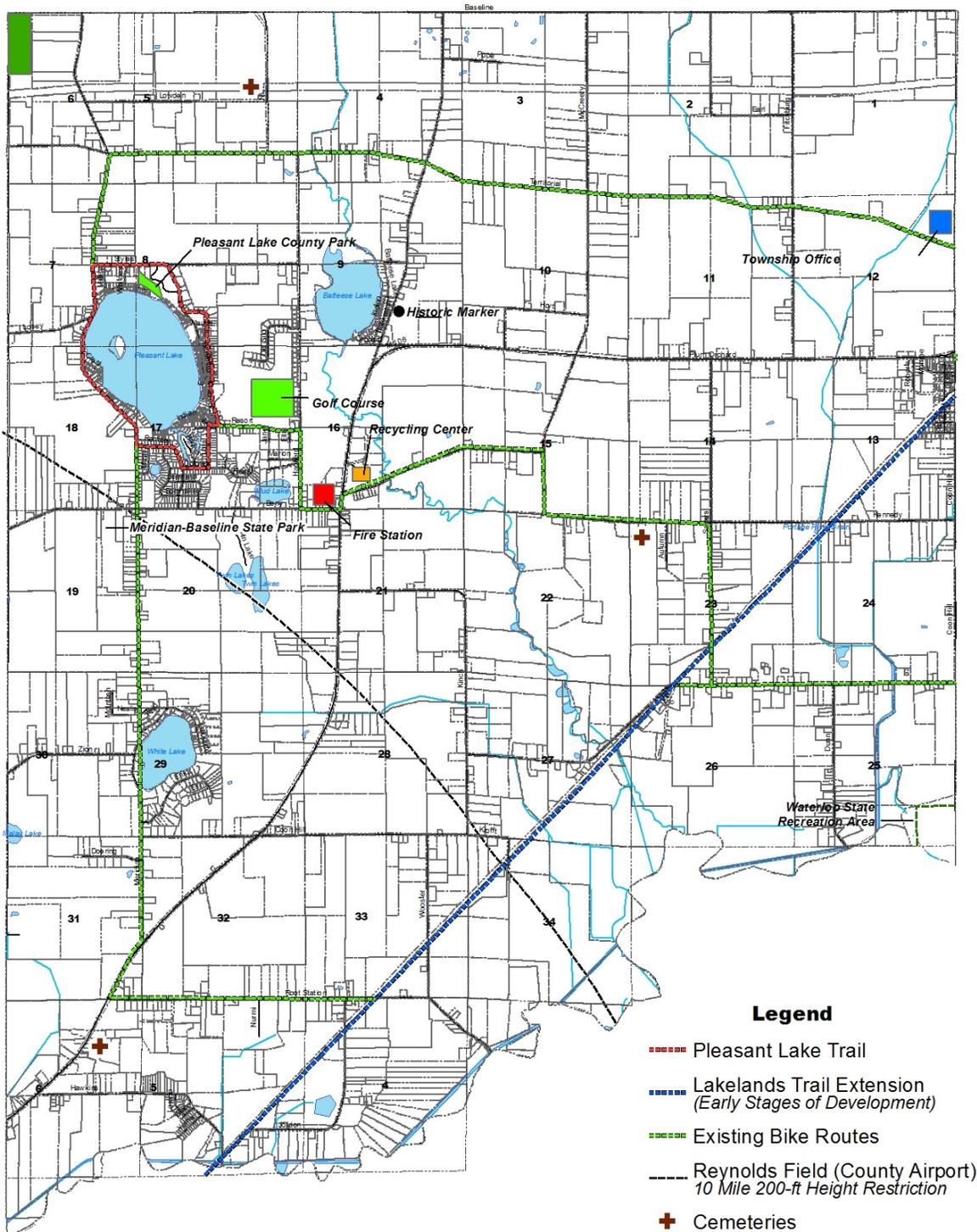


Note: Numbers on map correspond to site locations in ASTI Environmental report. More information is available in the Natural Resources Inventory.

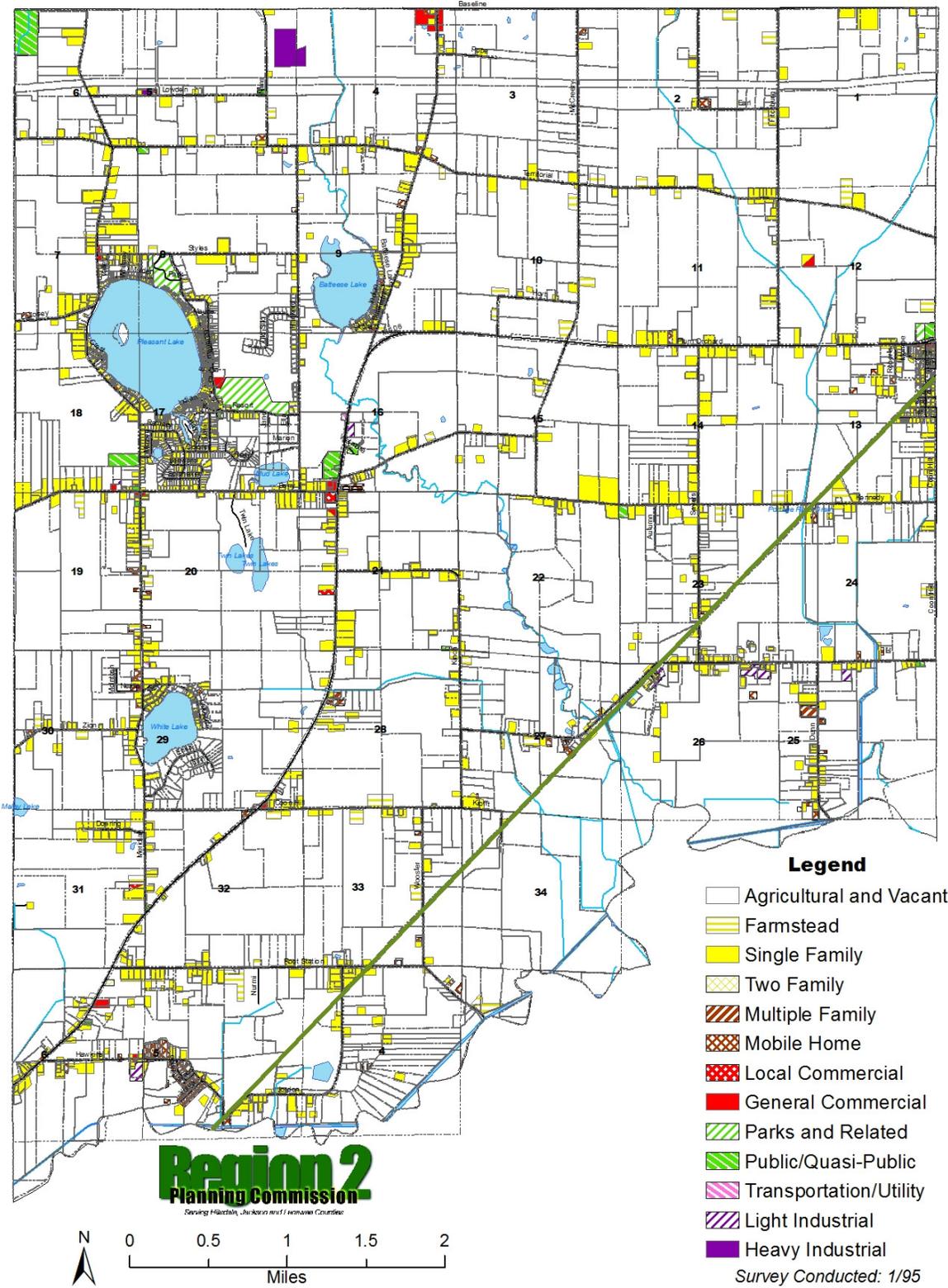
Upper Grand River Watershed Implementation Project Focus Area



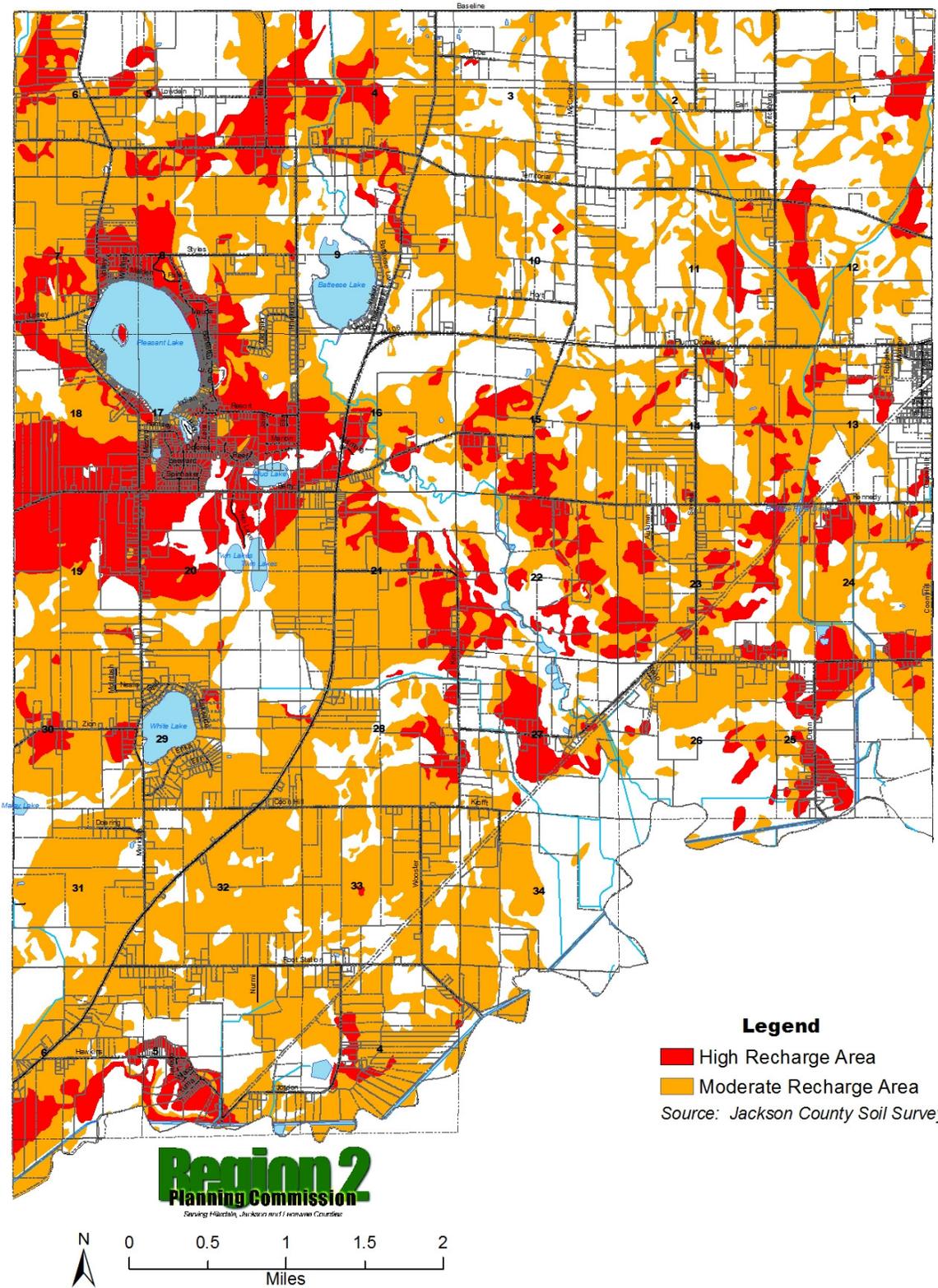
Community Services



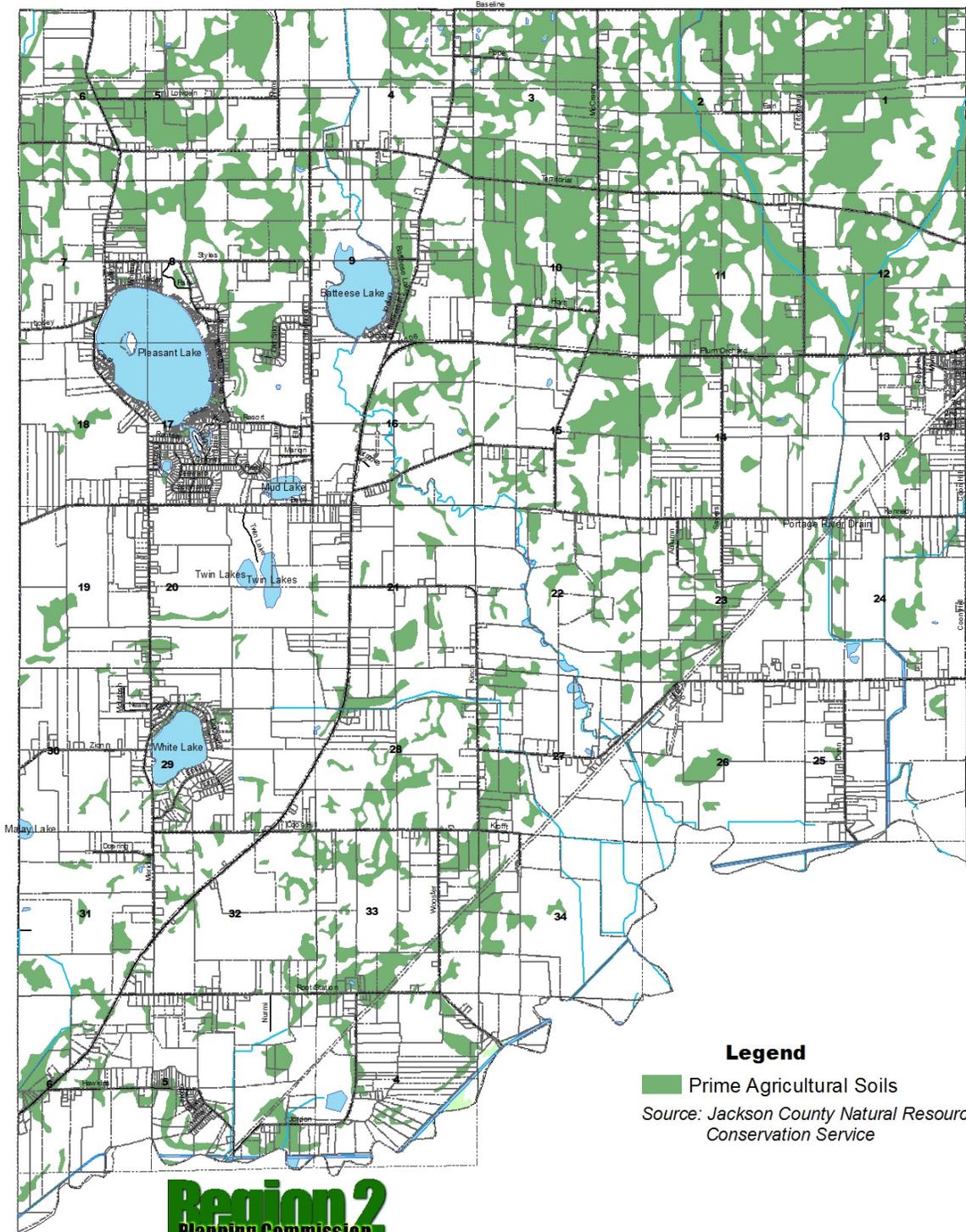
Existing Land Use



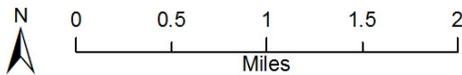
Groundwater Recharge Areas



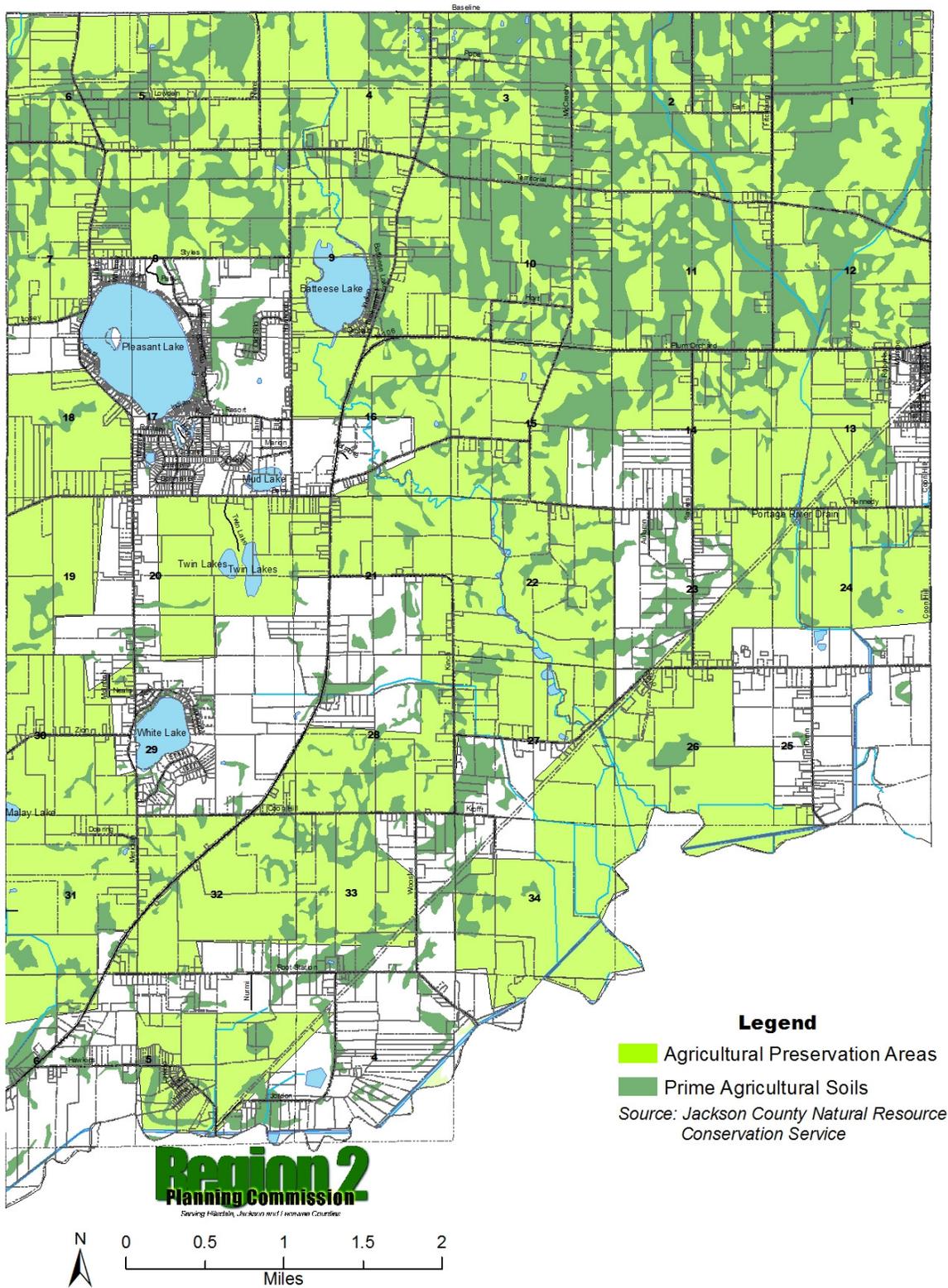
Prime Agricultural Soils



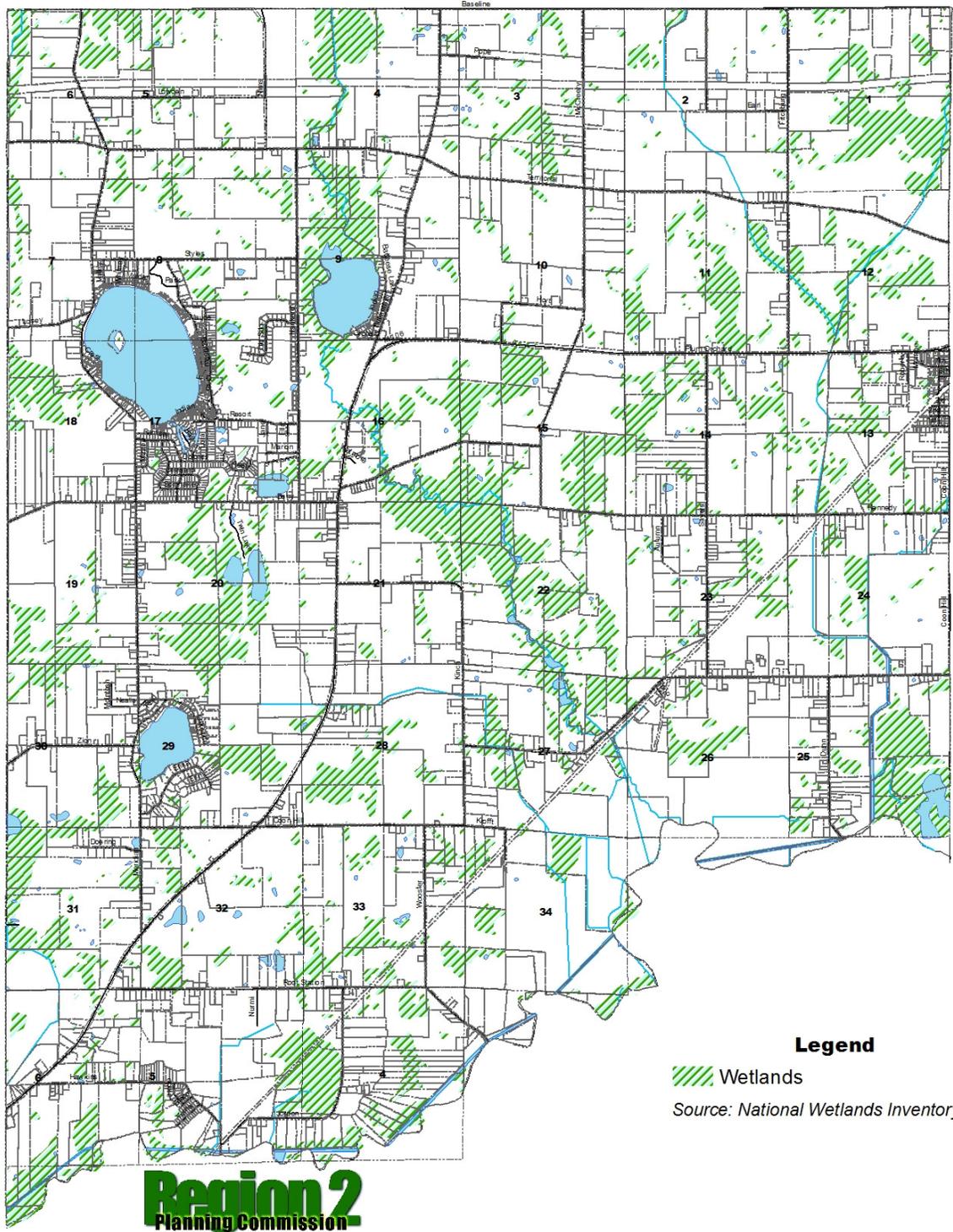
Region 2
Planning Commission
Serving Hamilton, Jackson and Lawrence Counties



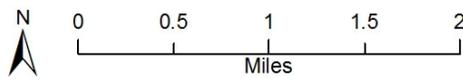
Farmland Preservation Area



Wetlands



Legend
Wetlands
Source: National Wetlands Inventory



Forested Areas

