



2020 MASTER PLAN

Hamburg Township
Livingston County, Michigan

August 18, 2020

**RESOLUTION TO ADOPT
THE
2020 HAMBURG TOWSHIP MASTER PLAN/ UPDATE TO THE 2011 VILLAGE
CENTER MASTER PLAN**

PRESENT: Hohl, Dolan, Negri, Menzies, Hahn, Neilson, Koeble, Hughes

ABSENT: None

MOVED FOR ADOPTION: Negri

SUPPORTED BY: Hahn

WHEREAS, the Michigan Planning Enabling Act (MPEA) Public Act 33 of 2008, MCL 125.3801 et seq., 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 Draft 2020 Hamburg Township Master Plan and Updates to the 2011 Village Center Master Plan and submitted the plans to the Township Board for review and comment, and

WHEREAS, on March 3, 2020, the Township Board received and reviewed the Draft 2020 Hamburg Township Master Plan and Update to the 2011 Village Center Master Plan prepared by the Planning Commission and authorized distribution of the Master Plan to the interested agencies as identified in the MPEA, and

WHEREAS, notice was provided to the interested agencies and the timeframe to respond was provided as required in the MPEA, and

WHEREAS, the Planning Commission held a public hearing pursuant to the MPEA on July 15, 2020 to consider the comments from the interested agencies and from the public on the proposed 2020 Hamburg Township Master Plan and Updates to the 2011 Village Center Master Plan to further review and comment on the proposed plans, and

WHEREAS, the Planning Commission found that with the proposed changes suggested by staff, the Future Land Use Map and the Zoning Map that the 2020 Hamburg Township Master Plan and the Updates to the 2011 Village Center Master Plan are desirable and proper and further the use, preservation, and development goals and strategies of the Township, and

WHEREAS, the MPEA authorizes, and the Hamburg Township Board has the right by resolution, to approve or reject the proposed Master Plan. The Planning Commission Resolution to Adopt the 2020 Hamburg Township Master Plan along with the Final Draft of the 2020

Hamburg Township Master Plan and the Updates to the 2011 Village Center Master Plan have been forwarded to the Hamburg Township Board for final approval.

WHEREAS, the Township Board held a public meeting on August 18, 2020 to review and discuss the Final 2020 Hamburg Township Master Plan and Update to the 2011 Village Center Master Plan.

WHEREAS, at the August 18, 2020 meeting, the Township Board finds that the 2020 Hamburg Township Master Plan and Updates to the 2011 Village Center Master Plan are desirable, proper and furthers the use, preservation, and development goals and strategies of the Township, and

NOW THEREFORE BE IT RESOLVED AS FOLLOWS:

- 1. Approval of the 2020 Hamburg Township Master Plan and Updates to the 2011 Village Center Master Plan.** The Township Board hereby approves the adoption of the 2020 Hamburg Township Master Plan and the Update to the 2011 Village Center Master Plan, including all of the chapters, figures, maps and tables contained therein. Pursuant to MPEA, Section 43, as set forth in MCL 125.3843.
- 2. Findings of Fact.** The Township Board has made the foregoing determination based on a review of the existing demographic trends, the existing land uses in the Township, the public input, existing Master Plan provisions and maps, and with the assistance of planning staff and finds that the 2020 Hamburg Township Master Plan and Update to the 2011 Village Center Master Plan will accurately reflect and implement the Township's goals and strategies for the use, preservation, and development of lands in Hamburg Township.
- 3. Next Step.** Upon final adoption of the 2020 Hamburg Township Master Plan and Update to the 2011 Village Center Master Plan, the secretary of the planning commission shall submit copies of the adopted master plans to the entities as required in MPEA Section 43, as set forth in MCL 125.3843.
- 3. Effective date.** The 2020 Hamburg Township Master Plan and the Update to the 2011 Village Center Master Plan become effective on August 18, 2020.

A roll call vote on the foregoing resolution was taken and was as follows:

AYES: Hohl, Dolan, Negri, Menzies, Hahn, Neilson, Koeble, Hughes

NAYS: None

ABSENT: None

Resolution Declared Adopted.

CERTIFICATION

I, Michael Dolan, being the duly elected Clerk of the Township of Hamburg, Livingston County, Michigan hereby certify that (1) the foregoing is a true and complete copy of the Resolution duly adopted by the Township Board on August 18, 2020; (2) the original of such resolution is on file in the records of the Clerk's office; (3) the meeting was conducted, and public notice thereof was given, pursuant to and in full compliance with the Open Meetings Act (Act No. 267, Public Acts of Michigan, 1976, as amended); and (4) minutes of such meeting were kept and have been (or will be) made available as required by the Open Meetings Act.



A stylized, handwritten signature in blue ink, appearing to read "Michael Dolan".

Michael Dolan, Hamburg Township Clerk



MASTER PLAN

HAMBURG TOWNSHIP Livingston County, Michigan

Adopted by the Hamburg Township
Board of Trustees on August 18, 2020

Prepared by:



10405 Merrill Road ♦ P.O. Box 157
Hamburg, MI 48139
Phone: (810)-231-1000
Fax: (810)-231-4295
www.hamburg.mi.us

ACKNOWLEDGMENTS

The participation and cooperation of the community leaders and residents in the preparation of the Hamburg Township Master Plan is greatly appreciated. In particular, we acknowledge the efforts of the following individuals:

Township Board

Pat Hohl, Supervisor
Mike Dolan, Clerk
Jason Negri, Treasurer
Bill Hahn, Trustee
Charles Menzies, Trustee
Annette Koeble, Trustee
Patricia Hughes, Trustee

Township Planning Commission

Jeff Muck, Chairperson
Victor Leabu, Jr.
Annette Koeble
Joyce Priebe
John Hamlin
Ron Muir
Paul Bohn

Township Administration

Scott Pacheco, Township Planner
Amy Steffens, Zoning Administrator
Brittany Stein, Zoning Coordinator

Steering Committee

Jim Neilson
Annette Koeble
Victor Leabu, Jr.
Joyce Priebe
Kathleen Kline-Hudson
Michelle Brunner
Lauren Tharp
Steve Pugsley

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INTRODUCTION

Importance of a Master Plan

A Master Plan is a document that is prepared in cooperation with the public to identify communities short and long range planning goals and objectives. Municipalities produce master plans to develop an overall vision for the next 20 years and to conduct a comprehensive review of their facilities and services. A successful master plan also helps the public understanding of the planning process and describes how the goals for the community were created and how they can be implemented.

In the state of Michigan municipalities are required to prepare a master plan in accordance to [Section 31 of the Michigan Planning Enabling Act \(MPEA\)](#) (PA 33 of 2008, MCL 125.3831). The MPEA requires that the Master Plan “*make careful and comprehensive surveys and studies of present conditions and future growth within the planning jurisdiction with due regard to its relation to neighboring jurisdictions*” and that “*A master plan shall address land use and infrastructure issues and may project 20 years or more into the future. A master plan shall include maps, plats, charts, and descriptive, explanatory, and other related matter and shall show the planning commission’s recommendations for the physical development of the planning jurisdiction*”.

MPEA requires that the Master Plan include; a land use plan; recommendations on infrastructure; recommendations for redevelopment or rehabilitation of blighted areas; a zoning plan and implementation measures. MPEA also provides suggestions for other additional information that a municipality may want to consider including into their Master Plan. These suggestions include transportation, safety, good civic design, public utilities, recreation, and use of resources.

Hamburg Township last adopted a Master Plan in 2011. With increased development pressure coming from both within the Township and neighboring municipalities, the Master Plan needed to be revisited and revised to insure the plan can keep pace with the Community needs.

Principals of a Master Plan

Before using the Master Plan to guide future development, it is important to understand some of the basic principles upon which it is based:

The plan should be flexible: The document is not meant to be cast in stone, it should be fluid and able to change with the conditions of the community. The plan is a general guide to be used by the government to provide direction for the future of Hamburg Township. It is required by MPEA that the document be reviewed a minimum of every 5 years to make sure the plan adequately addresses the community’s needs and changing conditions.

The plan should allow for orderly development: The land use allocations reflected in the plan are based on the best available demographic projections for Hamburg Township. The plan must realistically provide sufficient land area to meet the anticipated needs and demands of our residents, including residential and commercial uses, while at the same time protecting the overall quality of life and physical environment.

The plan should encourage public participation: The plan should be written in a way that aids public understanding of, and invites public participation into, the planning processes and goal implementation.

The plan should balance property rights: Property rights are personal and valuable, reasonable use of your property is protected by law. The Master Plan guides the impacts of land use throughout the community.

The plan is more than a zoning map: The Master Plan reflects the planned use of land, taking into consideration existing development, but does not depict a "new" zoning district map. Because the Master Plan and zoning map are intended to be in reasonable harmony, it is likely that future zoning districts will take the shape of the plan as rezoning requests are received and reviewed by the community.

Zoning is not a substitute for a master plan: The plan is a long-range guide for community development, while zoning approvals are specific to a piece of property. Zoning approvals are mostly permanent, unless the use itself is temporary in nature.

Deviation from the plan puts zoning decisions at risk of invalidation: Community development should be supported by the Master Plan. Zoning decisions that are not based upon the plan risk invalidation if faced with a legal challenge. Decisions made based on the document may be afforded additional validity, since the decision was not made in an arbitrary fashion, but follows a rational plan for Hamburg Township.

The plan should be kept current: The Township should conduct Annual review of the plan. Township officials and employees can assist by bringing issues not addressed in the document to the attention of the Planning Commission or Township Board. Amendments to the plan can be done at that time to keep it up to date and consistent with community philosophies. As the Master Plan is a guiding document, if situations and circumstances change during the life of the document, uses can be approved to comply with these changes. The Master Plan should then be amended at the next update to reflect these new situations and approved uses. MPEA requires that a comprehensive update occur at least every 5 years.

Who uses the Master Plan

The master plan is a policy and action driven document. The Township staff, residents, the development community, and community partners are all responsible for the master plan's implementation.

The Township: The Master Plan will shape actions ranging from staff discussions with potential developers to the Township Board's review of priority-based budgeting (PBB). The vision detailed in this document will provide the foundation for updating regulations and policies, including the Zoning Ordinance and the Complete Streets Policy, and set priorities for infrastructure and improvement projects for streets and parks. Hamburg Township boards and commissions are critical to Master Plan implementation, particularly the Planning Commission who will use this document to review development requests.

The Development Community: The Master Plan is a must-read for anyone interested in developing in Hamburg Township. The Future Land Use section of this plan details the type and scale of development envisioned by the community. The Township will review all proposed projects through the lens of the Master Plan.

The Residents: Residents are critical stakeholders in this document. Whether serving on a board or commission or participating in neighborhood planning and discussions, residents are guardians of this document. There were

several opportunities during the preparation of the Master Plan for community members to define the direction of the Township and identify the challenges and opportunities to achieving this vision. Many community members provided the Township with input through the Master Plan review process.

Neighborhood Leaders: The health and vitality of our neighborhoods are critical to the Township's overall health. With this in mind, the Master Plan focuses on raising the quality of life for all residents. The Future Land Use section of this document and the [Village Center Master Plan](#) provides a road map for future neighborhood planning efforts.

Partners: The Township cannot achieve the goals of this document on its own. To move forward, the Township will partner with local and state organizations, the local business community, Township residents, local developers and many others who will play a role in the implementation of this Master Plan.

Using the Master Plan

While the Master Plan serves many purposes, it is important to remember that the Master Plan is a general guide for the Township's goals, objectives, policies and implementation measures and provides a single, comprehensive view of the community's desires for the future of the Township.

The Master Plan will be implemented by:

- Aiding in daily decision-making. The goals and policies outlined will help guide the Township Board and Planning Commission in their decisions on zoning, development proposals, capital improvements and other matters related to land use and development.
- Helping in decision-making on how and where to invest in public infrastructure and improve municipal services. So the public investment results in the maximum benefits to the community as a whole.
- Informing Township officials about the changing demographics within the Township and how these shifts in the Township's population might impact housing, municipal services, transportation needs, and other aspects of the community.
- Routinely bringing all stakeholders together to discuss the future of the Township.
- Making the Township eligible for future funding opportunities, such as state and federal funding sources.
- Helping to protect and enhance the things in Hamburg Township that make it a great place to live, work and play for both of today's residents, visitors and for those of future generations.

Zoning decisions: Because the Master Plan envisions the future use of land, rezoning decisions should be consistent with its recommendations. This is not to say that all rezonings that are consistent with the [Future Land Use Map](#) should be approved or that all rezonings that differ from the [Future Land Use Map](#) should be rejected. Each request needs to be evaluated separately. When considering these items, consideration should be given to changing conditions. Again, the annual review of the Master Plan will be key in identifying such conditions.

Transportation improvements: There is a strong nexus between transportation and land use. As development proceeds, the need for new or improved roadways, alternative forms of transportation, and new trail systems

becomes obvious. By measuring the intensity of future development shown in the Master Plan, transportation planners can estimate needed rights-of-way widths, number of lanes, and the level of necessary access management to allow all types of transportation options. Additionally, the Master Plan may consider other transportation needs necessary to reduce traffic or to help the mobility of the users on the roadways or trail systems.

Environmental impact: As a reflection of the intensity of land use, the Master Plan should reflect Hamburg Township desire to protect its environment and natural features. The plan should establish that value to the community and propose steps to implement the appropriate regulations.

Utility extensions/capital improvements: The Master Plan designation of land use intensity is useful when evaluating the need for improved utilities, new roadways, public buildings, and other improvements. This information may be included in a Capital Improvement Program (CIP). The CIP is a six-year plan, updated annually, for capital expenditures necessary for plan implementation. Development of the CIP is the responsibility of the Township Board, with considerable input from municipal staff and/or consultants (e.g., engineers, planners, administrators, etc.).

Recreation planning: As the Township continues to grow and develop there will be additional need for recreation/open space land. The Master Plan can assist in the setting of priorities for park development. For example, parks and recreation plans pay special attention to the goals and objectives of the Master Plan. If additional recreational services are called for in the Master Plan, these services may be noted in the Parks and Recreation plans. A review of future land use is also important. If a Master Plan indicates that substantial new residential development will be forthcoming in a particular area, some thought should be given for the need to provide and develop additional park land. However, the [Future Land Use Map](#) cannot indicate specific properties as park land unless the land is in public ownership, or steps are already well underway to acquire the property.

Development of the Master Plan

In March of 2018 the Township Board directed staff to create and send a Notice of Intent to prepare the 2020 Master Plan. This notice was sent to the interested agencies as required in [Section 39 of the Michigan Planning Enabling Act](#) (MPEA) (MCL 125.3839).

The Township formed a Steering Committee to guide the creation of the plan. The Steering Committee was made up of three citizens of the Township, one of which was a local business owner; two members of the Township Board, one member each of the Planning Commission and Zoning Board of Appeals, and a representative of the Livingston County Planning Department.

The Steering Committee and Township staff created a website dedicated to the Master Plan update, created and distributed a public survey, staffed an informational booth at the Hamburg Family Fun Fest, visited many commercial businesses in the Township to solicit input from the business community, and held multiple meetings, including a kickoff meeting and an ice cream social open house as a part of the public outreach efforts for the development of this Master Plan.



Between October of 2018 and December of 2019 multiple meetings were held between the Steering Committee members and Township staff to review and discuss the results of the public outreach efforts, the steps required in the master planning process and the working draft of the Hamburg Township 2020 Master Plan.

Review of the public outreach suggested that the opinions of the community have not significantly changed since the last Master Plan update in 2011 or the Master Plan review in 2016. The community believed the quality of life within the Township was above average and that they wanted to preserve the things they most enjoy about the community, such as; the waterbodies, natural areas, and outdoor recreation options. Therefore, in the preparation of this update much of the plan will remained unchanged from the 2011 Master Plan. The 2020 Master Plan focuses on updating the data used in the Master Plan and reformatting the Master Plan to make it more user friendly. Also as required by MPEA discussion regarding the Township's [Zoning Map](#) and complete streets were added to the 2020 Master Plan.

In February of 2020 the Planning Commission discussed and reviewed the draft Master Plan at their regular monthly meeting. The Planning Commission made a recommendation to the Township Board to approve the distribution of the draft Master Plan for comment.

On March 3, 2020, the Township Board reviewed the draft Master Plan and the recommendation from the Planning Commission and approved the distribution of the draft Master Plan for comment.

After the 63-day comment period all comments were reviewed and because there were no significant changes required the Planning Commission held a public hearing on July 15, 2020 and made a recommendation to the Township Board to approved the Hamburg Township 2020 Master Plan.

On August 18, 2020 the Township Board once again reviewed the draft Master Plan and the recommendation from the Planning Commission and approved the Hamburg Township 2020 Master Plan.

Design of the Master Plan

The Master Plan is separated into four chapters. Each chapter includes a summary of the existing conditions and key determining factors that influences the vision and policies of those areas. The factors could include public input, demographic data, and generally accepted planning practices. Although the goals and objectives

are consolidated at the end of chapter 1, specific goal and objectives addressing the chapter topics are also located at the end of in each chapter.

Executive Summary (Chapter 1): This chapter is one of the most important in the plan as it summarizes the data used in the creation of the plan, including all public input, as well as the goals and objectives the Township hopes to achieve in the next 10 to 20 years.

Land Use (Chapter 2): Discusses and identifies the existing land uses and explores future development and land use opportunities.

Transportation (Chapter 3): Discusses and identifies the existing transportation conditions in the Township and how the Township can accommodate the future transportation needs of the citizens.

Natural Features (Chapter 4): Discusses and identifies the existing natural feature and environmental conditions in the Township and how the Township can preserve and protect these features into the future.

Integration with other plans

In addition to the Township Master Plan, there are subarea plans that address specific areas and interests of the Township in more detail. Subarea plans are created to focus on a certain section of a community where more specific goals have been identified. This component of the Township Master Plan has served as a catalyst for detailed standards outlined in the Township's Zoning Ordinance.

Hamburg Village Center Master Plan: The Hamburg Village Center Master Plan is designed to preserve the existing village character and require that future development be designed to maintain a traditional village character by following specific design principals (commonly referred to as traditional neighborhood design). This plan details the land use, transportation and urban design framework for continued development of the village. Streetscape elements such as street trees, ornamental streetlights, sidewalks and road curbs are proposed throughout the village area. The plan also designates areas for neighborhood open space and village greens.

Hamburg Township 2018 Parks and Recreation Master Plan: The Parks and Recreation Master Plan serves as a roadmap for future recreation facilities and programs by considering existing parks and programs in and around the Township and the anticipated demand for additional or improved recreation facilities. This plan also forms the basis for potential recreation grant funding from the Michigan Department of Natural Resources (MDNR) and other agencies and foundations.

Hamburg Township Water and Sewer Master Plan: The Hamburg Township Water and Sewer Master Plan was developed to determine the future water and sewer needs of the Township, evaluate the ability of the existing systems to provide for this need, evaluate alternatives for future water and sewer needs, estimate preliminary costs of each of these alternatives and provide recommendations. The sections of this plan regarding water services were updated in the [Hamburg Township Water Master Plan](#).

Livingston County Master Plan: The Livingston County Master Plan was developed to connect the twenty municipalities within the County, so that the positive impacts of good planning and zoning practices could be replicated throughout a majority of these municipalities. The plan identifies critical issues and provides best practices for communities to use in addressing these issues.

Livingston County Greenways Plan: The Hamburg Greenways Plan includes local standards for providing useful pathway and greenway connections between the Township's commercial, residential, and recreational areas, as well as between the natural habitats within the Township. Each project that is developed within the Township is evaluated for the potential of connecting existing, future, and planned greenways.

Livingston County Transit Master Plan: The Livingston County Transit Master Plan determined what transit system enhancements can be made to improve the quality of life in Livingston County. With this information, the Plan presents a set of actions that can be taken in the short, mid, and long term to improve the existing transit system and offer new mobility options for residents and visitors, as well as funding and governance options to achieve their implementation.

CHAPTER 1-EXECUTIVE SUMMARY

The following executive summary discusses and summarizes the history of the Township; the past, current and future demographics and housing trends for the Township; and the public input that was gathered through the public outreach process. Lastly, the executive summary consolidates all the goals and objectives that are identified through the Master Plan process.

History of the area

Less than 200 years ago Hamburg Township was a great source of food for the Potawatomi Indians. They hunted, fished and gathered wild berries and fruits from the areas fertile land and its abundance of lakes, rivers and streams.

The first white settler to the Hamburg area was Jesse Hall who purchased Section 25 from the United States government in 1831 and built a cabin in the northeast quarter section. This was the beginning of the settlement of Hamburg Village. In 1835, E.F. Gay, a merchant from Ann Arbor, bought 30 acres and built a dam and sawmill. That same year, property owners established the organization of the Township within Livingston County and elected the first Township officials. Two years later in 1837 Gay sold his land to three Germans known as the Messrs. Grisson, who added a gristmill, store, and hotel. A plat was recorded in 1837, but no consensus could be reached on the township name (although the names of Steuben and Lenox were originally considered), the Messrs. Grisson were giving the privilege of naming the Township and they chose Hamburg after their hometown in Germany.



Due to the availability of inexpensive farmland, Hamburg thrived as an agricultural community throughout the nineteenth century. However, except for a brief resurgence during the Depression, agricultural activities declined in the twentieth century.

In the latter part of the nineteenth and early part of the twentieth century, Livingston County began to be recognized as a recreational haven for Detroit and Ann Arbor residents, thereby establishing a trend that remains today. Prior to 1900, the sole occupants of Zukey Lake were the Ann Arbor Sporting Club and the Oak Grove Club, both private hunting and fishing clubs. The improvement of county and state roads, and the completion of the Ann Arbor Railroad through Hamburg Township, opened the lakes to more summer visitors by the early twentieth century.

The Ann Arbor Railroad track was laid in 1886 establishing Hamburg as the village with two railroads. By the 1920's six Ann Arbor Railroad passenger trains and four Grand Trunk trains stopped daily in Hamburg. The railroads brought jobs, people and goods to the community. Lakeland, located in the heart of the lakes region, emerged as a port of entry to the lakes upon completion of its railroad station.

Development of Hamburg Township as a recreational community slowed during the great depression and then again during World War II. The transformation of Hamburg Township from a seasonal recreational to a permanent residential environment occurred largely after World War II with the conversion of cottages to year round residences.

The once dominant rural character of the Township has been slowly changing since the early 1950's, when suburbanites from the Detroit and Ann Arbor area began looking at Livingston County as a convenient commute between the rural or lake front lifestyle and metro area employment. Population in the Township nearly doubled every 10 years between 1950 and 1980 until the United States fell into a recession. The recession temporarily slowed migration into Livingston County. This slow growth was short lived, however, with the population once again increasing at a fast pace between 1990 and 2000. The Township saw largest inflow of population, 7,544 people, for a 10-year period between 1990 and 2000. The growth once again slowed due to the economic condition of the country and the region due to the mortgage crises and recession of 2007. The growth rate decreased to 2.7 percent between 2000 and 2010 and the Township continues to grow at a similar pace in 2020.

Demographics and Housing

The population data used in the Master Plan comes from multiple sources; the United States Census Bureau, [2000 and 2010 Census Data](#), [American Community Survey Data 5-year Estimates](#), [SEMCOG 2018 Population and Household Estimates for Southeast Michigan](#), [Hamburg Township Community Profile](#) and [2045 Regional Development Forecast](#), and [Livingston County Community Demographics and Economic Data Profile](#). See the links to the websites and [Appendix B](#) for detailed population information. The Hamburg Township demographic and housing data is summarized below:

General Population: The population in Hamburg Township, as well as many of the surrounding Townships, has increased since 1950. The growth rate from 1960-2000 for Hamburg Township was consistently greater than the total growth rate for Livingston County or the State of Michigan. Population in the Township increased almost four times between 1970 and 2000. Since 2000 the population growth of Hamburg Township has slowed from over 57 percent population growth between 1990 and 2000 to 2.7 percent population growth between 2000 and 2010. The population of Hamburg Township was 21,163 residents in 2010. The population growth of the township is estimably to remain low between 2010 and 2020. The population of the Township will be collected as a part of the 2020 census.

Age & Gender: The median age of Hamburg Township residents was 42.6 years in 2010. However, by 2016 the median age of Hamburg Township residents was projected to increase to age 45. People between the ages of 45 and 54 were the largest age group, comprising 19.8 percent of residents in 2010. Between 2000 and 2010 the age of the population within the Township has begun to shift with the total number of people between ages

45 and 85 growing by 3,305 people, and the total number of people from ages 0 to 45 decreased by 2,767 people. The population of people 0 to 19 years of age decreased by 11.2% between 2000 and 2010 and the population of people older than 65 years old increased by 79.3% between 2000 and 2010. This shift in the demographic makeup of the community is important to note when creating the policies and objectives in this Master Plan. This information helps to determine the needs of the existing population and providing policies to make the community more sustainable into the future.

Race & Ethnicity: The racial and ethnic makeup of Hamburg Township is very homogeneous. The majority of the population in the Township (96.2%) was estimated to be Caucasian in 2010. In contrast, it is estimated that only a small minority of the population of the Township (1.3%) considered themselves Hispanic or Latino/Latina. Asian and Black races round off the top four race population is the Township at .6 and .3 percent of the population respectively.

Education: Hamburg Township is highly educated with 95.3 percent of the population over age 25 having obtained a high school diploma and 73 percent of the population at least having some college education. In contrast, the State of Michigan has 89.9 percent of the total population over age 25 having obtained a high school diploma and 60.3% of the total population that have some college education.

Income: Hamburg Township has a strong economic base with 74 percent of Township residents earning \$50,000 or more annually and over half of Township residents earning more than \$75,000 annually. The median household income for the Township was estimated at \$82,819 as of 2016. In comparison, the median household income for the State of Michigan was estimated at \$50,803. Although these levels of income display a strong economic base compared to that of the State of Michigan, approximately 16 percent of the population earns below \$35,000 and 2.4 percent live below the federal poverty line. These estimates should be considered for access and affordability when planning for housing, transportation, and park and recreation needs within the Township.

Households & Families: Hamburg Township was comprised of 7,860 households (a person or group of people occupying a housing unit) in 2010, which is an increase of 774 households since 2000. The average household size was 2.69 people in 2010, which is a decrease from 2000 when the average household size in Hamburg Township was 2.88 people. Families (one or more other people related to the householder by birth, marriage or adoption) comprised 78.2 percent of all households with an estimated family size of 3.05 people in 2010. In 2010 Single-person households comprises 17.2 percent of all households within the township. While largest percentage of household in the Township were two person households, which comprised 37.7 percent of the total households in the Township. There were also significant proportions of three and four person households, 17.5 and 18 percent respectively. As of 2018 SEMCOG estimates there are 595 additional households since the 2010 census within the Township, for a total of 8,455 households. However, they are also estimating that the household size continues to drop to an average of 2.55 persons per household.

Over the past 50 years there has been a steady increase in the number of households in Hamburg Township and this is also reflected in the population levels. The rate of population and number of households increasing in tandem suggests that the community is stable and could result in favorable community involvement and

participation in parks and recreation activities. However, the average household size has recently been declining and this trend is expected to continue. The declining household size is likely due to aging population and reduced family sizes. The decline in the household size may create a more dispersed population if the housing densities do not increase accordingly. Future parks and recreation facilities will need to be dispersed to reflect the trend.

Housing Costs: Hamburg Township is almost entirely a single-family residential community with 91.1% of the housing units being single-family homes. In the 90's housing values in Hamburg Township started to increase at a more rapid rate and in 2000 the median value of housing was \$100,200. The value of Hamburg Township housing decreased slightly during the housing crisis starting in 2007; but has slowly and steadily increased since. The median price of a housing unit was \$183,100 in 2013 and in 2016 the median price was \$217,300. This is considerably higher than the median housing prices for the State of Michigan (\$127,800) and Livingston County (\$204,000) in 2016. Because of the high housing costs and other characteristics, there continues to be very limited housing opportunities for young families or senior citizens, who for the most part have limited budgets.

Housing Occupancy: Hamburg Township had 8,668 housing units in 2010, of those housing units, 7,860 were occupied, and 808 were vacant. Of the occupied housing units, 91.1 percent were owner occupied and 8.1 percent were renter occupied in 2010.

Age of Housing: Almost 75 percent of Hamburg Township's housing has been constructed since 1970 and 46.2 percent has been constructed since 1990. The Township had a housing boom in the late 1990's early 2000's. At this time Hamburg Township was the fastest growing Township in Michigan. This housing boom was ultimately slowed by the 2007 United States recession. Only 1.8 percent of the housing within the Township was constructed between 2010 and 2016. The slow growth in new homes and the decrease in the average household size could create a situation where the population of the Township starts to decline over time.

Seasonal Housing: In Hamburg Township, there were a total of 8,668 housing units in 2010, which is 981 more units or 12.7 percent more units than compared to total number of housing units in 2000 and is 3,578 more units or 70.3 percent more units than compared to the total number of housing units in 1990. Of the 8,668 housing units, 5.5 percent are not year round owner occupied homes. In comparison, 5.3 percent of the housing units were not year round owner occupied homes in 2000 and 10.3 percent of the housing units were not year round owner occupied homes in 1990. The decrease in the amount of seasonal housing within the Township provides evidence that existing cottages are being converted to permanent year round homes.

Housing Type: Hamburg Township is almost entirely a single-family residential community with 91.1 percent of the housing units being single-family homes in 2016. Another 5 percent of the housing units are made up of mobile homes. The remaining 3.9 percent of the housing units are some type or form of multi-family units, the largest portion of these units are duplexes at 1.7 percent. In 2016, it was also estimated that 84.2 percent of existing housing units had three or more bedrooms.

Population Projections: The three factors which modify the population of an area are births, deaths, and migration. The birth and death rate are factors over which local government can exert the least control. However, in and out migration is very much influenced by the local economy, transportation accessibility, development

policies and local lending policies. Utilizing the population projections prepared for the [2045 Regional Development Forecast by the SEMCOG](#) Hamburg Township's population will continue to grow slowly through 2045 with the population increasing to a projected 23,325 people and the total number of households growing to 9,491. Which is a 10.8 percent and a 14.8 percent increase respectively, from the 2010 census.

Summary: From 2000 to 2010 and continuing in the latest demographic estimates in 2016 and 2018 Hamburg Township's population growth has slowed, the community is getting older, more educated, and more affluent. The housing within the Township continues to increase in value, although construction of housing in the Township has also slowed. Most of the homes in the Township are single family detached and are owner occupied. The decrease in the population growth can be attributed to multiple factors; a decrease in the average household size due to the aging population, a decrease in the average family size with younger families waiting longer and having fewer children, and a reduction in the development growth of the Township. These demographic and housing trends for the Township are projected to continue through 2045.

Public Input and Outreach

Good planning requires extensive public outreach and feedback from a wide variety of stakeholders within the community. Township staff and the Master Plan Steering Committee understood the importance of this outreach and worked to get the community involved in all stages of the Master Plan process.

The following is a summary of the public outreach efforts that were held as a part of the Hamburg Township 2020 Master Plan process:

- On April 12, 2018 an initial kickoff meeting was held. This meeting was attended by many representatives from local governments and quasi-government agencies,
- In May of 2018 a website dedicated to the Master Plan was created to consolidate information on the Master Plan process and to allow the community an easily accessed portal for public review and comments on the Master Plan,
- In Mid-June 2018 the Master Plan survey was distributed to community members through the Township's websites, Facebook pages, email lists, personal invitations, and other outreach efforts in an attempt to receive greater public input,
- The Steering Committee members and Township employees staffed a booth at the Hamburg Township Fun Fest from June 14 to June 16, 2018, to further inform the public of the process and to gain greater public comment on the plan,
- The first three weeks of July 2018 Steering Committee members visited businesses throughout the community to solicit comments from the business community,
- On August 22, 2018 an ice cream social and public open house was held to discuss the Master Plan process and gather more comments from the public, and
- On September 7, 2018 the public survey was closed to the public for review.

From these public outreach efforts, it became clear that, in general, the community believed the quality of life within the Township was above average and that the things they enjoyed about the community such as the waterbodies, natural areas, and outdoor recreation options should be preserved. It also became clear that the community's goals and objectives had not changed dramatically since 2011 Master Plan. Therefore, the scope of this update would be mostly limited to updating the data used in the creation of the plan, revising the format of the plan to make it more user friendly, and by adding discussions of the new items required by MPEA.

[Appendix C](#), public outreach and input contains a full account of all the public input efforts including public survey results.

Community Goals and Objectives

What follows is three chapters on [Land Use](#), [Transportation](#), and [Natural Features](#). Each of these topics is important to the community and the creation of the Master Plan. Each chapter identifies its own community goals and objectives to better guide the development of the Township into the future. Some of the goals and objectives are found in multiple chapters as the goal or objective may address items considered under Land Use, Transportation and Natural Features.

Goals are general statements that define the direction and character of future development. Objectives create a framework for action and form the basis upon which more detailed development decisions may be made under a specific goal.

Goals and objectives should be followed by implementation measures. Implementation measures are action items that can be used in the future to meet the specific goal or objective of the Master Plan. The implementation measures listed in [Appendix A](#) are to be used as a guide to implement the goals and objective of the 2020 Master Plan. Yearly the Township should review the implementation measures and may determine that there are other items, not on this list, that are more important based on additional information or changing conditions. The inclusion of the implementation measures into the Master Plan does not commit Hamburg Township to any particular recommendations, but rather they are used to guide community decision makers to take actions consistent with 2020 Master Plan.

The goals and objectives from each chapter are summarized below for easy reference.

COMMUNITY GOALS AND OBJECTIVES	
GENERAL	
Goal 1: Protect and promote the public health, safety, comfort and general welfare.	
<u>Objective A:</u> Manage the Land Use, Transportation and Environmental aspects of the Township.	
<u>Objective B:</u> Create a healthy and safe community.	
LAND USE	

Goal 2: Preserve the natural and historic character of Hamburg Township by accommodating a reasonable amount of development, but ensuring the development is in harmony with the natural features and the unique environmental requirements of the Township.

Objective A: Direct future development to areas most suited for that type of development.

Objective B: Consider the location of the natural features on a site during review of future development layouts.

Objective C: Encourage preservation of the existing landscaping and natural features along M-36 to retain the rural/scenic quality of the Township.

Objective D: Encourage residential clustering and allow for a wider variety of uses on land that is actively farmed, develop additional practical alternatives for farmers to reduce the necessity to convert prime farmland to other uses.

Objective E: Cluster and contain future commercial development around existing commercial areas in the Hamburg Village, Village Center, M-36/Chilson Road, Lakeland, Hamburg Road and Ore Lake Road, M-36/Pettysville Road areas to enhance and serve the residents of the surrounding neighborhoods and motorists on M-36.

Objective F: Preserve the existing farmland throughout the community.

Objective G: Encourage clean energy sources, but still balance the benefits and drawbacks presented by the alternatives.

Objective H: To retain industrial growth within the area of the Township where it will least conflict with surrounding land use.

Goal 3: Promote a mix of development types to manage sustainable growth.

Objective A: Provide an avenue to allow for a diversity in housing types to support the changing demographics, such as young professionals, empty nesters and the increasing elderly population.

Objective B: Encourage development that supports the aging population of the community, including aging in place, access to core services, and the expansion of necessary medical services.

Objective C: Provide an avenue for attainable housing.

Objective D: Encourage development in the Village Center area as indicated in the [Village Center Master Plan](#).

Goal 4: Create a more visible identity for Hamburg Township and promote a sense of place within Hamburg Township.

Objective A: Encourage the development of the Village Center as indicated in the [Village Center Master Plan](#).

Objective B: Prioritize the economic development along the M-36 commercial corridor and in the Village Center area.

Objective C: Promote revitalization of the commercial properties.

TRANSPORTATION

Goal 5: Promote safe and efficient travel within the Township.

Objective A: Encourage maintenance and repair of existing transportation routes, including roadways, trails and transit.

Objective B: Provide and promote a vehicular and non-motorized transportation network that is a vital component of a high quality community environment for people who live, work, shop and recreate in Hamburg Township.

Objective C: Encourage vehicular and non-motorized connections between neighboring development and from developments to recreation facilities, commercial businesses, Township services and buildings and the school buildings.

Objective D: Manage growth by encouraging and promoting future development in areas with adequate transportation networks.

Objective E: Encourage developments to provide alternative transportation opportunities for their communities.

Objective F: Promote complete streets.

Objective G: Utilize best access management practices.

Goal 6: Accommodate increases in traffic volumes or implement measures to reduce traffic volumes on roadways where needed.

Objective A: Provide for higher traffic volumes through selected widening of M-36, intersection or traffic signal improvements, access management, preservation of select right-of-way and construction of indirect access systems.

Objective B: Utilize best access management practices.

Objective C: Encourage public transportation and multi-modal transportation options to reduce traffic on heavily used roadways such as M-36.

Goal 7: Preserve the rural appearance of the Township as viewed from the roadways when appropriate.

Objective A: Preserve the existing natural features along Township roadways including M-36 when possible.

Objective B: Development should be situated away from the main thoroughfares to protect key view sheds and to retain an appearance of low intensity development.

Objective C: Commercial development shall be contained at the Village Center area and key commercial nodes along M-36.

Objective D: Except in the Village Center area and other commercial corridors, existing landscaping and natural features viewed along M-36 should be preserved; development should be situated away from the roadway and key view sheds should be protected.

NATURAL FEATURES

Goal 8: Protect, preserve, and enhance whenever possible the unique and desirable natural amenities of Hamburg Township.

Objective A: Direct future development to areas most suited for that type of development.

Objective B: Consider the location of the natural features on a site during review of future development layouts.

Objective C: Encourage preservation of the existing landscaping and natural features of the rural/scenic quality of the Township.

Objective D: Encourage future development to incorporate green infrastructure measures.

Objective E: Discourage developments from removing existing woodland areas and significant trees when appropriate.

Objective F: Better regulate the usage of the waterways within the Township where possible.

Objective G: Identify and restore existing wetland areas that have been damaged.

Objective H: Encourage clean energy sources while still balancing the benefits and drawbacks presented by the alternatives.

CHAPTER 2-LAND USE

Overview

This chapter identifies the existing land uses and explores future development and land use opportunities.

Existing Land Use Conditions

Since the 2011 Master Plan was adopted Hamburg Township has experienced the following land development:

- 357 vacant residentially zoned parcels have been developed with new single family homes,
- The Hamburg Elementary School was demolished and a 208 unit apartment development has been approved on 16 acres in the Village Center area,
- A 70-unit, open space, site condominium development on 50-acres zoned medium density residential, along M-36, west of the railroad crossing was approved and construction has started,
- An 86-unit senior housing development on 6.5 acre zoned village center, previously occupied by a septic company, at M-36 and Veterans Memorial Drive was approved and construction has started, and
- Three properties were rezoned to better conform to their existing uses and to better serve the community as a whole and the adjacent neighborhoods into the future:
 - o 5960 Cunningham Lake Road (rezoned from PPRF to WFR),
 - o 10480 Hall Road (rezoned from GI to VR), and
 - o 8977 and 8999 Hamburg Road (rezoned from WFR to NS).

There are 23,040 acres within the Township. For the 2020 Master Plan update an inventory of existing land use was conducted using aerial photographs and verified by field observation. Existing land uses presented in [Map 1](#) were classified into the following categories and Geographic Information System software was used to calculate the acreages:

- **Vacant Land:** Includes land that currently is not developed with an improved structure. This may include property that is actively used for agricultural purposes. These lands comprise 3,475 acres.
- **Water Bodies:** Includes lakes and rivers and comprises 2,525 acres.
- **Single Family Residential:** Includes land that is developed with single-family homes and comprises 9,665 acres. These can be categorized into the following:
 - o Low density residential includes parcels developed with single-family residences at a density of one dwelling unit per two acres or greater. There are large lot single-family parcels throughout the Township, generally created through metes-and-bounds land divisions. The north and western portions of the Township are characterized by low density, or large estate sized parcels.
 - o Medium density residential includes parcels developed with single-family residences at a density of one dwelling unit per 20,000 square feet to two acres. These developments generally include subdivisions that developed since the Township adopted its first Zoning Ordinance in 1968 which

required a 30,000 square foot minimum lot size for a majority of the Township. The 30,000 square foot lot area requirement was increased to one acre in the early 2000's. Although the minimum lot size in this district is now one acre a development could utilize the planned unit development process to reduce this requirement with appropriate design.

- o High density residential includes parcels of land developed with single-family residences at a density greater than one unit per 20,000 square feet. This area consists of older subdivisions that were platted prior to the 1968 Zoning Ordinance. Much of this area was originally developed as resort cottage communities that have been converted to permanent year-round homes.
- **Multiple Family Residential:** There are a few small multiple family developments in isolated areas around the Township. Multiple family developments comprise 52 acres.
- **Manufactured Housing Community:** There is currently a mobile home park located in the southeast corner of the Township. This development comprises 88 acres.
- **Commercial:** Commercial includes all land and buildings where products, goods or services are sold. There are several commercial clusters located along M-36. The predominance of commercial activity is located on the north side of the Hamburg Village along M-36. Commercial uses comprise 156 acres.
- **Industrial:** Includes all lands and buildings devoted to manufacturing, processing, warehousing and related storage. Industrial uses are limited to locations around the Hamburg Village area. There is an industrial park at the eastern portion of the Township north of M-36. Industrial uses comprise 171 acres.
- **Public:** Includes public and quasi-public, which are all lands and buildings devoted to governmental facilities, schools, churches and cemeteries. Public facilities are generally located in the southern portion of the Township along M-36 and in the Hamburg Village area. These uses comprise 479 acres. Also included as public is state land and private recreation and preserved open space areas.
 - o The Brighton State Recreation Area comprises 4,345 acres in the northern portion of the Township.
 - o Private recreation and preserved open space includes golf courses, private recreation clubs and open space areas that are part of a clustered residential development and are preserved through a planned unit development or open space community regulations. Private recreation and open space lands comprise 2,066 acres.

Map 1 Existing Land Use

Hamburg Township,
Livingston County, Michigan

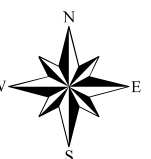
PUTNAM TOWNSHIP

GREEN OAK TOWNSHIP

WEBSTER TOWNSHIP, WASHTENAW COUNTY

- Single Family Residential
- Multiple Family Residential
- Manufactured Housing Community
- Commercial
- Conserved Open Space
- Industrial
- Public
- Vacant
- Village Boundary
- Water Bodies

0 0.25 0.5 1 1.5 2 Miles



Source: Hamburg Township, 2020

08/2020

Future Land Use Summary

The Future Land Use section of the Master Plan serves to translate community development goals into a narrative and graphic illustration. It is based largely on existing land use patterns, projected demographics, natural resource capability and adequacy of community facilities and services such as roads, public utilities, schools, police and fire protection. Other contributing factors include the input received during the Master Plan process and the consideration of proper planning principles. The [Future Land Use Map \(Map 4\)](#) is not intended to serve as a [Zoning Map \(Map 5\)](#) nor dictate the use of individual parcels of property. Rather, it is to be used as a generalized guide to the location of growth and development. The land uses and residential densities that are indicated are to serve as a guide to overall densities within the various areas provided.

Factors for Consideration: The following are factors that were taken into consideration in preparing the future land use plan and map:

- **Existing Land Use:** The existing land use patterns of both Hamburg Township and the surrounding communities were considered to ensure that the future land use plan would be compatible with those patterns. Forty-four percent of the Township's land has been developed for residential purposes, particularly single-family dwellings on individual lots. The location of most existing nonresidential development is appropriate and will continue to serve as the primary business centers for the Township. The communities land use patterns have evolved in a relatively orderly manner. Commercial developments are located along major roadways and in neighborhood centers. Industrial developments are in relatively secluded areas, away from signal family residential developments. Higher density residential development is in areas where residential development is in higher demand and more services can be provided. Lower density development is in areas further from services where more natural features can be preserved. These land use patterns will be continued, with slight modification, rather than altered in a significant manner. The Village Center area was created to guide future development and growth away from the more rural areas of the Township to a centralized area better equipped with a more adequate roadway system, existing utilities and a closer proximity to police and fire services.
- **Existing Zoning:** Changes to the existing zoning designations from the 2011 Master Plan are not proposed. However, there is no vested interest in a parcel that guarantees zoning will not change.
- **Natural Features:** The natural rolling topography, woodlands and waterways provide highly attractive and marketable property for development. The location of each future land use designation were determined, in part, by the location and extent of natural features. For example, soil conditions and the ability of the soil to accommodate individual septic systems require that certain areas of the Township be limited to low-density and medium-density residential development. Lower overall single family residential development densities are also proposed for properties containing significant wetland areas, although the use of clustered developments and green infrastructure in buildable areas of properties, while conserving the wetlands, can provide a balance between the environment and the development potential of the property.
- **Desires of the Community:** The future land use pattern desired by Township officials and property

owners has been expressed through a variety of venues. Residents and business owners generally expressed that they wanted to retain the quality of life within Hamburg Township by preserving and enhancing the existing natural features, waterbodies and outdoor recreational opportunities within the community, directing development to appropriate areas, and requiring a high quality of design for future development. To allow the community to thrive in the future it is important for Hamburg Township to create a sense of place and to diversify housing types to promote more multi-generational, senior and workforce housing opportunities.

- **Community Character:** The Hamburg Township community values the rural aesthetic of the Township. At the same time, there is interest in the Township continuing to provide desired high quality services. This can be done by ensuring that the quality, quantity and location of future development will provide the tax base to support the desires of the community while preserving the valued rural character.
- **Demographic, Housing and Populations Projection:** It was important to consider the existing demographics and housing stock within the community when preparing the Master Plan. This data along with the future demographics, and population trends of the community will provide information to guide the future land use needs of a community. For example:
 - o **Future Growth:** Hamburg Township is expected to experience steady slow growth (see [Appendix A](#) for demographic analysis). The Township population has been climbing steadily over the past thirty years, almost tripling in size. The Township is expected to continue to grow although at a much slower rate in the foreseeable future.
 - o **Aging Population:** The average age of the population of United States will be getting older over the next twenty to thirty years, with the majority of the baby boomer generation reaching the age of 65. Hamburg Township's population break down is currently older than that of the State of Michigan or Livingston County. The aging population will have impacts on the development of the Township. In 2010 11 percent of the population of Hamburg Township was older than 65 years old. By 2045 it is projected that over 29 percent of the Township's population will be older than 65 years old. This is important to consider when looking at the future land uses as older people have different needs and wants which will have different impacts on a community.
 - o **Declining Household Sizes:** The average household size has declined in the past twenty years. In addition, the increased number of households, relative to the size of the population, creates a need for more housing. In the future, the number of households is expected to increase at a faster rate than the population.
- **Non-conforming Lots:** There are a number of older subdivisions within the Township that pre-date current zoning and subdivision standards. In many instances, the lots within these subdivisions do not conform to current minimum lot size standards, are accessed by substandard roadways, have soil conditions that are unsuitable for onsite septic fields, and are located within wetlands or floodplains. These subdivisions are generally located along the Chain of Lakes and were originally developed for lakefront cottages. Over time and with the installation of the public sewer system, these small cottages

where able to be expanded and converted to permanent year-round residences and the vacant non-conforming lots are now more viable for development. The Zoning Ordinance provides that a nonconforming lot may be developed without obtaining a variance from the Township Zoning Board of Appeals provided the structure meets all setback requirements. Some of the non-conforming lots of record may not be able to be developed due their size, lack of adequate access or the location of existing wetlands and floodplains.

- **Relationship of Uses:** When considering future land uses the master plan strives to reduce or eliminate incompatible land use relationships existing in the Township. For example, industrial uses would be incompatible with single-family residential uses or in the middle of the village center area. The Future Land Use section designates areas for uses that are considered most appropriate for the community's long-term objectives, with the intention of eventually relocating some existing uses that do not meet these objectives. More dense residential development is directed to areas of the community that have the necessary infrastructure such as the Village Center area.
- **Residential Trends:** The fast pace of growth in Hamburg Township over the last 30 years has resulted in a significant amount of housing development. Most of the existing and new housing is comprised of single-family detached units and most of the housing that has been built over the last 20 years are large homes on large lots. The citizens of Hamburg Township have expressed a desire to continue with residential development on "large" lots. However the need for more diversity in housing types will increase due to changing demographics (aging, smaller households, lifestyle). As current residents age, some will desire to downsize and stay in the area. Also, a variety of housing is needed to allow younger families, single parent households, employees of the business within the community and other individuals to stay and live in the Township. For Hamburg Township to remain economically and socially viable into the future, a diversity of housing types should be promoted.
 - o **Senior Housing:** By 2045 it is estimated that people older than 65 will make up 29.5 percent of the Township population that will be up from 11.2 percent currently. The Township currently has zoning regulations for Elder Cottage Housing Opportunity (ECHO) Villages, which incentivizes development of senior housing. ECHO Villages consist of clustered cottage units with smaller minimum floor areas that are often less than 1,000 square feet. The cottages are permanent, singular or attached structures, and they are not accessory to a principal dwelling. ECHO Villages allow seniors the opportunity for an active, independent lifestyle, where they can age in place in their own home for as long as possible. Villages often have qualifying conditions such as age restrictions or they must have a household member that is disabled. Villages are built according to [International Code Council \(American National Standards Institute\) Accessibility Standards](#) and the [American with Disability Act](#) regulations for maximum interior and exterior accessibility. The zoning regulations for ECHO housing have been in place since 1993 and although these ECHO regulations provide for senior housing opportunities, there have only been two developments that have taken advantage of the ECHO regulations. Of those developments, only one of them is still age restricted. The Township should consider additional ways to promote housing that will be

accessible to this aging population.

- o **Missing Middle:** In the 2020 housing market it is expected that different housing types are needed to support changing demographics. Market demands for certain target groups such as young professionals and empty nesters, as well as the increasing elderly population are recognized as being very similar. All of these demographics are seeking a more compact, attached housing product in the form of row houses, townhomes, duplexes, four-plexes, or low rise apartments within established neighborhoods which exhibit a full array of amenities, such as walkability, parks or other recreation opportunities, and proximity to areas with commercial and entertainment opportunities. Proximity to jobs that are walkable, bike-able, or easily accessed by convenient transit are also important to young professionals and empty nesters who are still in the workforce. This housing type is being referred to as the “missing middle”. Missing middle is a range of multi-unit or clustered housing types compatible in scale with single-family homes that help meet the growing demand for walkable urban living. Such housing is intended to be incorporated into a traditional single-family neighborhood through infill projects in such a way as to be seamlessly integrated into the character of the neighborhood. Design regulations for such housing types should be created to ensure that new construction is consistent with the neighborhood both in scale and architectural quality. This type of housing should be directed to areas that can support the higher densities such as the Village Center area.



- o **Workforce Housing:** Workforce housing refers to housing that is affordable to those who are employed in the Township, but cannot afford to live in the Township. It is costly to train workers only to have them leave their employment if a job closer to their home becomes available. Based on survey results and conversation with employers within the Township and County; they have suggested that it is difficult to adequately staff some of the service and retail jobs within the Township because of the lack of housing for these workers. Other employees within the Township that may need workforce housing may be considered “essential workers” such as teachers, nurses, firefighters and police officers. Growth in the economy of the Township is greatly

hampered by the lack of workforce housing. As a solution to the lack of workforce housing, some employers across the country are building housing for their employees on land that they already own or have acquired. This dedicated employee housing near worksites can be a powerful attraction and retention tool for employers. Another workforce-housing tool is Employer Assisted Housing (EAH) programs through which employer's help employees attain rental or home ownership through benefits such as down payment assistance, rental/mortgage assistance, shared equity, forgivable loans, and matched savings or upfront grants.

- **Market Condition:** Market conditions were considered even though they may change during the time frame of this Plan. Hamburg Township's existing commercial, office, and institutional developments may experience growth in the coming years; however, the areas for this potential growth will remain unchanged from the 2011 master plan. Most of the growth will be infill of the existing facilities and on vacant properties within the existing designated areas. The manner in which the commercial development occurs will have potential impacts on the aesthetics of the community, traffic patterns, the level of commercial services enjoyed by Township residents, and the relationship to other land uses. Retail, trade, service and office/business jobs have historically been the employment base in Hamburg Township. Although the Township is mostly a bedroom community, the job opportunities within the Township are important to consider when looking at the future land use as it is important to provide housing opportunities for people working within the Township to limit future traffic and environmental impact on the community.
- **Commercial Trends:** The existing commercial nodes along M-36 offer a limited range of goods and services. The most common commercial uses in Hamburg Township are restaurants, service businesses and retail sales of convenience goods. Service-type businesses include beauty and barbershops, real estate offices, insurance offices and other businesses that provide a service rather than sell a product. Convenience goods are goods consumed or used on a daily basis, such as groceries, drugs, and hardware items. Only a few of the retail businesses within the Township market comparison goods. Comparison goods are purchased less frequently and usually only after people have compared prices and quality of competing stores. Township residents generally travel to surrounding communities such as Brighton or Howell for these comparison goods. If they desire a broad selection of goods or a variety of stores, residents will travel to regional shopping centers in Washtenaw or Oakland Counties. Certain specialized services, such as the services of a stockbroker or medical specialist, are generally acquired outside of the Township.
 - o **Commercial Development Potential:** Projections of commercial development potential through 2030 ([Appendix D](#)) was prepared for the 2011 Master Plan. With little change in the data between 2011 and 2019, these projections are still valid. The commercial base analysis revealed that continued commercial development, primarily convenience commercial, can be expected to meet the needs of the Township's population and that insufficient market support for most comparison goods businesses exists within the Township. Consequently, it appears that the potential for large-scale commercial development is limited. It is likely that any new construction of commercial

facilities will be no larger than a neighborhood shopping center. Such facilities can be accommodated within the existing commercially zoned areas of the Township. Also, based on the retail analysis of the [Village Center Master Plan](#), approximately half of the commercial development can be supported in the Village area.

- o ***Village Historic Downtown:*** This is the small commercial area along Hamburg Road within the Village Center area. With future development directed to the Village Center Area it will be important that small neighborhood oriented commercial opportunities be created in this area. These commercial activities will offer walkable and convenience services to the residents in the immediate area. The commercial node will also help to create a sense of place for not only the immediate neighborhood but for the community as a whole.
- **Infrastructure, Public Facilities and Services:** The density of residential uses and the designation of land for industrial and commercial development are dependent on the availability and capacity of the community's public water and sanitary sewers, existing transportation facilities, public infrastructure, important environmental features, and existing development patterns. Portions of the Township are currently served, are planned to be served, or have the potential to be served by public water and/or sewer, see the [Water and Sewer Master Plan](#) and the [Water Master Plan](#) for more details. Accessibility to and the capacity of the road network will determine, in part, the types and intensity of uses that the Township may expect. The availability of community facilities such as schools and recreational facilities determines the areas that are especially attractive for residential development, while the level of police and fire protection contributes to quality of life in all areas of the Township.
 - o ***Sanitary Sewer Service Area:*** Much of the historic development in Hamburg Township was around the chain-of-lakes. These areas were developed with resort cottages on small lots with individual septic drain fields. Over time, these areas have been converted to year-round homes. Areas surrounding the lakes have soil conditions and high water tables that are not well suited for drain fields. The combination of the natural soil characteristics and increased residential use of the lake areas led to significant problems with septic tank systems. The lack of septic system treatment performance was affecting the quality of wells and the lakes. In response to these problems, Hamburg Township has provided a sanitary sewer system to serve the most intensely developed areas around the lakes. Currently, in conjunction with the Township's system, there is an agreement between Hamburg Township and the City of Brighton for treatment. The City of Brighton Sewage Treatment Plant is located in the northeast corner of Hamburg Township. To accommodate the current and projected level of development and to reduce the environmental impacts of the existing and future development, Hamburg Township prepared a [Water and Sewer Master Plan](#). The plan indicated and increased service areas including the Village Center and the area around Rush Lake. Sanitary sewer services have also been expanded to serve most of the southern and eastern portions of the Township. ([See Map 2, Existing and Future Sanitary Sewer Districts](#))

Map 2 Existing and Future Sanitary Sewer

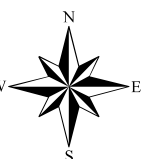
Hamburg Township,
Livingston County, Michigan

- Current Sewered Parcels
- Future Sewer Districts
- Existing Sewer Lines

PUTNAM TOWNSHIP

GREEN OAK TOWNSHIP

0 0.25 0.5 1 1.5 2 Miles

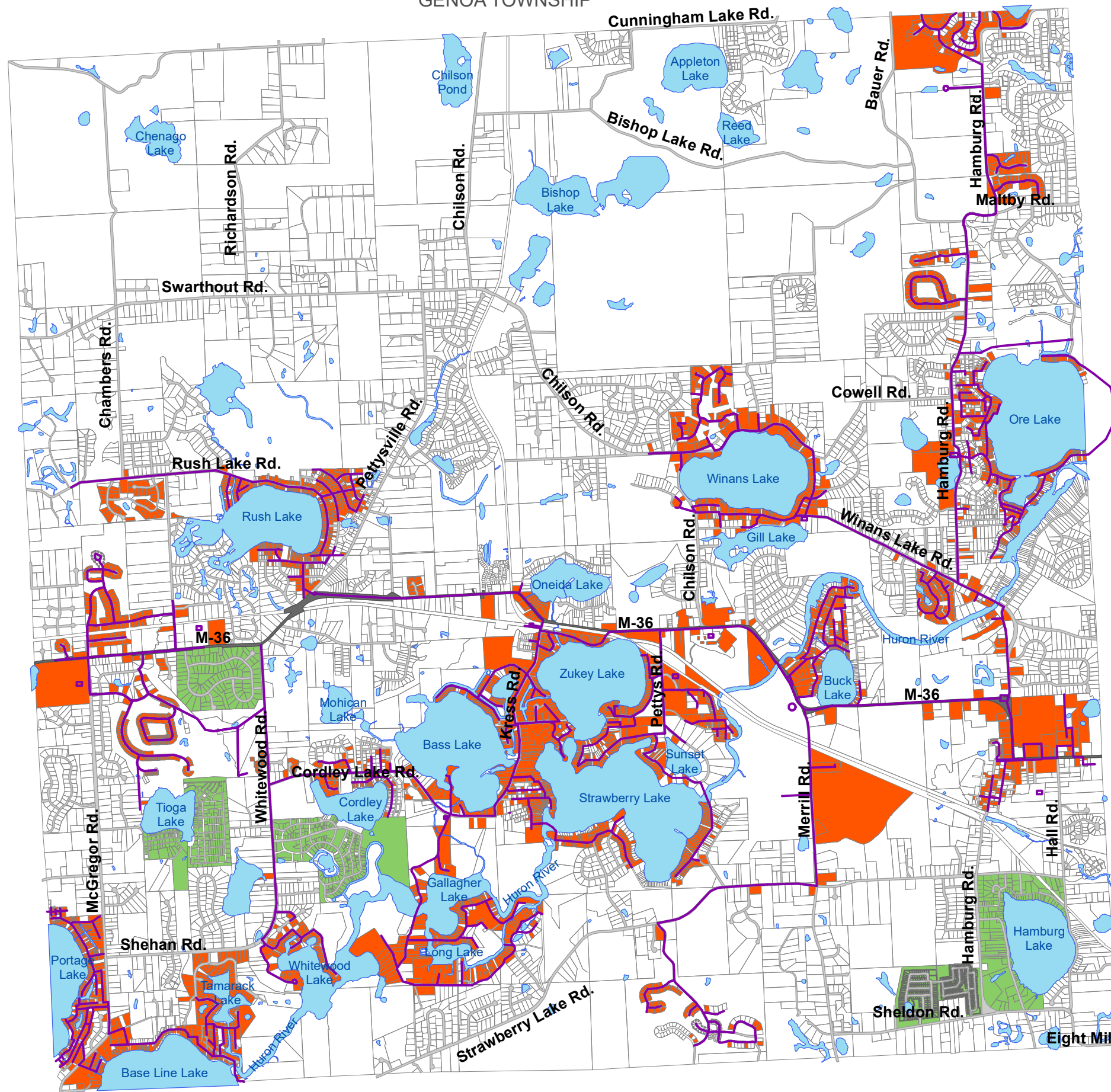


Source: Hamburg Township, 2020

08/2020

GENOA TOWNSHIP

WEBSTER TOWNSHIP, WASHTENAW COUNTY



- o **Public Water:** The growth of Hamburg Township has led to the development of a public water supply system. Township residents and businesses largely continue to rely on individual wells for water supply with only eight businesses currently hooked up to the public water system. The need for municipal water has been greatest within the Hamburg Village area, because the Village is planned for much of the higher density development within the Township. There also exist areas in the township with low water production where a public water system would alleviate current low capacity issue for residents and potentially allow for development of sites. The Township updated the section of the [Sewer and Water Master Plan](#) in 2006 with the creation of the [Water Master Plan](#). This plan creates a water service area and splits that area into four phases. The water services will be extended based on the plans for each phase when new development is proposed in the areas ([See Map 3, Existing and Future Water Map](#)).
- **Neighboring Communities:** Land use in the areas surrounding Hamburg Township is predominantly low density residential, recreational, agricultural, and vacant. The City of Brighton, bordering the northeast corner of Hamburg Township, represents the most urbanized neighbor. Hamburg Township's relationship with its neighbors will be closely tied to land use activities along the major growth corridors linking Hamburg Township with neighboring units. These corridors include M-36 west to Putnam Township, M-36 east to Green Oak Township, Brighton Road north to the City of Brighton and Chilson Road north to Genoa Township and the City of Howell, Hamburg Road southeast to Green Oak Township and Strawberry Lake and Merrill Roads south to Webster Township. All units of government should carefully weigh the impact on their neighbors of land use decision within the major growth corridors.
- **Emerging Technologies:** Innovations and technological advances will likely have impacts on the future growth of the Township. One recent example of technology affecting growth came about with the invention of the internet and more recently with the access and ease in on-line shopping. This online shopping trend has affected the existing and future growth of retail development throughout the Township, and the entire world. Two of the most recent up and coming emerging technologies that may have an impact on land use within the Township are in Alternative Energies. Due to solar and wind power generation becoming more economically feasible, the fact that solar and wind are a cleaner energy source, and the fact that new federal and state laws have been created to requiring less dependence on fossil fuels, there is greater pressure on municipalities to allow larger scale solar and wind projects. Solar and wind power may have less impacts on the environment, but large scale solar and wind project systems could have greater impacts on nearby properties. Another new technology that may have an impact on future growth in the Township is autonomous vehicles. Although these vehicles are currently not in mass production, they may within the time frame of this Master Plan. The Township should continue to monitor new technologies and to weigh the benefits and impacts of these technologies when determining how to regulate them.
- **Existing Township Master Plan:** The previous Township Master Plan, adopted by Hamburg Township in 2011, and other applicable plans were reviewed and used as a guide for the current version of the Township Master Plan. Because the opinions of the community, the demographics of the area and the

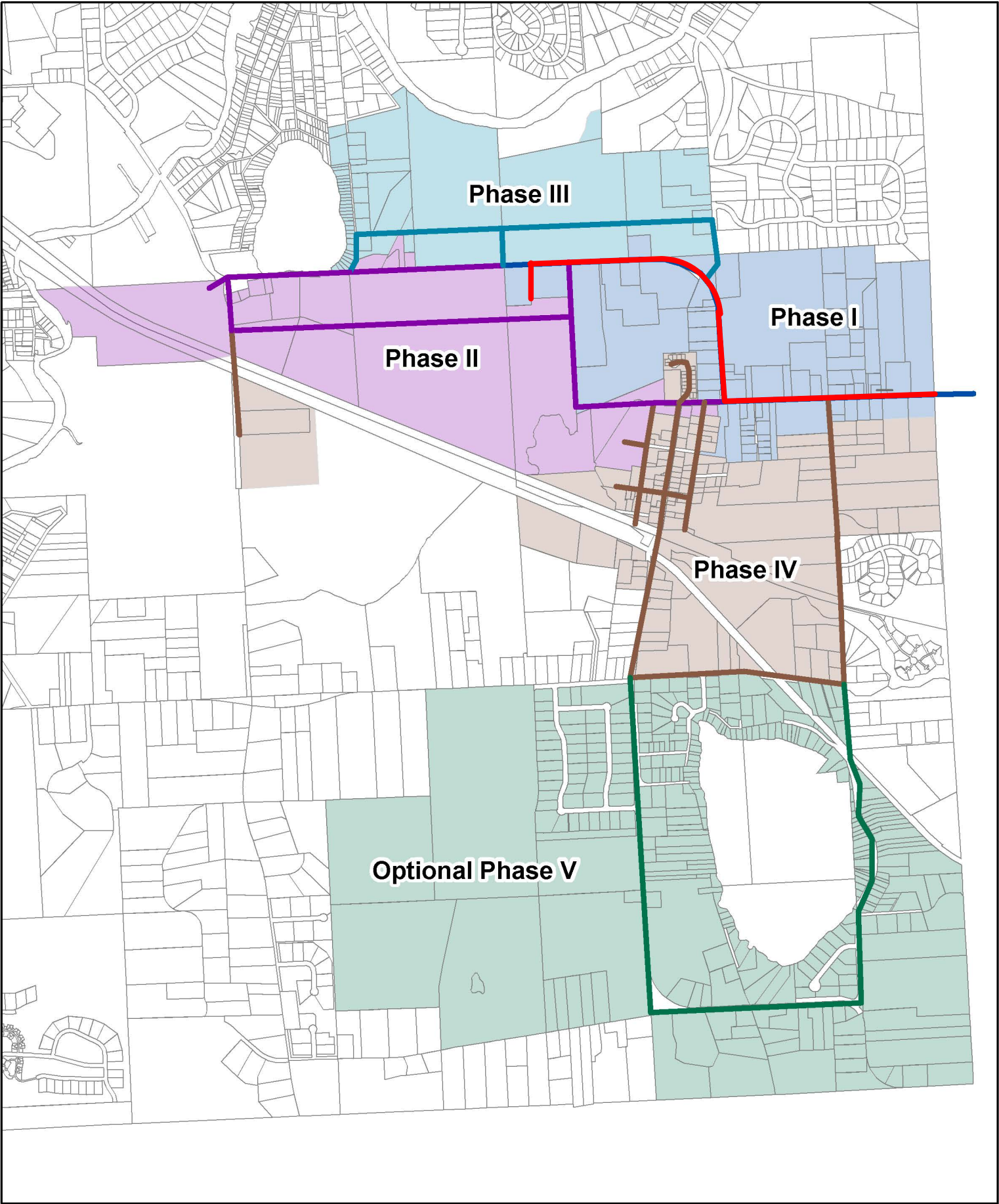
existing land uses have not significantly changed since our last Master Plan update in 2011 the future land use plan contained in the previous plan has been re-evaluated based on current trends and conditions and has not been significantly changed.

Map 3 Existing and Future Water Service

Hamburg Township,
Livingston County, Michigan

Existing Water Line
(Livingston County Water Authority)

This Map is the Water System Phasing map which creates a water service area and splits that area into four phases. The water services will be extended based on the plans for each phase when new development is proposed in the areas.
(Excerpt of Hamburg Township Water and Sewer Master Plan, 2006)



Source: Hamburg Township, 2020

Future Land Use Designations

Rural Low Density Single Family Residential (One dwelling unit per two acres): Rural Low Density Residential land use is planned for land areas within the southern and northern most portions of the Township that are least capable of supporting development. This designation also applies to transitional areas from the recreational lands to the Medium Density Single Family Residential in the northern third of the Township. Much of this area contains significant natural features such as wetlands and floodplains.

Within the Rural Low Density Residential area, single-family residences should be developed at one dwelling unit per two acres. The overall density of this area should be kept relatively low. The provision of low-density rural residential areas will lead toward the preservation of open space and the rural atmosphere of Hamburg Township. Developments in these areas are encouraged to take advantage of the Township's open space and agricultural tourism provisions.



Medium Density Single Family Residential (One dwelling unit per acre): Medium Density Residential is intended for areas that are characteristic of moderate density residential and undeveloped land areas, which are capable of supporting development at moderate densities. This designation applies to much of the land surrounding the lakes and in the center of the Township concentrated along M-36. Medium density residential provides for single-family residences at a density of one dwelling unit per acre. Developments in these areas are encouraged to take advantage of the Township's open space provisions.

High Density Single Family Residential (Four to ten dwelling units per acre):

High Density Single Family Residential is intended for areas that are characteristic of higher density residential, capable of supporting development at higher densities, and located in close proximity to community facilities, service, transportation routes, and commercial areas. This designation applies to the areas around most of the lakes within the Township, as well as in the Village Center. High Density Single Family Residential provides for single-family residences at four dwelling units per acre and higher. Developments in these areas are encouraged to take advantage of the Township's planned unit development regulations to allow projects that provide additional benefits to the Township more regulatory flexibility.



Multiple Family Residential: Multiple Family Residential is specifically identified for areas capable of supporting development at higher densities and located in close proximity to community facilities, service, transportation routes, and commercial areas. It is intended that these areas will develop as multiple family or mobile home park residential with public water and sanitary sewer. Densities will vary depending upon site conditions, but is planned to be a net of four dwelling units per acre. Developments in these areas are encouraged to take advantage of the Township's planned unit development regulations to allow projects that provide additional benefits to the Township more regulatory flexibility.



Neighborhood Commercial: Neighborhood commercial includes all land and buildings where products, goods or services are provided to serve the residents of the immediate neighborhood areas. These uses are smaller, low traffic generating commercial services. This land use designation is for the maintenance of the existing commercial clusters located along M-36.

Neighborhood commercial includes two areas that are located on the chain-of-lakes and one small area along Hamburg Road. These waterfront and neighborhood commercial areas are intended to develop for low intensity uses that serve the immediate neighborhood and boaters. Uses would include restaurants, bait shops or small neighborhood grocery stores. Developments in these areas are encouraged to take advantage of the Township's planned unit development provisions.

General Commercial: General commercial includes all land and buildings where products, goods or services are provided to service a larger community area. These uses will be larger uses and will generate higher traffic volumes. This land use designation will be used for the maintenance and some expansion of the existing commercial clusters located along M-36. Strip commercial development along M-36 beyond these community nodes should be discouraged.



Industrial: Industrial properties are contained to the larger existing industrial areas. These areas are relatively isolated from residential areas and can be provided with existing and planned community facilities and services, such as access to M-36 and public water and sewer services.

Public/Quasi-Public: The public/quasi-public includes all lands and buildings devoted to governmental facilities, schools, parks and cemeteries.



**Public and Private Recreational Facilities (40 acre lot size):**

Public and private recreational land provides an exclusive area for specified government, civic and private recreational facilities. This will assist in protecting the Brighton State Recreation Area and private recreational facilities from intrusion by more intense suburban development that would otherwise detract from the natural amenities and resources of this area. These types of land uses will also limit the need for extensive public services such as public water, sanitary sewer, and additional schools. This area of the Township is largely in a natural state and contains large areas of woodlands, wetland and wildlife habitat.

Natural River Residential: The natural river residential is located within the Huron Natural River District, as established by [Huron River Management Plan](#) adopted by the Natural Resources Commission (NRC). All land within 400 feet of the shoreline of the Huron River is included in this designation.



Waterfront Residential: The waterfront residential is located along the major lakes within the Township and intended to regulate the small waterfront parcels, typically less than one acre. These parcels should maintain their existing character and setbacks from the lakes. Developments in this district are encouraged to take advantage of the Township's open space provisions.

Village Center: The Village Center area was created to allow a critical mass of activities and to be pedestrian oriented in order to create a sense of place within the Township. This Village Center area and the [Village Center Master Plan](#) were designed to create a community center area within the township, offers additional services, encourage development, and allow a variety of development types. Encouraging the development of the Village Center area will lessen the development pressures on other areas throughout the township that may be less suitable for development. Developments in this district are encouraged to take advantage of the Township's planned unit development regulations.



Map 4

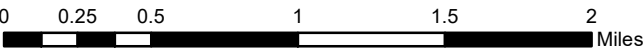
Future Land Use

Hamburg Township, Livingston County, Michigan

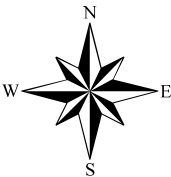
- High Density Residential
- Medium Density Residential
- Low Density Residential
- Multiple Family Residential
- Waterfront Residential
- Natural River Residential
- Neighborhood Commercial
- General Commercial
- Conserved Open Space
- Public and Private Recreational Facilities
- Public/Quasi-Public
- Water Bodies
- M-36 Corridor
- Trail

Village Center Area

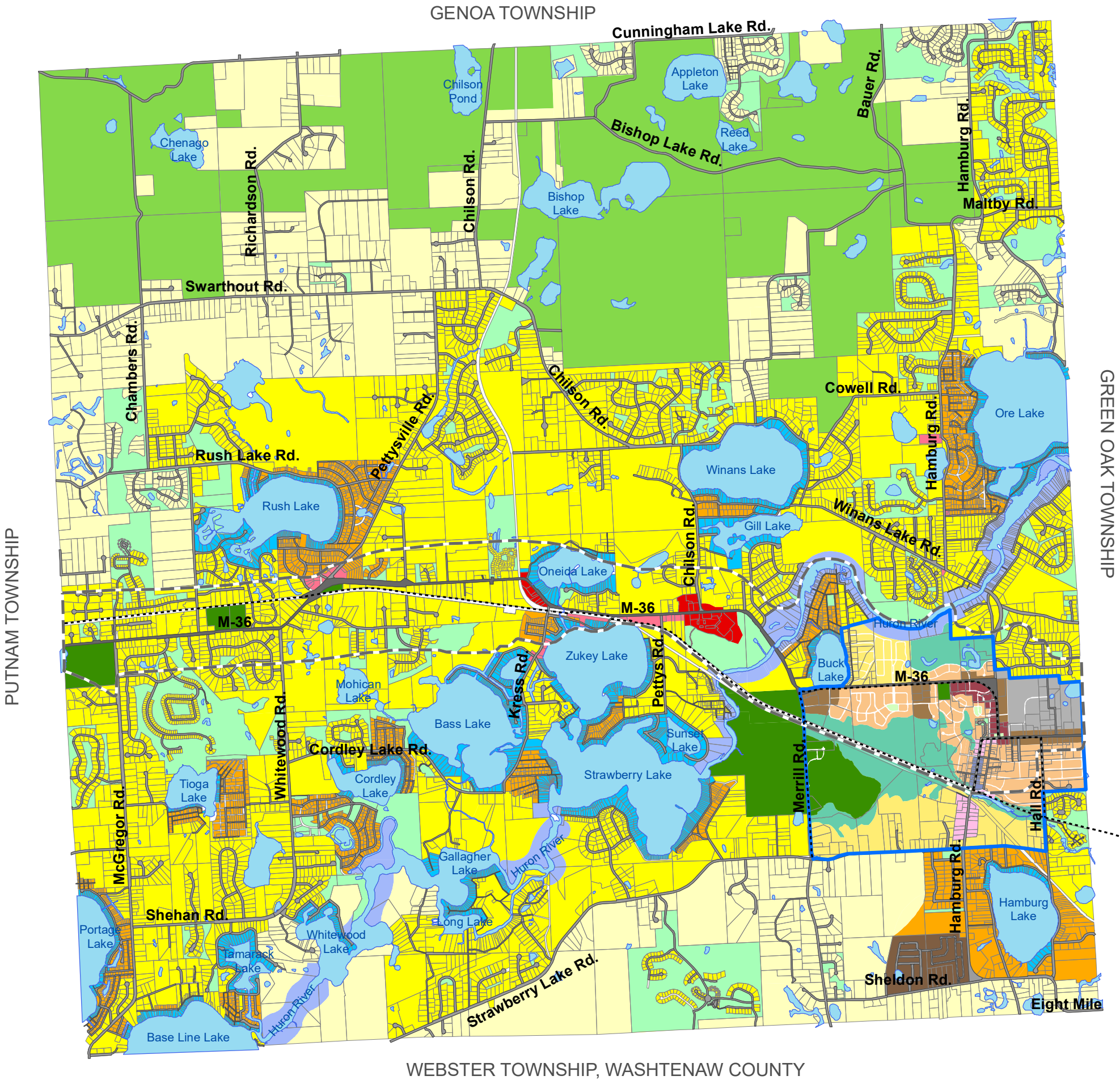
- Village Residential-2
- Village Residential-10
- Village Core
- Village Gateway
- Village Historic
- Village Transition
- Industrial
- Conservation District
- Parkland
- Village Boundary



Source: Hamburg Township, 2020



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Zoning

The following table illustrates the proposed future land use and the corresponding zoning district designations. This table in combination with the [Future Land Use Map](#), should be used as a guide to making decisions on rezoning. However, there are also other conditions that need to be taken into consideration when making a decision on the appropriate timing of a rezoning, such as current availability of public infrastructure.

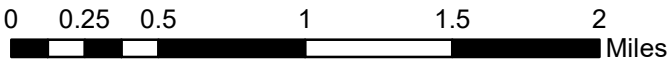
Table 1
Future Land Use Classifications and Applicable Zoning Designations

Land Use	Proposed Density	Applicable Zoning District(s)	Actual Density
Rural Low Density Single Family Residential	1 unit/2 acres	RAA – Low Density Rural Residential	1 unit/2 acres (87,120 sq. ft.)
Medium Density Single Family Residential	1 unit/acre	RA – Medium Density Residential	1 unit/acre (43,560 sq. ft.)
High Density Single Family Residential	4 units/acre	RB – High Density Residential	1 unit/10,000 sq. ft.
Multiple Family Residential	4 units/acre	RC – Multiple Family Residential MHP – Mobile Home Park Residential	Varies depending on size of development
Neighborhood Commercial	NA	NS – Neighborhood Service	NA
General Commercial	NA	CS – Community Service	NA
Industrial	NA	LI – Light Industrial GI – General Industrial	NA
Public and Private Recreational	1 unit/40 acres	PPRF – Proposed Public and Private Recreational facilities	1 unit/40 acres (1,742,400 sq. ft.)
Natural River	1 unit/acre	NR – Natural River Residential	1 unit/acre (43,560 sq. ft.)
Waterfront Residential	1 unit/acre	WFR – Waterfront Residential	1 unit/acre (43,560 sq. ft.)
Hamburg Village	*See Hamburg Township Village Center Master Plan	Proposed VG – Village Gateway VC – Village Core VH – Village Historic VT – Village Transition VR-2 – Village Residential 2 VR-10 – Village Residential 10 MD-Mixed Development	Varies depending on land use type

Map 5 Zoning Map

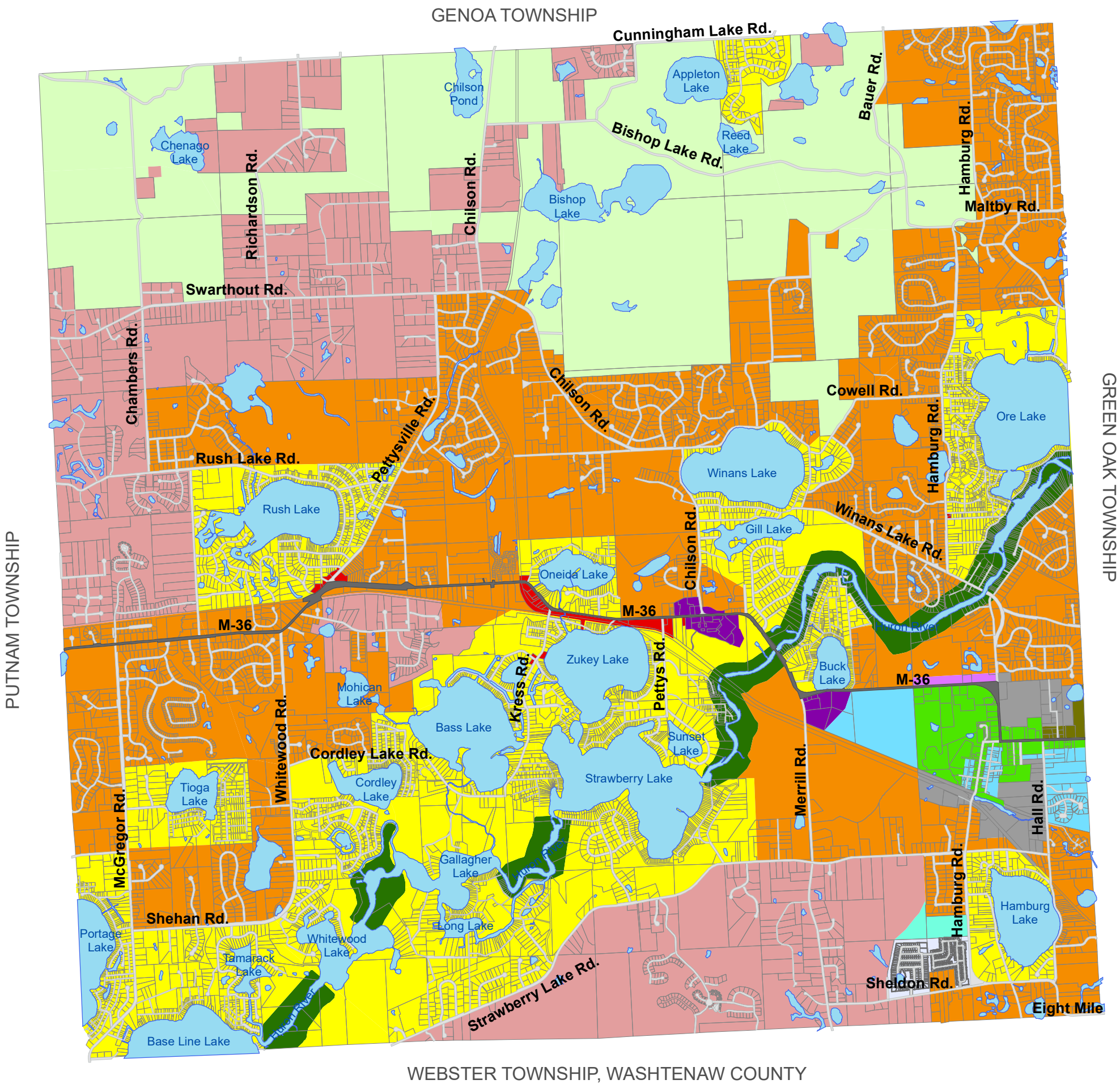
Hamburg Township,
Livingston County, Michigan

- Zoning District**
- RAA - Low Density Residential
 - RA - Medium Density Residential
 - RB - High Density Residential
 - WFR - Waterfront Residential
 - NR - Natural River Residential
 - MHP - Mobile Home Park Residential
 - NS - Neighborhood Service
 - CS - Community Service
 - LI - Limited Industrial
 - GI - General Industrial
 - MD - Mixed Development
 - VC - Village Center
 - VR - Village Residential
 - PPRF - Public and Private Recreational Facilities



Source: Hamburg Township, 2020

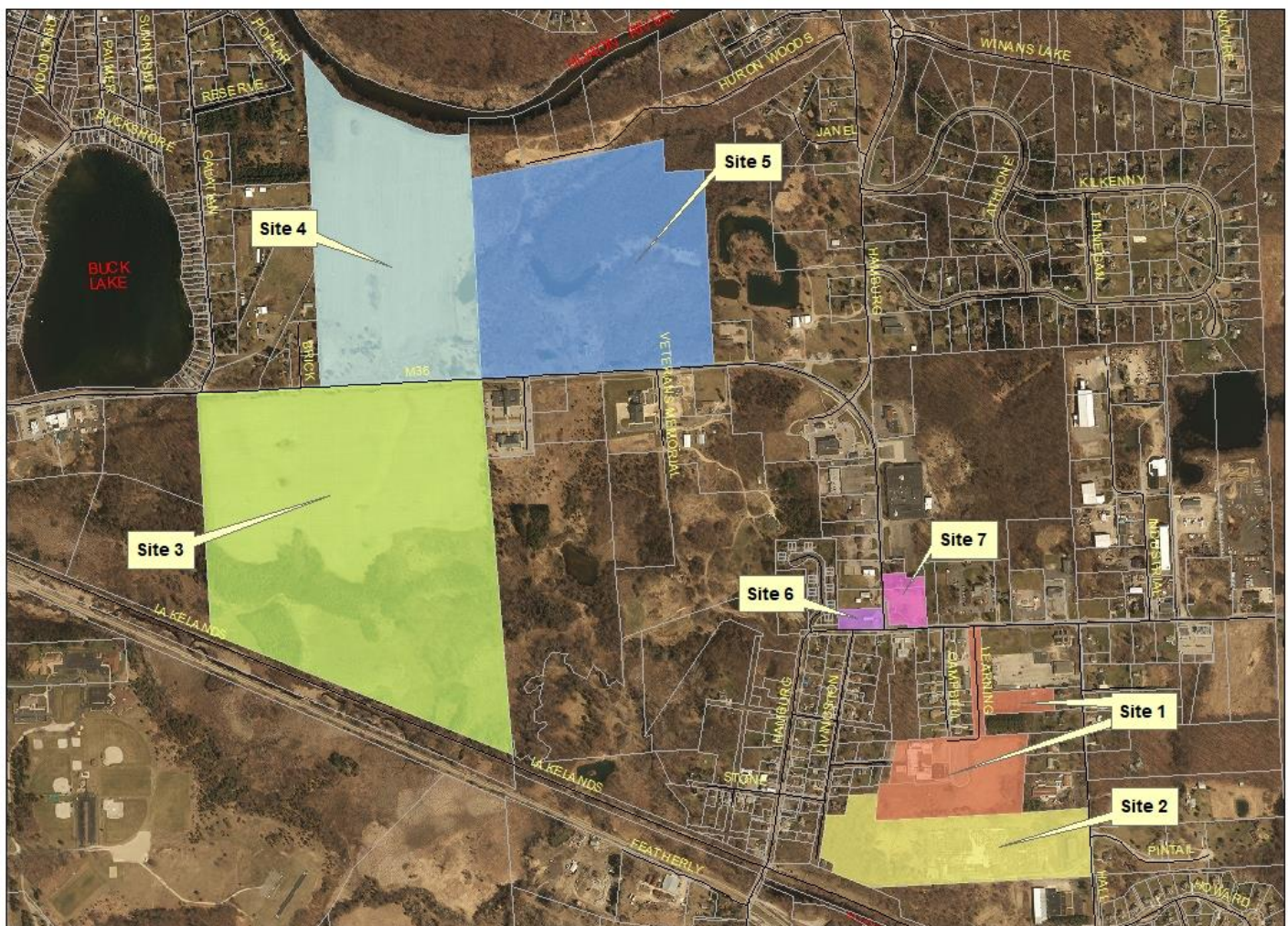
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Opportunity Sites

Seven sites have been identified to spotlight for future development opportunities. These sites have been chosen because they are currently vacant or under-utilized, given their location, unique features, and size. All of the sites chosen are located within the [Village Center Master Plan](#) area, as it is the Township's goal to direct development to this area helping to preserve other areas of the Township that are more environmentally sensitive and less suitable for development. This area is also in close proximity to existing sewer and water services. Although there are many vacant or under-utilized sites throughout the Township, these seven sites have been singled out to highlight their potential for future development.

**Map 6
Hamburg Township Opportunity Sites**

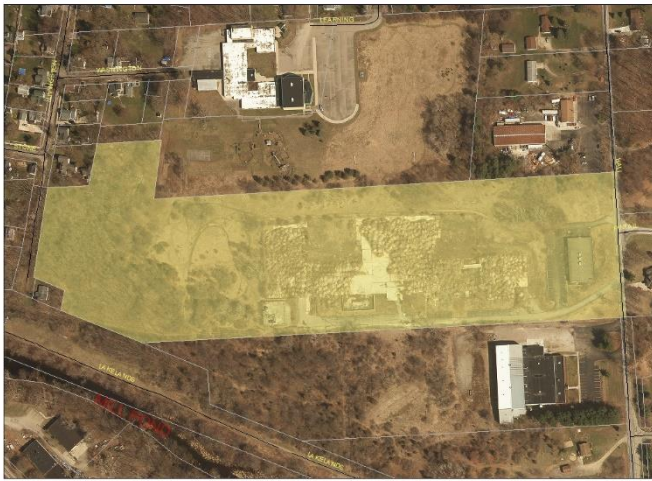


Opportunity Site 1: Old Hamburg Elementary

Sites: 16-acre area that is currently vacant. In December of 2016 the site was rezoned under a Planned Unit Development to include 208 unit apartment complex. The existing buildings were removed from the site and the lot was cleared for development but no improvement have been started. The property is currently zoned Village Center (VC) and the [Future Land Use Map](#) designates this site for Village Residential-10. This site ideal for higher density residential as it has direct access to the old downtown area, M-36 and the Lakeland Trail.



Opportunity Site 2



Opportunity Site 2: Hoskins Property: A 20-acre site that currently has a vacant single story commercial building on it. The Hoskins Manufacturing facility closed in 2001 and since this property has been bought and sold multiple times at municipal tax sales. The site is currently considered a brownfield site due to contamination resulting from the prior manufacturing facility and the depositing of fill materials from unknown sources on the site. In 2018 the Hamburg Township Brownfield Redevelopment Authority was granted a Brownfield Development Loan and Grant from the Michigan Department of Environment, Great Lakes and Energy (EGLE) to help the owners of the property with the clean-

up of the site, which includes the removal of an existing building and the necessary clean-up to address soil and groundwater contamination. The property is currently zoned General Industrial (GI) and the [Future Land Use Map](#) designates the site as Village Residential-10. Because of the zoning and future land use designations this property can be used for a wide variety of development types.

Opportunity Site 3: Knapp Property: A 97-acre vacant site off of the south side of M-36 and west of Professional Center Drive. The site is zoned High Density Residential (RB) and the [Future Land Use Map](#) designates a portion of this site for Village Gateway district and a portion of this site for Village Residential-10.



Opportunity site 4 and 5: Knapp Property and Guo Property (North Side of M-36): These sites include 102 acres of vacant property off of the north side of M-36 across from Veterans Memorial Drive and Professional Center Drive. The southern 100 feet of these sites is zoned for Mixed Development (MD), and the rest of the site is zoned Medium Density Residential (RA). The [Future Land Use Map](#) designates the site as Village Residential-2. Opportunity site 4 is approximately 48 acres and is relatively flat with the Huron River running along the north property line. Opportunity site 5 is approximately 54 acres and has a sensitive wetland area in the middle of the property.

Opportunity site 6 and 7: Quin-Martin Property and Silay (Quonset Hut) Property: These sites include 3.18 acres of vacant property at the northwest and northeast corner of the intersection of M-36 and Hamburg Road. These sites are zoned Village Center (VC) and the [Future Land Use Map](#) designation is Village Core with a small area at the corner of each of the sites to remain public parklands to create a defined entrance to the Village Center area of Hamburg Township. With the construction of new residential developments of approximately 250 units in Green Oak Township directly adjacent to the eastern boarder of Hamburg Township along M-36 these sites are prime locations for future mixed use development with commercial on the ground floor and residential or office above.



Goals and Objectives

The following section will list out some of the more important goals and objectives of the Land Use section followed by possible implementation measures to reach these goals.

LAND USE GOALS AND OBJECTIVES

Goal 2: Preserve the natural and historic character of Hamburg Township by accommodating a reasonable amount of development, but ensuring the development is in harmony with the natural features and the unique environmental requirements of the Township.

Objective A: Direct future development to areas most suited for that type of development.

Objective B: Consider the location of the natural features on a site during review of future development layouts.

Objective C: Encourage preservation of the existing landscaping and natural features along M-36 to retain the rural/scenic quality of the Township.

Objective D: Encourage residential clustering and allow for a wider variety of uses on land that is actively farmed, develop additional practical alternatives for farmers to reduce the necessity to convert prime farmland to other uses.

Objective E: Cluster and contain future commercial development around existing commercial areas in the Hamburg Village, Village Center, M-36/Chilson Road, Lakeland, Hamburg Road and Ore Lake Road, M-36/Pettysville Road areas to enhance and serve the residents of the surrounding neighborhoods and motorists on M-36.

Objective F: Preserve the existing farmland throughout the community.

Objective G: Encourage clean energy sources but still balance the benefits and drawbacks presented by the alternatives.

Objective H: To retain industrial growth within the area of the Township where it will least conflict with surrounding land use.

Objective I: Address potential problems that may be associated with development of nonconforming lots of record, particularly development of the existing vacant nonconforming lots of record that are constrained by size, location or access.

Goal 3: Promote a mix of development types to manage sustainable growth.

Objective A: Provide an avenue for to allow for a diversity in housing types to support the changing demographics, such as young professionals and empty nesters and the increasing elderly population.

Objective B: Encourage development that supports the aging population of the community, including aging in place, access to core services, and the expansion of necessary medical services.

Objective C: Provide an avenue for attainable housing.

Objective D: Encourage development in the Village Center area as indicated in the [Village Center Master Plan](#).

Goal 4: Create a more visible identity for Hamburg Township and promote a sense of place within Hamburg Township.

Objective A: Encourage the development of the Village Center as indicated in the [Village Center Master Plan](#).

Objective B: Prioritize the economic development along the M-36 commercial corridor and in the Village Center area.

Objective C: Promote revitalization of the commercial properties.

CHAPTER 3-Transportation

Overview

This chapter identifies the existing transportation conditions and explores future transportation needs and opportunities across five main mode of transportation: vehicular, pedestrian, bicycle, rail and air transportation

Existing Transportation

Hamburg Township is characterized by lakes and rolling topography. The beauty and abundance of the natural features make Hamburg Township a desirable place for homebuyers that are seeking a rural atmosphere. While the Township's many natural features enhance the desirable quality of the community, they present limitations for roadways. The rolling topography, sharp curves and limited sight distances, while enhancing the pedestrian and bicycle transportation conditions, contribute to more difficult driving conditions, especially during adverse weather. Complicating these conditions are narrow driving lanes along roadways, which are constrained to relatively narrow right-of-ways. Adjacent land uses and numerous road intersections at curves and areas with poor sight distance cause traffic flow restrictions and potential safety hazards.



The Township's vehicular corridors are linked to the regional transportation network via M-36, which intersect with US-23 in neighboring Green Oak Township. Arterial east-west roads within the Township are M-36, Strawberry Lake Road, and Winans Lake Road. The major north-south roads within the Township are Hamburg, Chilson, Pettysville, Whitewood, and McGregor Roads.

Among the roads in Hamburg Township, M-36 is a state route under the jurisdiction of the Michigan Department of Transportation (MDOT). Primary and local public roads are maintained by the Livingston County Road Commission (LCRC) with the State Motor Vehicle Highway Fund matched by Township funds.

M-36 links many communities including the communities adjacent to Hamburg Township including Village of Pinckney, Putnam Township and Green Oak Township. There is currently much concern over the safety and general conditions of M-36, which is the most travelled roadway within the community. The same concerns exist for county roads. Chilson Road and Winans Lake Road are the busiest county roads in the Township. Other roads within the Township that have greater daily usage are Hamburg, McGregor and Pettysville Roads. Many of these roads have limitations due to sharp curves and poor sight distance. Complicating these conditions are driving lanes, which are 11 feet instead of 12 feet wide with gravel shoulders along most of the road. Adjacent land uses and numerous primary road intersections cause traffic flow restrictions and potential safety hazards. Bishop Lake Road is the only county primary gravel road in Hamburg Township and provides access to the Brighton State Recreation Area. Traffic volumes are higher on this roadway during summer weekends and holidays.

Local subdivision roads built in the 1920's and 1930's were not subject to Livingston County approval. Many of these roads serving lake frontages are often very narrow and provide little right-of-way for improvements or maintenance. Some of these roads have segments with only one gravel lane making it difficult if not impossible for two vehicles to pass. There are a number of subdivisions within the Township that were platted with roads that were never constructed. There are also some privately owned lots of record that do not have improved road frontage. As development of the Township continues and un-subdivided parcels become scarcer, demand for developing these old lots of record is becoming greater. Dealing with development in this situation is difficult because these lots are often developed on a lot-by-lot basis and if road improvements are constructed, they are completed on a piece-meal basis. Making this situation more difficult, the road improvements in these situations fall of the owner of the property that is requesting the developed. This property owner then needs to work on an agreement with other property owner that may benefit from the new improvements, to cover the cost of the new roadway or they will need to cover the costs themselves. While new public roads are subject to LCRC approval and design standards, the Township should work with the LCRC to develop policies for dealing with development on these platted, un-improved roads.

The roadway system within Hamburg Township has a four element hierarchy which includes a major arterial (M-36), arterial, collector, and local streets. This hierarchy defines the roles of each street in terms of operational requirements, which in turn can be translated into planning, management and physical design features.

Table 2
Hamburg Township Roadway Hierarchy

	North/South	East/West
Major Arterials		M-36
Arterials	Hamburg Road (portion) Chilson Road Pettysville Road	Winans Lake Road
Collectors	Whitewood Road McGregor Road Merrill Road (portion) Hamburg Road (portion) Bauer Road*	Strawberry Lake Road Shehan Road Cunningham Lake Road* Bishop Lake Road Swarthout Road* Maltby Road
Local Streets	All other streets	All other streets

*Portion of roadway gravel

There are two major bridges in Hamburg Township, both spanning the Huron River. The M-36 bridge which was recently widened to 40 feet to carry two 12-foot lanes of traffic with eight-foot shoulders. The Winans Lake Road bridge was replaced in 2009 and has an expected life of another 50 years. Both of these bridges are in the eastern portion of the Township. Where the river flows out of the southwest corner of the Township, it is a

considerable distance into Washtenaw County before there is another crossing. The distance along the Huron River between the M-36 bridge and the North Territorial Road bridge in Washtenaw County is approximately eight miles.

The major non-motorized route through the Township is the 10-foot-wide, paved, multi-use, Lakelands Trail. This trail was constructed within an abandoned railroad right-of-way. It begins in the center of the Old Hamburg Village area and continues west to the Township line and onwards to the Village of Pinckney to the west. The Lakelands Trail travels through some of the more developed portions of the Township and runs adjacent to the Pinckney Middle School at the western edge of the Township. The Lakelands Trail provides a valuable non-motorized route through the Township. As new developments are being built, many neighborhood paths and trails are also being created within these developments. As these new developments and new pathways are created future connections to adjacent developments, community commercial nodes and the Lakeland Trails should be considered.



There are currently limited public transportation options within Hamburg Township. Livingston Essential Transportation Service (LETS) is a county agency that provides on demand bus or what is called a paratransit service to the area. While LETS is available to the public, it is often overbooked. People's Express of Whitmore Lake provides a similar service and is also available to Hamburg residents. Other mass transportation options that are currently available within the Township, although on a very limited basis, are ride-sharing services such as carpooling and private on demand services such as Uber and Lyft.

In March of 2019 the [Livingston County Transit Master Plan](#) was approved. Many of the communities within Livingston County, including Hamburg Township, collaborated in the creation of this plan. The goals of the plan include improving the system efficiency of current service for existing and new customers; developing new services that expand the customer base and respond to unserved needs; providing regional connections; and collaborating across communities, agencies, and sectors to have multimodal transportation considered as part of the county's development. Since the plan was adopted LETS has worked to expand their door-to-door transportation services with additional weekend dial-a-ride service and several new special services, including an agreement with the Hamburg Township Senior Center that launched in July 2019 to provide additional paratransit service to seniors within the Township at a reduced rate. A new healthcare transportation service was launched in October 2019 and is open to the public for medical appointments, pharmacy visits, on-demand emergency department discharges, and other activities that fulfill the mission of improving health and wellness. Also in October 2019, with support from the Township and other communities within Livingston County, LETS entered into an agreement with Michigan Flyer to provide round-trip shuttle service between Livingston County and Detroit Metro Airport from a stop at the Brighton Meijer.

Hamburg Township has one active railroad line. This line bisects the Township at its center from the north and proceeds easterly, from the center, through the Old Hamburg Village, and finally, exits the Township into Green

Oak Township. This line is owned by the State of Michigan and operated by Great Lakes Central Railroad. The rail line is predominantly for freight transit. According to the MDOT, the railroad is utilized by approximately two trains a day, five to six days a week. The tracks merge with what was once the old Grand Trunk Western and Ann Arbor Rail Road lines that have recently been abandoned and converted for use as the Lakelands Trail.

There is an airfield in Hamburg Township, Cackleberry Airport on Strawberry Road, at the southwest corner of the Township. Additional airports are within close proximity to Hamburg Township including the Livingston County Airport, northwest of the City of Howell, Detroit Metropolitan Airport, in the City of Romulus, approximately 25 miles southeast of Hamburg Township, and Willow Run Airport in Van Buren Township, approximately 18 miles southeast of Hamburg Township. Willow Run Airport is primarily a freight airport.

Existing Vehicular Traffic Patterns: Future traffic patterns within the road network will be closely related to land use. Because of this it is important that road development be coordinated with the overall plan for the Township. The most critical corridor is along M-36. Careful consideration of land use planning, zoning and site development along this corridor will ensure a well-coordinated traffic system and land use pattern.

Traffic is influenced by trip generation, route selection and street capacity. Trip generation varies by land use. The type and amount of traffic originating from a household will vary based on the demographic makeup such as household size, age of residents, and number of autos owned. Since many of the residents of Hamburg Township work outside of the community, much of the trips generated within the Township are to destinations outside of the Township.

Existing traffic volumes for roadways throughout Hamburg Township vary, depending upon the location of the segment studied or the date the study was conducted. Over the past 20 years the Township population growth and development activity has slowed. The slowing of population and development growth, reduction in household sizes, aging of the Township's population, increase in the number of people working from home, and increase in access to non-motorized transportation options all contribute to a reduction in actual daily vehicular traffic generated over previous projections for daily traffic volumes for year 2020 within the Township. The most recent traffic counts collected by the LCRC can be found in [Map 7, Existing Traffic Conditions](#). Table 3 summarizes the traffic count data for some of the main arterials that connect Hamburg Township. As you can see in Table 3 the actual vehicular trip counts after 2018 are lower on many of the Township's roadways than the projected vehicular trip counts for 2000 and none of the roadways have surpassed the projected vehicular trip counts for 2020.

Table 3

Traffic Counts prior to 1995 vs Traffic Projection vs Traffic Counts after 2015

Street Locations	Actual Trip Counts Prior to 1995 (LCRC)	Projected counts for 2000*	Actual Trip counts after 2018 (LCRC)	Projected counts for 2020*
Strawberry Lake Road (East of Merrill Road)	3,328 (1994)	4,000	4,650 (2019)	6,600

Merrill Road (North of Strawberry Lake Road)	4,075 (1993)	9,000	7,370 (2019)	13,800
Hamburg Road (South of Strawberry Lake Road)	3,848 (1993)	5,700	4,760 (2018)	7,960
Hamburg Road (North of Winans Lake Road)	2,575 (1987)	5,200	3,610 (2018)	7,500
Winans Lake Road (West of Hamburg Road)	4,205 (1994)	4,100	4,380 (2018)	4,900
Winans Lake Road (East of Hamburg Road)	5,205 (1992)	8,100	10,300 (2018)	11,400
Chilson Road (South of Swarthout Road)	4,851 (1993)	6,000	5,720 (2019)	8,500
Chilson Road (North of Swarthout)	6,934 (1992)	8,800	8,910 (2019)	12,300
Swarthout Road (West of Chilson Road)	5,727(1993)	6,800	7,390 (2019)	12,300
Pettysville Road (South of Swarthout Road)	4,902 (1994)	8,300	6,370 (2019)	10,400
Whitewood Road (South of M-36)	3,549 (1988)	6,100	3,600(2018)	9,700
McGregor Road (South of M-36)	4,169 (1995)	4,900	3,810(2019)	6,200

*2000 and 2020 traffic projections from QRS-11 Traffic Model prepared by McKenna Associates, Inc for prior Master Plan

Hamburg Township, Livingston County, Michigan

1,234 (2019) = 24 Hour Average Daily Traffic (Year)



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Future Transportation

The following section discusses items to be considered when reviewing new roadway, trails and development projects throughout the Township. Consideration of these items will help to reduce possible future transportation congestions and provide multiple modes of transportation in the Township for future residence and employees.

Future Roadway Improvements (widening, intersection improvements, roundabouts, traffic lights, etc.):

It is important to consider existing traffic volumes when considering future development within the township. The Township should work with the MDOT, LCRC, Township citizens and future developers to plan for roadway upgrading, roadway widening, intersection improvements or projection of future capacity.

The Township should work with MDOT to consider widening M-36 at select locations along M-36. This would primarily be done at major intersections and along the commercial segments of the corridor.

In order to preserve the rural character of Hamburg Township, any future road widening of roadways within the Township should balance traffic needs with consideration of natural features. Road improvements should not be designed to address only peak hour traffic conditions alone, but should be sensitive to the 24-hour impacts of traffic in terms of the environment, community character and traffic conditions. Excessive road widening would lead to increased traffic speeds and a more suburbanized appearance. Periodic congestion may be preferred over excessive widening for through traffic. Throughout most of the Township, roads are expected to remain two lanes. The narrower roads, which wind through the hills and lakes of the community, add to the natural rural character of Hamburg Township.

The Township should work with the LCRC to determine if acceleration, deceleration, or passing lanes should be required for new developments along major roadways. These improvements should be considered for developments that will generate moderate to high turn volumes or where there are sight distance limitations. These improvements should be the responsibility of the developer.

Selected intersection improvements should be made at locations, which have experienced higher crash rates than other intersections. Improvements can include turn lanes, sight distance improvements, pavement improvements, signalization or other form of traffic control such as roundabouts.

As an alternative to signalization, the Township should consider other forms of traffic control devices such as roundabouts. MDOT considers these traffic control devices as possible alternatives to signalization, in appropriate situations. While roundabouts are similar to traffic circles, the modern roundabout is designed to allow traffic to flow freely around the circle, with entering vehicles yielding to vehicles already in the circle. Roundabouts are seen as a means to increase roadway capacity while minimizing the need to add lanes. Also, eliminating the need for signalization at roundabouts will help to preserve the rural character of Hamburg Township.

When new developments include private roadways, the Township should consider the standards in the Township Private Road Ordinance. These standards are applicable to local streets that provide access to abutting residential land, and that do not serve higher volumes of through traffic. The private road standards allow for

development of narrower roads with steeper grades and smaller turning radii. These are all intended to minimize the impact of road construction and preserve natural features.

Development of future roads, either within new developments or within existing development but that have not yet been constructed, whether public or private, needs to be well planned to ensure the establishment of a safe and efficient vehicular circulation system. Special attention needs to be given to the planning and design of roads for the following purposes:

- Protect the substantial public investment in the street system.
- Promote and coordinate effective and energy efficient development.
- Promote the orderly development of, and ongoing access to, land.
- Protect community character and minimize environmental impacts.
- Promote safe and efficient travel within the Township.
- Prevent duplication of roads.
- Ensure reasonable, though not always direct, access to properties.
- Ensure roads remain passable in all weather conditions and are adequate to provide safe, year-round access by fire, police and other public and emergency vehicles.
- Ensure roads are improved to properly handle development impacts.

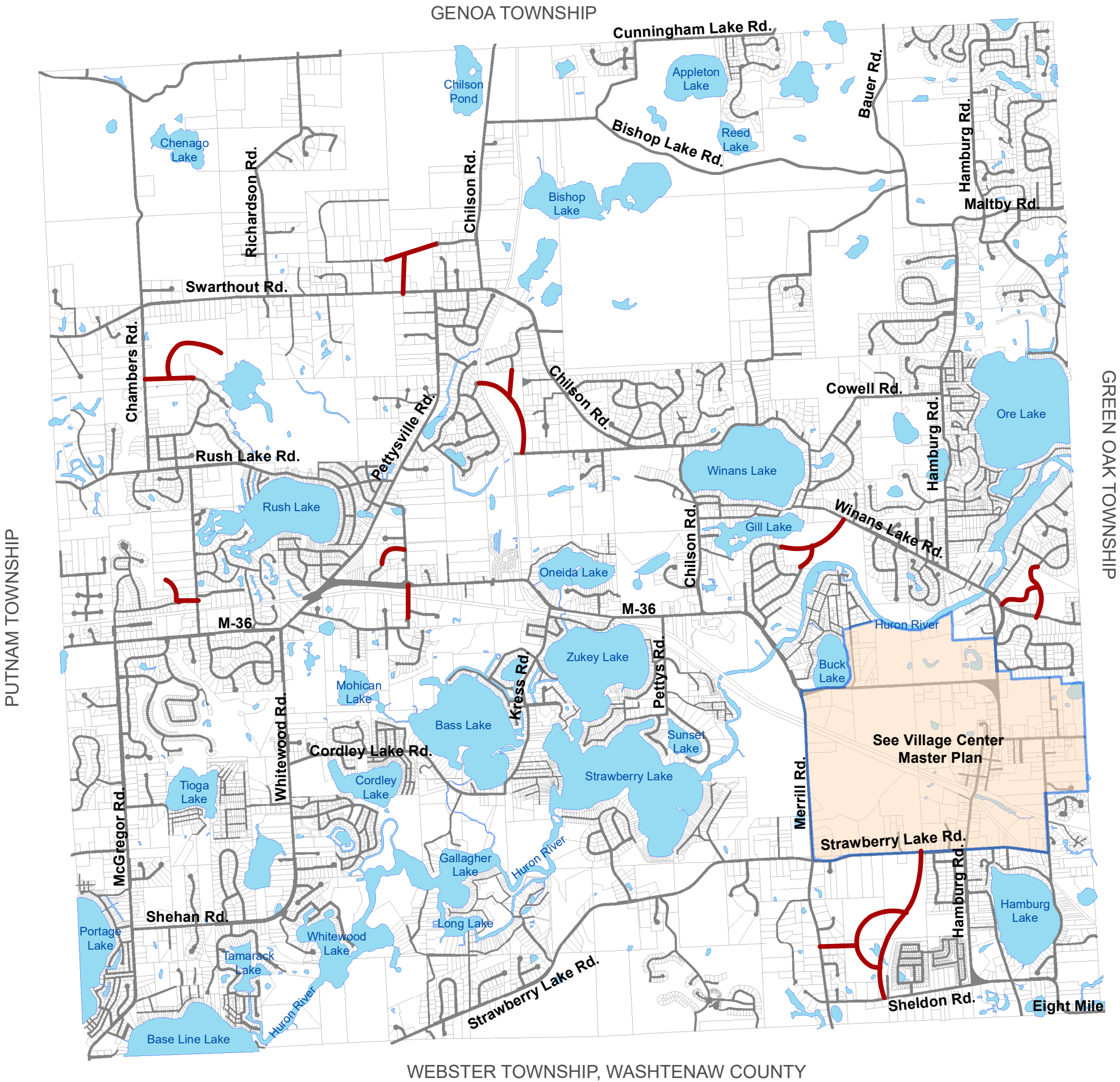
[Map 8, Potential Future Roadway Connections](#) and the [Future Land Use Map](#) in the [Village Center Master Plan](#) both identify potential locations for future road connections. The Township should consider connections of local roads when looking at development projects. Providing road connections between adjacent subdivisions allows for movement between adjacent neighborhoods without the need to access major roads. It also provides an alternative means for residents within the subdivisions to access the major road network at locations that are most efficient for traveling to their destination, shortening trips and thereby minimizing traffic impacts to the major road network. It is important that connections between local streets be designed to discourage use by through traffic that does not have an origin or destination within the local neighborhood.

When the Township received requests to vacate, existing road right-of-ways were roadways have not yet been developed within existing subdivisions and other unplanted areas of the Township, careful consideration should be made to verify the potential vacations will not eliminate the possibilities for future connections to adjacent neighborhoods, other improvements or undeveloped sites.

New development within the Hamburg Village area should consider the transportation recommendations of the [Village Center Master Plan](#). This plan contains a proposed circulation and access system that includes a hierarchical road system that establishes road functions ranging from local access to through arterial. This system defines the roles of each street in terms of operational requirements, which in turn translates into planning, management and physical design features. The location of future access points to M-36 are defined. This road network will reduce the need for direct access to M-36 and help to manage the flow of traffic in this

Map 8 Potential Future Roadway Connections

Hamburg Township,
Livingston County, Michigan



more intensely developed portion of the Township. This plan should be followed as closely as possible when considering the development of new roadways within this area.

It is impossible to apply a general formula to each of the Township's many arterial and collector streets to establish a threshold of maximum expected roadway capacity. The Township should work with the MDOT and the LCRC to evaluate existing conditions and establish an action plan for review of specific traffic management issues. For example, the Township can establish general guidelines as to when an unpaved roadway should be considered for paving; when a paved roadway should be considered for widening; or when other special attention by the Township is warranted.

Complete Street Design: The Township should also work with LCRC and the MDOT to consider construction of complete street designs for any future roadway projects. Complete streets are roadways that are planned, designed and constructed to provide appropriate access to all uses in a manner that promotes safe and efficient movement of people and goods whether by car, truck, transit, assistive device, foot or bicycle (also known as multi-modal transportation). In 2010, Michigan legislation was passed requiring road commissions, MDOT and local units of government to consult with one another regarding transportation projects or plans and to agree on how best to address their respective Complete Streets policies. However, this state law does not give local communities authority or jurisdiction over projects planned or undertaken by transportation agencies. Hamburg Township does not own any roadways. Roadways within the Township are either under the jurisdiction of the Michigan Department of Transportation, the Livingston County Road Commission, or are privately owned and maintained roads.

The concept of complete streets encompasses many approaches to planning, designing, and operating roadways and rights of way with all users in mind to make the transportation network safer and more efficient. Complete streets approaches vary based on community context. They can address many elements, such as sidewalks, bicycle lanes, bus lanes, public transportation stops, crossing opportunities, median islands, accessible pedestrian signals, curb extensions, modified vehicle travel lanes, streetscape, and landscape treatments. Complete streets may reduce motor vehicle-related crashes and pedestrian risk, as well as bicyclist risk when well-designed bicycle-specific infrastructure is included in the street design. They promote walking and bicycling by providing safer places to achieve physical activity through transportation.

Complete streets provide a number of benefits including, but not limited to, improved safety for all uses, improved human health by encouraging walking and biking, decreased vehicular traffic, reduced dependence on gasoline and other petroleum products, and improved air quality. Providing more transportation options fosters more livable communities and improves quality of life for all ages and socio-economic groups in the Township.

Access Management: According to the Federal Highway Administration, access management is the proactive management of vehicular access points to land parcels adjacent to all manner of roadways. Good access management principles promote safe and efficient use of the community transportation network.

Access management includes a set of techniques that local governments can use to control access to each of the roads within their network. Studies show reducing or limiting the number of access points, carefully placing and spacing access points and designing the road and access points to serve all users, can help achieve safer

environments and preserve efficient traffic flow. These techniques are used to improve transportation operations and increase safety while maintaining reasonable access to properties. In some cases, access may be provided through shared or indirect means, but in every case, reasonable access is always maintained. Many of these techniques require cooperation between local, state, and federal agencies, but some can be directly influenced by the local municipality.

Access management can also improve the corridor for bicyclists and pedestrians by reducing and limiting the number of potential conflict points along the corridor. Proper placement and design of access points can help improve visibility of pedestrians and bicyclists and reduce the risk involved in crossing multiple driveways and intersections.

Access spacing can increase distances between traffic signals to improve the flow of traffic on major and minor arterials reducing congestion and improving air quality. Driveway spacing can require fewer driveways by spacing them more adequately apart allowing for more orderly management of traffic and reducing challenges posed by sight distances. By utilizing access management principles, Hamburg Township can provide for expanded traffic control while striving to maintain the rural environment residents have come to enjoy.

Along major arterials, such as M-36, alternative access should be encouraged, such as shared driveways, rear service drives or frontage roads. Commercial developments and parking lots should be connected through front or rear service drives. Frontage drives, rear service drives, shared driveways, and connected parking lots should be used to minimize the number of driveways and access points, while preserving the property owner's right to reasonable access. Certain turning movements should be limited, especially left turns, where safety hazards may be created or traffic flow may be impeded.

Access to Amenities: Access to recreation facilities, municipal services, commercial areas and schools can be difficult for certain segments of the population, primarily children and the elderly, because these amenities are scattered throughout the Township. The municipal services including the Township offices, public library and the senior center are not located near residential areas and due to the size and rural nature of the Township there is considerable distance between these amenities and the location where much of the population currently lives.

Efforts have been made recently to expand the bike paths throughout the Township and improvements to the Lakelands Trail has been completed across the entire Township. The Township should continue to improve the pedestrian and bicycle access to all of these amenities. Improving access to these areas can be increased through a few different avenues such as: creating and adopting complete street policies and working with the LCRC and the MDOT to implement that policy; and working with future developers to provide connections from future developments to the Lakelands Trail, nearby parks, community schools, commercial areas, and other community amenities.

Pedestrian and Bike Trails: As discussed previously the Lakeland Trail is the major non-motorized route east to west through the Township. In addition to this existing 10-foot wide paved trail, many of the existing developed areas (subdivisions) throughout the Township were required to build internal trail systems for the use of the property owners within the development. In the [Village Center Master Plan](#) an eight-foot wide paved multi-use trail is proposed along the south side on M-36 from Merrill Road to Hall Road, along Merrill Road from M-36 to

Strawberry Lake Road, and along Hall Road and Hamburg Road from M-36 to the Lakeland Trail. Additionally the township is working on funding for a future multi-use trail along McGregor Road south of the Lakeland Trail. There are also many miles of existing hiking, biking and equestrian trails within the Pinckney and Brighton Recreation Areas located within Hamburg Township.

As stated under the complete streets and access sections of this chapter additional bike and pedestrian pathways are needed to better connect residential development to Township amenities (parks, municipal services, other trails, and local commercial areas). The Township should develop a pathways plan and a complete streets program to expand the existing network of non-motorized trails in the most logical locations.

Mass Transportation: Mass transit is simply defined as public transportation. This can include buses, commuter trains, car and vanpool services, and taxis/ride sharing services. The use of mass transit benefits residents by alleviating traffic congestion, reducing the impacts of the roadways, saving household income that would otherwise be used for transportation costs, providing transportation options for citizen that cannot drive, such as younger citizens and the elderly, and improving community health by the reduction of pollutants that are by-products of automobiles. Mass transit also help business attract and retain a more reliable workforce.

As stated previously the mass transit options in Hamburg Township include LETS (Livingston Essential Transportation Services), semi-private transportation options such as Peoples Express, the Michigan Flyer Airport Shuttle (in Brighton) and private transportation options in the form of ride sharing services such as Uber or Lyft.

To better provide for the aging population within the Township, to create a more accessible community for young families and businesses and to help the community grow into the future the Township should continue to work with surrounding communities to expand mass transportation options in the area.

Emerging Technologies in Transportation: Some trends in the emerging technologies in the transportation field are closer to wide scale use than others. For example, the use of ride-sharing services is becoming more prevalent. Also the use of smart transportation technologies to manage traffic like the addition of the auxiliary lane on Highway US-23 or traffic mapping applications on smart devices help to disperse traffic volumes at peak traffic times. Other emerging trend that may impact transportation within the Township are clean vehicles; autonomous (driverless) vehicles; car, scooter and bike share services; and smart transportation technologies that will allow better synchronized transportation options which will allow the users better connectivity. These smart technologies could be as simple as providing better interfaces to allow the public easier access and knowledge of different transportation options or they could be more complex like driverless rail trail services.

Summary: As the Township's population continues to both grow and age it is likely that there will be a greater need for more transportation options and services. The citizens also continue to want quick undisrupted transportation routes through the Township. The [Livingston County Transit Master Plan](#) creates goals and objectives for the county to provide better transportation service to the area. The Township should work together with the county to provide the best transportation options for the community.

The M-36 Corridor

The M-36 corridor is the main transportation corridor through Hamburg Township and acts as the gateway to the Township for many citizens and visitors that travel through and to the Township. The limited crossings of the Huron River and the natural features within the Township have led to a road system that funnels most of the longer distance travel to M-36. Because of this the M-36 corridor is vital to the transportation network through the Township.

This section provides for continued development along M-36 while preserving the rural character of the surrounding neighborhoods, the existing landscaping and the natural features viewed along M-36. This should be done by maintaining well-defined nodes of clustered commercial development and by promoting improved site design for new development and redevelopment of existing sites. This section also identifies means for accommodating increased traffic volumes through selective transportation improvements to the M-36 corridor.

Streetscape: There are two general types of streetscapes located along the M-36 corridor. Existing commercial development centers and natural, rural environments. The commercial developments are in several locations along the corridor and the natural rural environments are located between these commercial centers. The commercial center areas should provide well-defined commercial nodes that serve the surrounding neighborhoods and motorists on M-36. The natural rural environments should be preserved when possible by allowing lower intensity development in these areas that maintains or enhances the natural quality of the areas.

The M-36 corridor should not be "suburbanized" with excessive clearing of natural vegetation, deep building setbacks and large front parking lots. Development patterns need to be sensitive and complimentary to the overall character of the Township. Low-to-medium density single-family residential development should be maintained in areas identified as important because of their open rural character. Future commercial and office development along the corridor should be directed towards areas where transportation improvements can be made to support the uses.

Improvements: Increases in traffic volumes should be accommodated through selective widening of M-36, intersection improvements, installation of traffic signals, use of deceleration lanes and construction of indirect access systems. Select road widening should be made at commercial nodes as the corridor develops. In noncommercial areas, M-36 should remain a two-lane roadway. To preserve the rural character of Hamburg Township, any future road widening should balance traffic needs with consideration of natural features.

Working with MDOT on a complete streets plan for the M-36 corridor will provide for multiple modes of transportation and increasing the public transportation options within the Township. It will also help to alleviate traffic congestion along this corridor into the future.

Site Design: The Township should encourage the neo-traditional village concept where appropriate in commercial areas with mixed-use development, reduced setbacks, parking at the side or rear and a more pedestrian oriented streetscape. In areas where the wide-open rural character is identified as a critical community asset, buildings should be located in the background so that the natural features remain the dominant

feature of the streetscape. Buildings on these sites should fit into the natural topography and preserve an undisturbed natural vegetative buffer along M-36.

To prevent Hamburg Township from developing a suburbanized character, parking lots should be discouraged in the front of buildings. Parking should be encouraged within the side yards or rear yard of the site. Impervious surface (i.e. pavement) coverage should be minimized by limiting the size of parking lots in order to maintain natural open space and minimize drainage problems.

Signage: Signs are another feature which have a major impact on the character of the streetscape. To have signs as an integral part of the character of M-36, they should be located in relation to buildings, landscaping, natural features and other signs. Consolidation of signs at shopping centers should be encouraged. Ground signs should be required in place of pylon signs for all new development. Sign materials and color should complement the building materials. Sign designs should be required as part of site plan review.

Landscaping: Landscaping is also an integral part of the natural character of the M-36 corridor. The existing landscaping and natural features should be preserved along the M-36 right-of-way. Important views along the corridor should be preserved through building location, orientation and other site plan standards. When development is proposed it should maximize the amount of green space through street trees and plantings, landscape parking lot setbacks, providing trees within parking lots, and discouraging large and uninterrupted pavement areas. Landscaping should blend in with the natural setting of the Township by utilizing similar plant species.

Open Space: An open space network should be created along the corridor and throughout the whole Township. Non-motorized paths should be required with all new development or redevelopment of existing sites along the M-36 corridor. The Lakeland Trail should be combined with other bike paths to interconnect the open space areas along the M-36 corridor. These paths should also be linked with other areas of the Township, and areas in adjacent communities, as part of a comprehensive open space network.

Building Design: New buildings should be designed to preserve or complement the character of existing development and blend harmoniously into the streetscape. The overall appearance should be "timeless". The intent of "timeless" architecture is style and quality, which continues to be admired and copied in any era. Timeless architecture commonly includes features such as brick, peaked roofs, accent features and windows. Brick facades with traditional windows are preferred for most commercial buildings.

Access Management: Access management involves reducing traffic conflicts (i.e. potential for crashes) and preserving through traffic flow using a variety of measures. The number of access points to M-36 should be managed through best management practices. Alternative means of vehicular access should be encouraged; deceleration tapers and left turn bypass lanes should be used to convey traffic turning movements.

Goals and Objectives

The following section will list some of the more important goals and objectives of the Transportation section followed by possible implementation measures to reach these goals.

TRANSPORTATION GOALS AND OBJECTIVES

Goal 5: Promote safe and efficient travel within the Township.

Objective A: Encourage maintenance and repair of existing transportation routes, including roadways, trails and transit.

Objective B: Provide and promote a vehicular and non-motorized transportation network that is a vital component of a high quality community environment for people who live, work, shop and recreate in Hamburg Township.

Objective C: Encourage vehicular and non-motorized connections between neighboring development and from developments to recreation facilities, commercial businesses, Township services and buildings and the school buildings.

Objective D: Manage growth by encouraging and promoting future development in areas with adequate transportation networks.

Objective E: Encourage developments to provide alternative transportation opportunities for their communities.

Objective F: Promote complete streets.

Objective G: Utilize best access management practices.

Goal 6: Accommodate increases in traffic volumes or implement measures to reduce traffic volumes on roadways where needed.

Objective A: Provide for higher traffic volumes through selected widening of M-36, intersection or traffic signal improvements, access management, preservation of select right-of-way and construction of indirect access systems.

Objective B: Utilize best access management practices.

Objective C: Encourage public transportation and multi-modal transportation options to reduce traffic on heavily used roadways such as M-36.

Goal 7: Preserve the rural appearance of the Township as viewed from the roadways when appropriate.

Objective A: Preserve the existing natural features along Township roadways including M-36 when possible.

Objective B: Development should be situated away from the main thoroughfares to protect key view sheds and to retain an appearance of low intensity development.

Objective C: Commercial development shall be contained at the Village Center area and key commercial nodes along M-36.

Objective D: Except in the Village Center area and other commercial corridors, existing landscaping and natural features viewed along M-36 should be preserved; development should be situated away from the roadway and key view sheds should be protected.

CHAPTER 4- Natural Features

Overview

This chapter identifies the existing environmental and natural features within the Township and explores opportunities and strategies to preserve, protect and enhance these features.

How we interact with the natural environment is critical in how the community develops. The geology, topography, soils, water resources, woodlands, fish and wildlife, and scenic features, along with other natural features change and interact as part of a community's ecosystem. We must protect the natural environment while still allowing the community to grow in a controlled manner. Development must be directed to areas that are suitable for growth while still integrating the projects into the natural and physical fabric of the community.

Existing Conditions

Hamburg Township is blessed with an abundance of natural resources including water features, sandy soils, woodlands, and rolling topography. These features make an important contribution to the quality of life in the Township. In terms of development, these features provide both constraints and opportunities. Thus, the natural features have a significant influence on the future land use pattern for the Township, in conjunction with other factors such as existing land use, infrastructure, market factors, transportation, and community regulations.



In Hamburg Township, these natural resource factors create limitations on the type and extent of future development that can occur in certain areas. These areas include, but are not limited to areas that are unsuitable for septic systems, unstable for building foundations, poorly drained, and susceptible to flooding. While these factors place restrictions upon development, other natural resource factors present opportunities for development. The scenic and recreational attractiveness of the lakes, hills and woodlands offer a unique residential setting. It is helpful to examine these natural resource factors in detail to determine both the opportunities and constraints. The examination involves an inventory of resource factors, and a determination of the capability of the natural resource base to support future development.

The following is a brief overview of some of the major natural features that are prevalent throughout the Township. As development occurs, the following features should be considered in addition to other site-specific conditions that may be pertinent to each individual location.

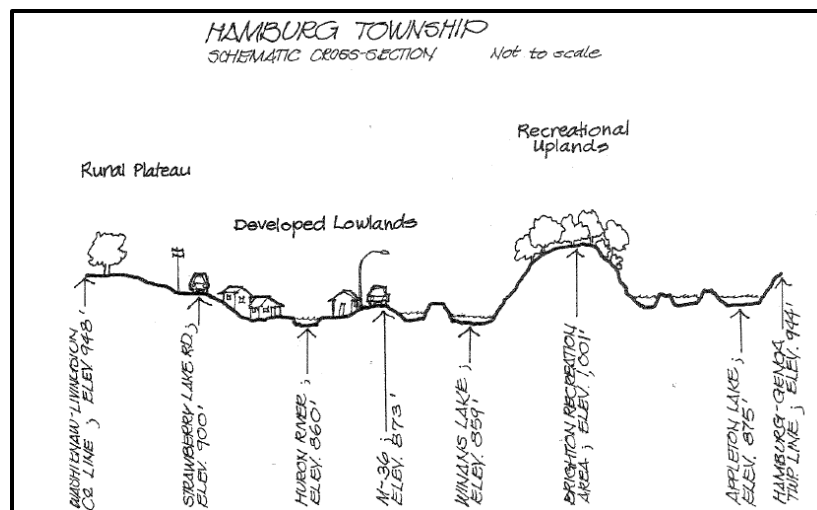
Geology: The soils and geology in the Township are characteristic of glacially formed landscapes consisting mainly of moraines (glacially deposited sands and gravel) and till plains. The underlying bedrock is a gray shale known as the Coldwater Formation. The surface geology of the Township was formed 10,000 to 12,000 years

ago when glacial activity deposited rock, soil, and large blocks of ice. The glacial drift is a very thick layer of soil material that has been deposited by the advancement and retreat of the Wisconsin glacier during the last ice age. The ice blocks embedded within the soil eventually melted and left depressions, which are today's lakes. These lakes were connected by an outwash channel, which is now the Huron River and chain of lakes system.

Since the last ice age, the soils on Hamburg Township have formed as a result of a number of soil forming factors. These include water drainage, wind, slopes, climate, biological activity, and human activity.

Topography/Slope: The topographic features of the area and the relative elevations of the Huron River, chain of lakes, and the upland moraines to the north and south are depicted in Figure 1, which illustrates a typical cross-section through the Township. Most of the residential development within the Township is located within the lower elevations. There is limited development at the higher elevations to the north and to the south of the river corridor. These uplands have become an attraction for development because of the unique contrast to the flat terrain of southeastern Michigan.

Figure 1



Slope is an important development consideration associated with topographic features. Areas of extreme slope have been included in the development suitability map so that opportunities and constraints for potential development can be identified. There are three common slope problems:

- Mechanical cut and fill, where slopes are reshaped and in some locations steepened, results in a significant change in the natural functions of the hillside.
- Deforestation from past agricultural operations, and now by development, causes both a weakening of the slope and increased surface runoff rates.
- Improper location of structures on slopes causes changes to vegetation, slopes, and drainage patterns.

There are two major areas of extreme slope. These are the areas north of Winans Lake and the area west of the

Chilson Impoundment. The remainder of the Township is generally flat to gently rolling with isolated areas of severe or moderate slope. Steep slopes will require sensitive site planning prior to development. Care should be taken to ensure that extensive grading is minimized and to ensure that natural features such as vegetation and top soil are protected.

Above the floodplains and wetlands that line the Huron River and the other drainage ways of the Township, there are steep banks or bluffs, which separate the lowland and the upland. These will generally have steep slopes and be heavily vegetated. Disruption of the vegetative cover on these bluff areas may cause significant erosion problems and effect stream ecology.

Soils: In order to minimize construction costs and risks to the environment, it is desirable for future development to be constructed upon sites with suitable soils. Poor soils present problems such as poor foundation stability and septic field failure. The three major soil characteristics considered in the analysis of soil conditions are drainage, foundation stability, and septic suitability characteristics. Each of these factors have been inventoried and mapped by the Livingston County Soil Survey, prepared by the Soil Conservation Service. ([See Map 9, General Soil Survey](#)).

- **Drainage:** Soil drainage characteristics are examined because of the potentially high development costs, maintenance costs and sanitary problems encountered on poorly drained soils. These costs and problems are often associated with septic field failures, flooded basements, and susceptibility to frost action. Dense mucks, silts, and clays with high water tables are the soils most often associated with drainage problems.

In general, poorly drained lands lie within the floodplains of the Huron River and chain of lakes. Other areas include lands associated with Hay, Chilson, South Ore and Horseshoe Creeks and the numerous small ponds or depressions throughout the Township. Moderately drained and well-drained soils consist of loamy sands, which allow the passage of water from surface layers to lower soil depths. These areas are sufficiently above the groundwater table to assist drainage and provide a suitable foundation for construction.

- **Foundation Stability:** Shifting foundations, cracked walls, and cracked pavement and roadways are some of the potential problems associated with foundation instability. These problems often result in increased development and maintenance costs or, in extreme cases, structural failure.

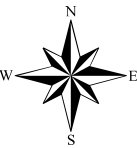
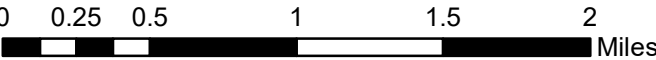
Generally, well-drained, coarse-textured soils provide the most suitable foundations. Soils with good or fair stability are located in the upland sections of the Township. Poor soil stability occurs with soils containing large concentrations of organic material, such as muck, silt and clay. The areas of poor soil stability are concentrated in the low lying and poorly drained areas adjacent to lakes and creeks. In those low-lying areas, the presence of water in and near the surface contributes to frost heave, compression, shrinkage and swelling.

Map 9 General Soil Survey

Hamburg Township,
Livingston County, Michigan

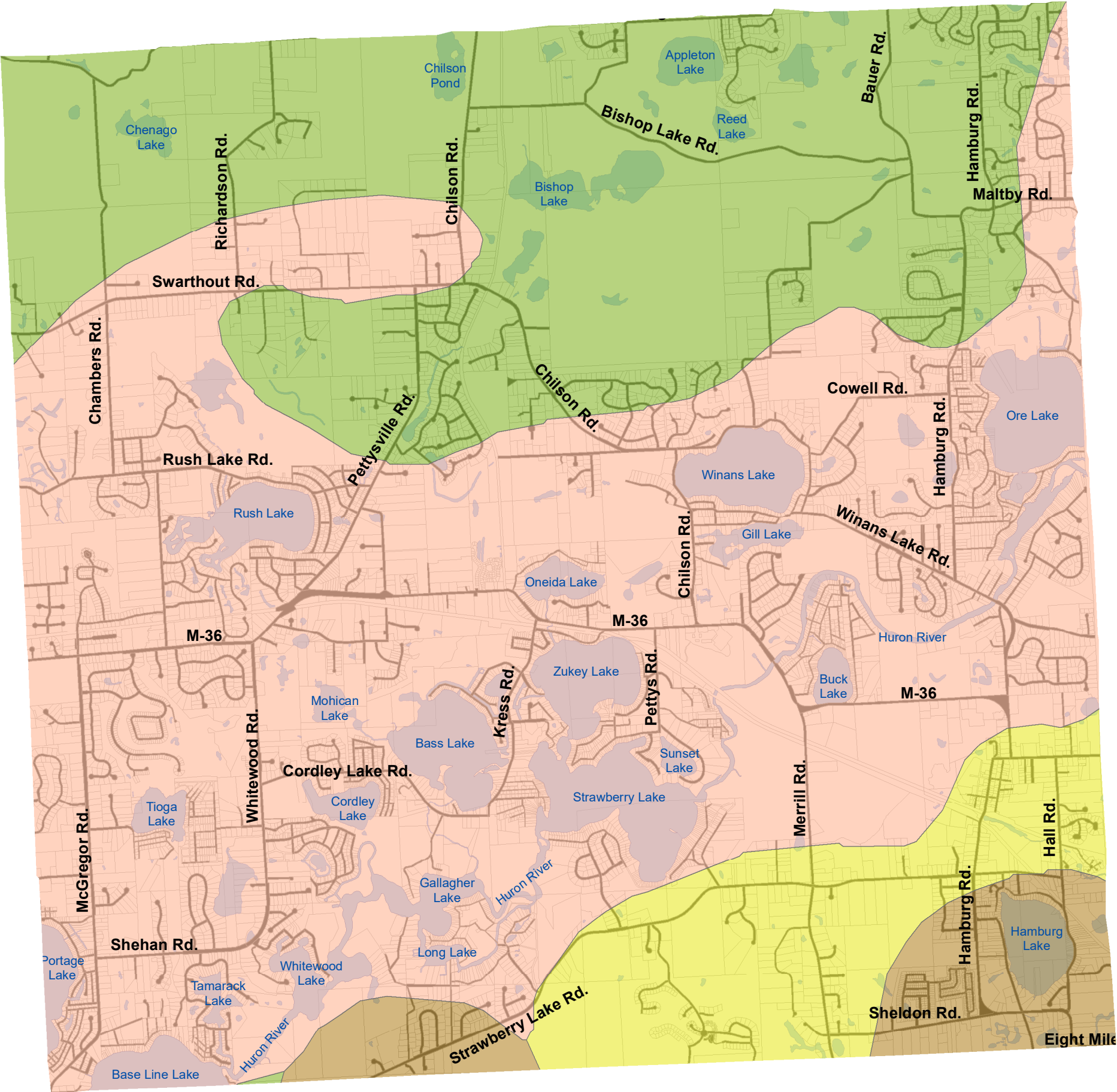
- Wasepi-Fox-Boyer Association
- Spinks-Oshtemo-Houghton-Fox-Boyer Association
- Miami-Conover-Brookston Association
- Morley-Blount Association

Sources:
Hamburg Township, 2020
Natural Resources Conservation Service, United States
Department of Agriculture. Web Soil Survey.



08/2020

PUTNAM TOWNSHIP



GENOA TOWNSHIP

GREEN OAK TOWNSHIP

WEBSTER TOWNSHIP, WASHTENAW COUNTY

- **Septic Suitability:** Because many of the residential dwellings within Hamburg Township are served by individual septic systems, the location of septic systems on proper soils is extremely important. Inspection and approval for use of a septic system is Livingston County Health Department's jurisdiction and through their Sanitary Code permit, inspect, and correct known failures. Septic system failures are often the result of poor soil permeability, high water table or excessive slope, lack of proper maintenance (periodic pumping of the tank), and water use in the home. Soils such as compacted clays and silts will not allow wastewater to percolate through the filtering layers of soil. A high water table prohibits adequate filtering thereby allowing the sewage effluent to pollute the groundwater supplies and contaminate residential wells, lakes, and streams. Finally, the Livingston County Health Department, through conformance with their Sanitary Code considers soil type, water table, and slope to determine system-citing suitability.

Areas of slight septic suitability are scattered throughout the Township, but are predominantly in upland areas. Important areas of suitable soils are located near the Village of Hamburg, southeast of Winans Lake, and along the western portions of M-36.

- **Soil Series:** According to the United States Department of Agriculture, Web Soils Survey, the three most abundant soil series within Hamburg Township, located in the upland areas, are Boyer-Oshtemo, Fox, and Miami. Many of the low-lying, wet areas along lakes and rivers contain alluvial materials such as Carlisle and Houghton mucks. Other soils found within the Township are the Bronson, Gilford, and Oakville.

While the Boyer series is found throughout the Township, it is most abundant in the southern portion near the lakes. The Fox series is found throughout the Township, but is most abundant in the western portion of the Township. The Boyer series are well-drained loamy sands and the Fox series are well-drained sandy loams. Both are found at slopes ranging from 0-25 percent. Both soil series have moderate permeability and are good for a variety of uses. The major limitation of these soils for construction are areas where the slope exceeds 12 percent. For instance, removal of the vegetation which cover these steep hillsides may cause severe erosion problems. These soils do have some limitations for septic fields, as their sandy texture is a poor filter.

The Miami series is predominant throughout the eastern portion of the Township around Old Hamburg. These soils are well-drained clay loams found at slopes ranging from 0-25 percent. The Miami series have moderate permeability and have only slight or moderate limitations for most uses. The major limitation of these soils for construction is where their slope exceeds 12 percent. Similar to the Boyer and Fox series, areas of steep slope should be protected from disturbance to avoid severe erosion problems. Because these soils percolate slowly, they do have some significant limitations for septic fields.

Carlisle mucks and Houghton mucks are both found along the drainage ways of the Township, particularly in low-lying areas adjacent to the Huron River and the lakes. These soils are nearly level, very poorly drained soils. They contain high levels of organic matter, which are easily compressible under the weight of construction and decay when dried out. These mucks can be used for agriculture, but have severe

limitations due to wetness and low strength for any other uses. These soils are generally associated with wetlands and floodplains.

Other soils encountered in the Township are the Bronson, Gilford, and Oakville series. Bronson is a level, poorly drained loamy sand. Gilford is a very poorly drained sandy loam found in low areas. Both these soils are not well suited for construction due to poor drainage and wetness. Oakville is a well-drained fine sandy loam. These soils are well suited for construction.

Water Resources: Groundwater and surface water deposits are a vital resource within Hamburg Township. Because there is a limited area within the Township that is served by a central water distribution system, most of the residents must rely upon individual wells for their water supply. Lakes and streams of the Township are also an important resource for their scenic and recreational value. These water resources should continue to be protected and managed to ensure their quality and availability for future use.

- **Drainage:** Upland areas drain to the low-lying wetlands, lakes and streams that pass through the Township. Soil permeability of most upland areas are moderate to moderately rapid. As these areas become developed, the amount of water infiltrating the surface will decrease and the surface runoff will increase. This will be caused by clearing of natural vegetation, addition of impervious material to the land (buildings and pavement), and installation of storm drains. These will have the cumulative effect of increasing the peak discharge in the area rivers and streams while reducing the amount of water infiltrating to ground water. Minimization of these impacts may involve protecting native vegetation, increasing green infrastructure regulations, on-site stormwater retention, and clustered development.

Groundwater: Important factors in the evaluation of groundwater are the quantity and quality of the water. The Livingston county health department requires that residential properties have wells that produce a minimum of 10 gallons per minute. The average estimated yield from wells within Hamburg Township is around 30 gallons per minute. However, this figure will vary upon the location within the Township and there have been a few instances where adequate water could not be provided. More water appears to be available within the outwash channels of the central lowlands than the upland moraines.

The Livingston County Health Department evaluates every well construction site and determines if restrictions are required based on the potential risk due to contamination sources in the area. The restrictions may require the well to be drilled to a certain depth or require the well be placed a distance from a potential source of contamination, such as a sewer line, septic system, or historical contamination site. Water quality concerns in the township include aesthetic issues including elevated hardness and iron. Naturally occurring arsenic is also found in wells in the township. LCHD requires that wells that test over the drinking water standard of 10 parts per billion install treatment devices to reduce the arsenic. The wells in the township vary in depth and may be constructed the sand and gravel deposits or into the underlying bedrock.

- **Surface Water:** Connected by the Huron River are the chain of lakes, which pass through the Township and are among the most valuable natural resources of the community. In combination, the river, lakes, and rolling hills create picturesque views. The numerous lakes and Huron River provide a number of recreational opportunities such as boating, fishing, and swimming. The quality of these water features

enhance the value of adjacent property for residential opportunities. The Huron River provides vital functions to the region for drainage and water supply, fish and wildlife habitat, industry and recreation.

The Huron River passes diagonally through the Township from the northeast to the southwest. This valuable regional resource, which has its headwaters in Oakland County, flows southwesterly through Hamburg Township, towards Ann Arbor, and then discharges to Lake Erie. A vast number of communities are linked by this river in Oakland, Livingston, Washtenaw, Wayne and Monroe Counties. This river provides vital functions to the region for drainage and water supply, fish and wildlife habitat, industry and recreation. Development of the Township should maintain or enhance this resource.

The inland lakes and Huron River corridor are unique because of their residential attractiveness and scenic amenities. Because of these attributes and the desire of residents for access to these water resources, the relationship between man and the environment becomes extremely important. Water pollution is a major concern, which if created would jeopardizes the residential and recreational setting of the Township.

Permits are required for activities including dredging, filling, constructing or placing a structure on bottomlands, constructing, reconfiguring, or expanding a marina, interfering with natural flow of water or connecting a ditch or canal to an inland lake or stream through the State of Michigan Department of Environment, Great Lakes, and Energy (EGLE), under the authority of Part 301, Inland Lakes and Streams, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The program oversees EGLE also administers the federal permit program which regulates the dredging or filling of inland lakes and streams under Section 404 of the Clean Water Act (except in coastal areas where the United States Army Corps of Engineers retains this authority).

Many government and quasi-governmental agencies are monitoring the water quality of the lakes and rivers within the Township. Many of these agencies have prepared reports on the chemical makeup, temperature, clarity and biodiversity of these lakes and rivers. Some of these agencies include, but are not limited to, Army Corp of Engineering: Federal Emergency Management Agency: Michigan Department of Environment, Great Lakes, and Energy, SEMCOG, the Huron River Watershed Council (HRWC); and the Portage, Base, Whitewood Owners Association and other lake associations.

The Huron River area in Hamburg Township has been designated as a "country-scenic" river under the [Michigan Natural River Act 1970](#). The adoption of a Natural River District by the Township in 1978 provides for the management of the river corridor, which will help protect water quality and aesthetic appeal in the future.

In addition to the Huron River, many streams and creeks contribute to the river, as well as interconnect the many lakes. There are three major streams in the Township that flow from the north down to the Huron River. These major creeks are the Hay, Chilson, South Ore and Horseshoe Creeks. Associated with the creeks is a corridor of adjacent wetlands. The creeks and wetlands are important for surface drainage, groundwater recharge and wildlife habitat.

Proper land management can improve the current water quality conditions of Hamburg Township. Sources of pollution can be controlled through drainage and runoff controls, septic field corrections, proper treatment of sanitary wastes, land use planning, limitation of fertilizer applications, and action by lake associations or residents. Alteration of the creeks and wetlands can contribute to flooding, poor water quality, insufficient water supply and loss of valuable wildlife habitat. Protecting the quality of the many lakes and streams of the Township, while providing the opportunity for the community to grow, will require land use planning and engineering that considers key components of these water features.

- **Wetlands:** Wetlands play a very important part in the hydrological and ecological systems. In addition to providing fish and wildlife habitat, wetlands also maintain and stabilize groundwater supplies, reduce the dangers of flooding, and improve water quality.

Any wetlands which are greater than five acres in size or within 500 feet of a lake, stream, or pond are regulated by the Michigan Department of EGLE through the Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 Public Act 451, as amended. Any activity that requires that these regulated wetlands be filled, dredged, or drained, requires a permit from the Michigan Department of EGLE. Permits will generally not be granted unless the issuance is in the public interest and necessary to realize the benefits derived from the activity. If a wetland fill permit is granted, then mitigation should be required such as creating new wetlands within the same drainage way or enhancement of existing wetlands.

Major wetland complexes associated with the lakes, streams and floodplains are found throughout Hamburg Township. The largest wetlands are located adjacent to the Huron River and chain of lakes. The areas north of Bass Lake and near Chilson Creek comprise some of the larger wetlands within the Township. Other areas are found along Hay Creek, South Ore Creek, and the numerous kettle depressions scattered throughout the Township.

Wetlands serve a variety of important functions, which not only benefit the natural environment, but also the community. Wetland areas help to mitigate flooding by detaining surface runoff, control soil erosion and sedimentation loading in rivers and lakes interlinked with groundwater; improve water quality; and provide highly productive ecosystems in terms of wildlife habitat and vegetation.

Future development in areas surrounding these wetlands could impact wetland resources. When development is proposed near wetlands a viable alternative should be evaluated to avoid any negative impact to the wetlands. This is done by considering wetland resources as constraints to development. The cost of avoidance of these wetlands should also be considered when considering future development.

Wetland areas also can provide natural buffers between residential and commercial land uses and contribute significantly to the aesthetic character of the community. Many wetlands are located in low areas adjacent to lakes and rivers. Since these wetlands are undevelopable, the open areas should remain natural. These open areas will help maintain picturesque views of the lakes. Wetland regulation has prevented recent development of many major wetland complexes within the Township. By

incorporating wetlands as part of the future development of the community, they will continue to maintain open and green space as well as contribute to a more rural setting. Wetlands areas as identified by the National Wetlands Inventory and the Michigan Resource Inventory System within the Township are shown on [Map 10, Lakes, Wetlands and Floodplain](#).

- **Floodplains:** A floodplain is the land area adjacent to a watercourse that is subject to flooding. The designation of floodplains and the restriction of their development is a measure designed to protect life, health and property. Federal, state and local laws regulate encroachment, dredging and filling within floodplain areas. The 2008 FEMA floodplain and floodway areas within the Township are shown on [Map 10, Lakes, Wetlands and Floodplain](#).

Floodplain permits are required for project that occupy, fill or grade lands within a floodplain through the State of Michigan Department of Environment, Great Lakes and Energy (EGLE) under the provisions of Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The purpose of this permit is to assure that channels and floodways are not inhabited and that the capacity of the floodway is not unduly restricted.

Floodplains perform important hydrological, geological, ecological, and environmental functions including but not limited to, flood conveyance, storage of floodwater, reduction of peak flow during flood events, groundwater recharge, support of riparian vegetation and wildlife habitat, filtration of storm water through vegetation to remove sediment, absorption of excess nutrients from water into soil and plants, transportation and deposition of nutrients and plant materials, and biological treatment of other pollutants.

Floodplains associated with the Huron River and the drainage courses that cross Hamburg Township are vital to the ecosystem of these low-lying areas. Periodic flooding of these drainage ways is critical to the types of vegetation and animal species that live here. Floodplains also contain water during periods of high stream levels. Any alteration to the physical size of the floodplain will disrupt the drainage flow during high water periods and potentially cause increased flooding elsewhere. Future development in the floodplain should be cautiously considered, as there are risks to property, structures, and lives in the event of a high water event.

Woodlands: A significant portion of the total land area of the Township is wooded. Much of this area is adjacent to the inland lakes or wetlands. Water tolerant species such as ash, silver maple, cottonwood, tamarack, willow, and sycamore are typically found where natural vegetation meets the water's edge. Future development should be planned in a manner protecting unique woodlands.

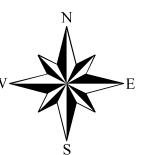
Hamburg Township trees and woodlands substantially contribute to the economic and mental well-being of Township residents. The abundant woodlands and trees help create the peaceful, rural atmosphere that makes Hamburg Township a very special place to live. Trees provide a visual barrier between individual properties and neighboring properties, an essential factor for preserving the rural atmosphere and property values.

Woodlands provide the following community benefits: influence on microclimate, reduction in air pollution, reduction in soil erosion, and provide valuable wildlife habitat.

**Hamburg Township,
Livingston County, Michigan**

- Lakes, Rivers & Streams
- 100-Year Floodplain (2008)
- Wetlands

0 0.25 0.5 1 1.5 2 Miles



This map of Genoa Township displays a network of roads and water features. Major roads include M-36, which runs horizontally across the center, and several vertical roads such as McGregor Rd., Whitewood Rd., Kress Rd., Pettys Rd., Merrill Rd., and Hall Rd. Other roads shown are Swarthout Rd., Rush Lake Rd., Shehan Rd., Strawberry Lake Rd., Chilson Rd., Cowell Rd., Maltby Rd., and Hamburg Rd. The water bodies are color-coded: blue for larger lakes and reservoirs, and green for smaller ponds and wetlands. Notable water features include Chilson Impoundment, Appleton Lake, Murray Lake, Reed Lake, Walker Lake, Bishop Lake, Long Lake, Caroga Lake, Chenango Lake, Rush Lake, Winans Lake, Gill Lake, Oneida Lake, Zukey Lake, Bass Lake, Sunset Lake, Strawberry Lake, Gallagher Lake, Long Lake, Tamarack Lake, Base Line Lake, Portage Lake, Half Moon Lake, Mohican Lake, Cordley Lake, Whitewood Lakes, Buck Lake, Wolf Lake, Haynor Lake, Ore Lake, and Hamburg Lake. The Huron River is shown flowing through the eastern part of the township. The map also includes a legend in the top right corner with a blue square symbol.

There is a significant amount of mature vegetation along many of the road corridors that pass through the Township. Woodlands located near the roadway contribute to a natural/rural atmosphere in a number of ways. The impact of vegetation on the motorist will be greater because of the close proximity to the roadway. A greater mass of vegetation will be within the forward view of the motorist. Other features such as buildings will have a less dominant impact on the streetscape because they fall behind the vegetative foreground. Taller trees will provide a sense of enclosure, providing a very define space bounded by vegetation. There is also a significant amount of vegetation along most lakes and streams throughout the area.

Fish and Wildlife: The continued existence of fish and wildlife depends upon the maintenance of adequate habitat. While some species can adopt to the pressures of urbanization, others cannot live in close proximity to humans. Fish and wildlife habitat are areas which provide food, cover, and corridors for movement. For example, the wetlands in Hamburg Township are essential as habitat and as a food source for the abundant fishery of the Huron River and the various lakes of the Township. As wetland vegetation dies back each season, it breaks down into particles called detritus, which is eaten by insects as well as birds and small mammals. Insects, in turn, are eaten by the fish. The shallow, sheltered wetlands connected with the Huron River and the various lakes of the Township also provide protected spawning and nursery areas for fish.

It is important to provide areas of sufficient size to be useful to wildlife through either protection of existing habitat or creating new habitat. Reasonably continuous corridors must be provided for adequate movement of wildlife and plant seeds between isolated areas. The township trail systems and open spaces areas should be used to provide these corridors. The inland lakes are good for fishing. Bass, pike, and bluegill are the primary species, while an occasional walleye is caught in the Huron River. Wetlands adjacent to lakes are used as spawning areas for bass and pike. Populations of Canadian geese, ducks, songbirds, muskrat, mink, and raccoon are also dependent upon these wetlands. Fox, squirrel, woodchuck, rabbit and deer are the predominant mammals and are actively hunted within state lands in the Brighton State Recreation Area and other private lands. The valuable habitats for fish and wildlife within the Township should be preserved to the best extent possible while still allowing adequate development of the land.

- **The Michigan Natural Features Inventory:** This inventory is maintained by the MDNR as a service to citizens and local officials. Plants and animals which are (or are potentially) threatened or endangered are listed on the inventories. The inventory is not a definitive statement about the presence, absence or condition of environmental features, since many of the sites listed have not been completely surveyed. Unfortunately, some features present in the past may have already been destroyed by human factors and development.

Plant and animal species that are endangered, threatened or of special concern in Hamburg Township lands and waters are noted on by section number in [Appendix F](#). If developments are proposed on or near these areas the presence and importance of the plant or animal should be reviewed. For extremely rare or endangered species, a permit may be needed from the MDNR. It is important to note that threatened and endangered species may have special value when located in a protected area or woodland. It may be the presence of woodlands, which protect the species and provide habitat.

Scenic Features: The lakes, topography, vegetation and cultural resources are components in the overall scenic attractiveness of the Township. Scenic vistas are places which afford expansive views of Township visual resources. These are located on top of hills and high elevations (north of Winans Lake) or along roadways (M-36 and other local roads). Roadways are important visual corridors because they unfold a rapid sequence of vistas. Lakes, trees, fields, homes, commercial enterprises and signs are common sites that are presented to the roadside viewer. Like other rural/urban areas, the organization of the vistas is based upon the roadway. Homes, retail centers and other activities are located off these roads and too often, the viewer is presented with a multitude of messages, signs, and symbols, which are often associated with a strip development. Too many signs and establishments lacking a sense of organization and purposeful design can become an offensive strip development. It is important that future planning efforts recognize the overall image or impression presented along roadways and avoid potentially offensive developments, particularly along M-36. There are a number of areas of the Township that have view characteristics of a rural/open space community. These are topographically high or open agricultural areas. These areas provide a wide panoramic view of the surrounding hills and are characteristic of an open, rural agricultural area overlooking many of the lakes and adjacent hills.

Landmarks are important visual resources. St. Stephen's Church, historical structures, Village Center, the Huron River and other waterbodies are visual landmarks, which lend an important character and identity to the Township. The cultural or man built landmarks should be preserved and managed in a sensitive manner. New development should complement unique landmarks and should not detract from the scenic vistas of Hamburg Township's lakes, hills and vegetation.

Contamination Sites: According to the State of Michigan records, there are eighteen sites within the Township that are on the states inventory of know facilities list. These sites consist of all known facilities where there has been a release of a hazardous substance(s) in excess of the Part 201 residential criteria and/or where response actions have not been completed to meet the applicable cleanup criteria. Also on this list are all known facilities where there has been a release of a hazardous substance(s) under a Part 213, leaking underground storage tanks, of the Natural Resources and Environmental Protection Act (NREPA) residential risk-based screening levels, and/or where response actions have not been completed to meet the applicable cleanup criteria. The following table includes a list of the 19 sites and the designation the state currently has on each of the sites. A map of the location of these sites can be found under [Map 11, Contamination Sites](#).

Table 4
Hamburg Township Contamination Sites*

Number	Name	Address	Summary Description
1	Grossman Ideal Steel	10800 Hamburg Rd.	Site Contamination PCE, VOC, and Metals
2	R & B Manufacturing	7495 E. M-36	Site Contamination: VOC
3	Hoskins Manufacturing**	10776 Hall Rd.	Site Contamination: PCE and VOC
4	Kings Kleaners	5589 E. M-36	Dry Cleaner: PCE discharge

5	Strawberry Lake Rd Dump	Strawberry Lake Rd.	Closed historic residential landfill site
6	Hamburg/Shell Hop-In	7620 E. M-36	Storage Tank: Historic Release of Petroleum, Tanks Removed
7	Brighton Boy Scout Rifle Range	Pine Creek Subdivision	Site Contamination: Metals
8	Kennedy Property	7609 E. M-36	Storage Tank: Historic Release of Petroleum, Tanks Removed
9	Lakeland Car Care Center	5637 E. M-36	Storage Tank: Historic Release of Petroleum
10	Lakeland Montessori	5520 E. M-36	Storage Tank: Historic Release of Petroleum, Tanks Removed
11	National Controls	10737 Hamburg Rd.	Site Contamination: PCE and VOC
12	Pettysville Store	9190 Pettysville Rd.	Storage Tank: Historic Release of Petroleum
13	Whitewood Meadows	Whitewood Meadows Lane	Closed historic residential landfill
14	Winter's Quick Clean	6458 E. M-36	Dry Cleaner: PCE discharge
15	Ted Cobb Boats & Motors	9653 Kress Rd.	Storage Tank: Historic Release of Petroleum, Tanks Removed
16	Chalet Cleaners	7490 E. M-36	Dry Cleaner: PCE discharge
17	Barbara Johnson Property	10814 Hamburg Rd.	Site Contamination: Metals
18	Key Plastics	7530 Strawberry Lake Rd.	Fire suppression water contamination

PCE= Perchloroethylene VOC=Volatile Organic Compounds

* For additional details regarding these sites, visit Michigan Department of EGLE's Environmental Mapper at

<https://www.mcgi.state.mi.us/environmentalmapper/>

** Brownfield Redevelopment site currently undergoing cleanup

- The Hoskins Manufacturing Site:** In February of 2019 the State of Michigan, Hamburg Township and the current property owners and local developer have partnered to revitalize the vacant, blighted property. A \$205,000 grant and a \$425,000 loan were awarded to the Hamburg Township Brownfield Redevelopment Authority (BRA) from the State of Michigan to address environmental contamination at this site. The grant and loan will not only help assess, but will also help to mitigate environmental contamination and remove blight from the site.

Map 11

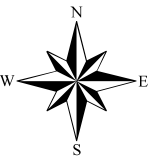
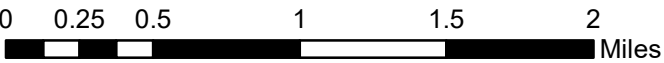
Contamination Sites

Hamburg Township,
Livingston County, Michigan

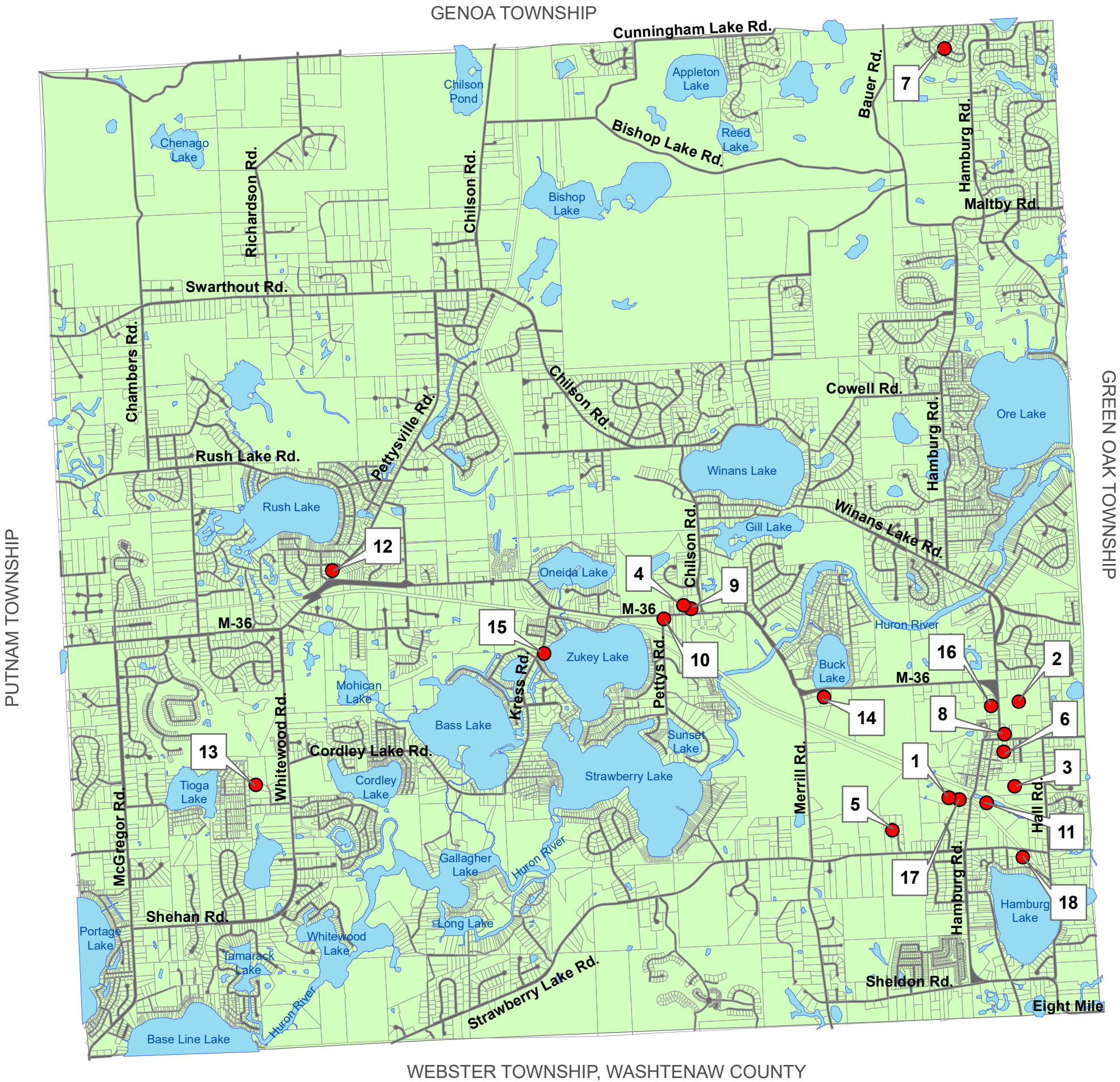
● Contamination Sites

Site Number	Name	Address
1	Grossman Ideal Steel	10800 Hamburg Rd.
2	R & B Manufacturing	7495 E. M-36
3	Hoskins Manufacturing	10776 Hall Rd.
4	Kings Kleaners	5589 E. M-36
5	Strawberry Lake Road Dump	Strawberry Lake Rd. at North Star Dr.
6	Hamburg/Shell Hop-In	7620 E. M-36
7	Brighton Boy Scout Rifle Range	Pine Creek Bluffs Subdivision
8	Kennedy Property	7609 E. M-36
9	Lakeland Car Care Center	5637 E. M-36
10	Lakeland Montessori	5520 E. M-36
11	National Controls	10737 Hamburg Rd.
12	Pettysville Store	9190 Pettysville Rd.
13	Whitewood Meadows	Whitewood Meadows Lane
14	Winter's Quick Clean	6458 E. M-36
15	Ted Cobb Boats and Motors	9653 Kress Rd.
16	Chalet Cleaners	7490 E. M-36
17	Barbara Johnson Property	10814 Hamburg Rd.
18	Key Plastics	7530 Strawberry Lake Rd.

Sources:
Hamburg Township, 2020.
Michigan Department of Environment, Great Lakes & Energy.



08/2020



Summary of Existing Natural Features: After review of all the natural features a needs assessment inventory was created. This inventory of natural resources is useful when interpreted to determine the capability of the natural resource base to support development. By guiding future development into the most capable areas, problems associated with large-scale grading, flood damage, foundation stability, poor drainage, and septic system failures can be avoided. The resource factors considered include topography, floodplains, wetlands, and soils (foundation stability, drainage, and septic suitability), and the criteria illustrated below were established for the various resource factors to determine which land areas were most or least capable of supporting development.

Table 5
Natural Resources Capability Map Process

Areas Least Capable of Supporting Development	Areas Most Capable of Supporting Development
Areas with slope greater than 12%	Areas with slope 12% or less
Areas within 100 year floodplain	Areas outside of 100 year floodplain
Wetland areas	Upland areas
Areas with poor soil stability	Areas with good or fair soil stability
Areas with poor soil drainage	Areas with good or fair soil drainage
Areas with severe septic limitations	Areas with few septic limitations

The final step in the development capability process was the mapping of the individual natural resource capability criteria on transparent overlays. By combining the overlays, a composite development capability map was produced.

The Development Capability Map is illustrated on [Map 12, Land Capability](#). Dark areas are lands least capable of supporting development while remaining Township lands are considered to be most capable of supporting development. As shown on this map, general patterns of land capabilities emerge. For example, lands adjacent to the chain of lakes, the Huron River and Hay, Chilson and South Ore Creeks are generally less capable of supporting development. Lands with a less restrictive development capability are scattered throughout the Township. Three major areas of favorable land are located within the Township. The first area is located in the vicinity of Hamburg Village. Another area is located to the southeast of Winans Lake, and a third area lies within the western portion of the Township along M-36. New structures built within these areas will pose few problems for development while projects proposed in areas outlined in the dark areas of the map will require close scrutiny and sensitive site design.



The natural resources data, inventory and map were all used in conjunction with the other factors discussed in the previous chapters to determine the appropriate locations for future land uses within the Township.

GENOA TOWNSHIP

Map 12

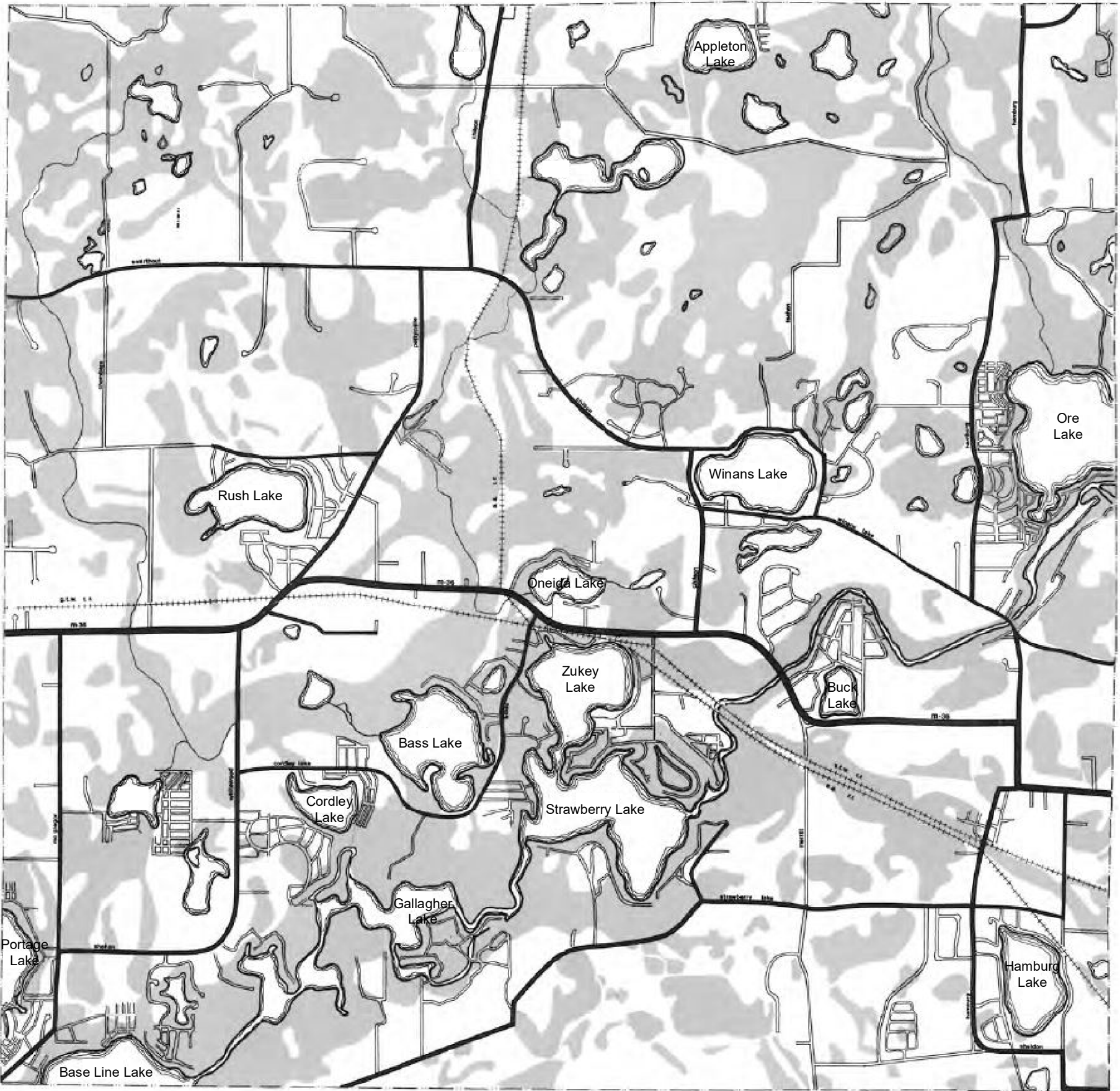
Land Capability

Hamburg Township,
Livingston County, Michigan

-  Land areas most capable of supporting development
-  Land areas least capable of supporting development

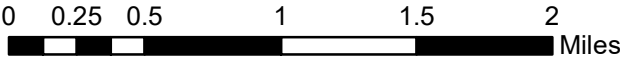
PUTNAM TOWNSHIP

GREEN OAK TOWNSHIP



WEBSTER TOWNSHIP, WASHTENAW COUNTY

Source:
Hamburg Township Master Plan, 1979
Ayres, Lewis, Norris, & May, Inc.



Existing Regulations: Many regulations within the Township Zoning Ordinance and General Ordinances have been created to help preserve and protect the natural resources of the Township.

- **Conservation Zoning Districts:** The interrelation between the natural features and land use components of the Master Plan is most visible in the establishment of land use categories. The land use categories are created following the constraints and opportunities for development. Therefore, if an area is identified as having significant and fragile natural resources, lower impact/density development is recommended. This is based upon the natural capability analysis described in the previous section.

Natural features however, are not the only items considered when determining land use categories. Other factors such as existing land use patterns, infrastructure improvements and traffic patterns and community needs are also considered. The following are some examples of how zoning districts may provide for the protection of these fragile natural areas:

- o **RAA - Single Family Low Density Rural:** This district currently has a minimum lot area requirement of 87,120 square feet (2 acres) per dwelling unit. This is currently the lowest density zoning district in the Township. This lower density developed with the flexibility offered by the Township's open space community regulations allows for a low impact form of development that can minimize impact on natural features.
 - o **NR - Natural River Residential:** This district has been established along the Huron River and was established based upon standards contained in the [Michigan Natural River Act \(PA 231 of 1970\)](#). This district was established to implement public objectives embodied in the [Huron River Natural River Management Plan](#) adopted by the [NRC](#), and endorsed by Hamburg Township. These public objectives seek to preserve and enhance the values of the Huron River area. This district contains standards that protect the Huron River such as setback requirements for buildings and septic systems, restrictions on land alteration, standards for building design and screening, requirements for maintaining a natural vegetation strip along the river's edge and strong regulations for waterfront structures such as docks.
 - o **Planned Unit Developments (PUD's):** PUD's allows flexibility in the development of properties in exchange for the preservation of sensitive land or to better provide for the community needs. This often time happens by clustering of development to preserve open space areas around wetlands and floodplains or in other areas of a property that may have unique natural features.
- **Natural Feature Setbacks:** The Township has also enacted setback regulations to reduce the impact of development and to help preserve specific natural features. The development setback includes setbacks from wetlands, lakes, rivers, and bluffs.

There is a strong basis for this type of requirement. Development surrounding water features, particularly wetlands, affects the function of the water feature. Development immediately adjacent to a water feature may have the effect of increasing the disturbance to this natural ecosystem and reduce the water feature's ability to perform these functions.

The setbacks help to protect the wetlands by preserve areas around these natural features. This allows the undisturbed soil between site improvements and the wetlands to act as a buffer to try to maintain the natural upland/wetland interaction that existed prior to development. It also creates natural open space corridors to serve as wildlife habitat, allowing animals to move through suburban areas along remaining undeveloped natural corridors.

- **Other Zoning Regulations:** Other regulations that currently exist to preserve the natural features of the community include regulations that restrict the lot coverage of a site based on its zoning district, the development of sites that are within the floodplain and floodway, and the access to lakes and rivers through the common use regulations.
 - o **Lot Coverage:** By restricting the percentage of the lot that can be covered by impermeable surfaces and other drainage requirements help to protect the community from flooding and problem created by excessive stormwater runoff and protect the open space areas on private properties.
 - o **Floodplain regulations:** These regulations are intended to comply with the provisions and requirements of the [National Flood Insurance Program](#) and subsequent enactments and rules and regulations promulgated in furtherance of this program by the [Federal Emergency Management Agency \(FEMA\)](#). The provisions in the Zoning Ordinance are intended to help protect human life, prevent or minimize material losses, and reduce the cost to the public of rescue and relief efforts. The provisions also restrict or prohibit uses which are dangerous to health, safety, or property in times of flooding or cause excessive increases in flood heights or velocities; require that uses vulnerable to floods, including public facilities which serve such uses, shall be protected against flood damage at the time of initial construction; and protect individuals from buying lands which are designated to be unsuited for intended purposes because of flooding. The regulations balance, providing these safety items while still allowing reasonable economic use of properties located within a designated floodplain area.
 - o **Common Use Regulations:** These regulations restrict the use of lake front properties, the over-usage of inland lakes, and avoid situations, which may create a nuisance, impair important irreparable natural resources and destroy property values. These regulations are intended to reinforce the implementation of the [Michigan Inland Lakes and Streams Act](#).
- **Township General Ordinances:** These general ordinances were approved as police power ordinances. However, some of the general ordinances have aspects that also help to preserve the natural features of the Township, such as the Drainage, Subdivision Control, Land Divisions, and Blight Ordinances.
 - o **Drainage Ordinance:** Increases in development activity place additional burden on existing natural drainage systems. The overtaking of drainage systems could lead to localized flooding, environmental damage, and costly storm drainage improvements to be borne by taxpayers. By prompting the preservation of natural drainage ways and providing stormwater retention basins,

the impact of development upon drainage systems are minimized.

The Township has adopted a strong Drainage Ordinance. This ordinance takes a comprehensive approach to stormwater management by encouraging: the preservation of existing natural features that perform stormwater management functions, minimization of impervious surface, direction of stormwater discharge to open grassed areas, and careful design of erosion control mechanisms. This ordinance also addresses the management of erosion and sedimentation by incorporating drainage elements such as the utilization of natural grassed swales, sedimentation ponds, wet ponds, and stormwater marsh systems. The ordinance generally requires the development of wet ponds and stormwater marsh systems for detention. The ordinance requires landscaping of stormwater basins, wet ponds and stormwater marsh systems.

- o **Subdivision Control Ordinance:** This ordinance requires compliance with the land division act regarding subdivisions of property. The regulations help the preservation of natural features that add value to the subdivision and to the community when possible. This ordinance also requires buffer area to preserve scenic views from roads, and protects lands that are deemed uninhabitable due to its natural state.
- o **Land Division Ordinance:** This ordinance requires compliance with the land division act when processing exempt splits. The regulations help to preserve the natural features of the township by restricting the size, location and number of possible divisions on a subject property.
- o **Blight Ordinance:** The Blight Ordinance provides the Township with the ability to prevent property owners from creating situations that may have a detrimental impact on the natural environment, whether it be on the scenic nature of the community or on items that could contaminate natural features.

Future Opportunities

Although the Township has many regulations currently in place to preserve and protect the natural features of the community there are still additional opportunities that the Township may wish to pursue in the future that would provide additional protection for these resources.

Streambank & Slope Protection: As pointed out previously in this plan, steep slopes require sensitive site planning prior to development. Above the floodplains and wetlands that line the Huron River and the other drainage ways of the Township there are steep banks or bluffs which separate the lowland and the upland. These will generally have steep slopes and be heavily vegetated. Disruption of the vegetative cover on these bluff areas may cause significant erosion problems and effect stream ecology. Care should be taken to ensure that extensive grading is minimized and to ensure that natural features such as vegetation and top soil are protected. This applies not only to bluffs that line waterways, but also to other areas of the Township where there is significant topography. The Township may wish to create stricter regulations to development activities on steep slopes.

There are a number of means for the Township to consider for the protection of steeply sloped areas:

- Setback requirements, such as the Natural River district setback of 125 feet for structure, could be established for all waterways. These requirements could be variable based upon the extent of the slope. This standard could be incorporated into the natural feature's setback described above where the setback is increased as the slope increase.
- The flexibility offered by the open space community regulations can be used to cluster the development away from steep slopes. The open space community regulations could be amended to require that areas with steep slopes be preserved as natural open space.
- Another innovative approach could be to adopt slope-related regulations where the density of development would be reduced on sites that contain steep slopes. Lots that are located in areas with severe topography would have to be larger. While this may add some complexity to conventional development, it may also serve as an incentive for clustered development under the open space community regulations.
- The Township may wish to work with the county, state, and HRWC to inventory areas where significant streambank erosion is occurring. A partnership can be formed between government agencies and private groups to undertake a streambank stabilization effort.

Gravel Road Crossings of Streams: In addition to streambank erosion, sediment delivered at road/stream crossings contribute significantly to sediment pollution in waterways. The problem is most pronounced with gravel road crossings. Sedimentation from roads destroys fish and wildlife habitat by filling deep ponds, decreasing hydrologic diversity and covering spawning gravel and aquatic substrate. The sediment also degrades water quality by carrying oils, greases and other pollutants from the roadway into the waterway. The Township can work with the LCRC, the MDNR, and the MDOT to control and manage sediment delivery at road crossings. This can be done through a variety of means including a combination of paving, curb and gutter, drainage control structures, diversions, and sedimentation basins. Also, the Township Private Road Ordinance and Drainage Ordinance can be amended to require that sedimentation control structures at all road/waterway crossings.

Septic System Treatment: Ground water and surface water contamination from septic drain fields is a serious concern in the Township. Many of the areas surrounding the chain of lakes in Hamburg Township were developed prior to current zoning and health regulations. Many of these neighborhoods were developed as cottage communities at higher densities than currently allowed, and within areas where the soils are not suitable for septic system treatment. The continued growth of the community and the conversion of many of these cottages into year-round homes has over time led to contamination problems. In response to this, the Township has established public sanitary sewer districts to serve these areas. Through working with the Livingston County Health Department, the Township can continue to manage the problem of ground water and surface water contamination from septic drain fields as they arise. The Township should also consider the continuation of the provision of public sanitary sewer to higher density areas of the Township and those areas with poor soil conditions and restrict the density of future development in areas where the threat to ground water and surface water contamination is highest. The Township can encourage and incentivize future developments to be served by sanitary sewer.

Restoration of Wetlands: Previous to current wetland regulations, many wetlands within the Township were filled, drained or otherwise altered. Wetlands along the Huron River and the chain of lakes have been filled for the purpose of development. In other areas, drains and agricultural tiles may have been installed to drain surface water from wetlands so that the land could be farmed.

The location of these altered wetlands can be identified. Although the hydrology of the site has been altered, the native soils will still exhibit coloration and textures associated with hydric conditions. In addition, the MDNR has mapped pre-settlement land cover (vegetation) based upon historic survey records. Maps are available for Hamburg Township that show the historic natural land cover.

These wetlands can be restored. Hydrologic restoration may involve the removal of fill material and/or closing (or slowing) man-made drainage ways. Restoration may also involve covering the soil surface with peat and re-establishment of hydrophytes (wetland vegetation). Within open space community developments where there are damaged or filled wetlands, a condition of approval may be the restoration of the natural system.

Floodplains: A significant portion of Township residents live within a floodplain. These areas are characterized by the older lake front cottage developments that pre-date current floodplain regulations. Any attempt to eliminate existing floodplain development is not practical. However, the Township has adopted realistic regulations that regulate any new development or redevelopment within the floodplain.

Within the floodplain, there are varying degrees of hazard, which require different regulatory treatment. The floodway is that portion of the floodplain, which directly adjoins the stream channel and endures frequent flooding and strong currents. The floodway is an inappropriate area for permanent construction, especially designed for human habitation. However, the area within the floodplain but outside the floodway serves as a backwater storage area and may be developed provided that structures are elevated above the flood level or flood-proofed. The current Township regulations reflect these standards. However, the Township should continue to educate staff and Township residents on the floodplain regulations.

Lake Access & Use Regulations: Increased population in Hamburg Township and lake front development have continued to place pressures on the many lakes of the Township for recreational use. The Township currently has regulations that govern the creation of common use “keyhole” development. A keyhole, also referred to as a common use access site, is a waterfront lot that is used to provide lake access for non-riparian (non-lake front) lot owners. Many existing subdivisions contain these keyhole lots and predate the ordinance. These keyholes are generally waterfront parks that are owned in common by all lot owners within the subdivision.

When used for access and dockage for numerous boats, these can increase the density of boat usage on the lakes and contribute to the following problems, particularly from powerboats:

- Shore erosion.
- Damage to lake bottom and stirring-up of sediment.
- Oil and gas spillage.
- Noise.
- Conflicts and safety problems between numerous users (power boats, sailboats, personal watercrafts,

canoes and swimmers).

As the Township continues to grow, the problem associated with lake overcrowding will worsen. It is important to point out that keyholes are only one part of the problem. Impacts to the safety and quality of the Township's waterways is also impacted by recreational use by riparian, or waterfront lot owners, as well as public access sites such as MDNR launch sites. While the current keyhole ordinance can help manage the problem, the Township should consider further study towards adopting a more comprehensive approach towards managing usage of the Township's waterways. This comprehensive approach to managing the usage of the waterways could include limiting the number of boats on all lake front lots (keyhole or private lots), requiring minimum lot shore lengths on waterways for new lots, or creating more enforceable regulations regarding the usage of docks. The Township may also consider working with the Livingston County Sheriff and the MDNR to create and adopt a marine safety ordinance that regulates recreational usage of the Township's waterways, such as safe operations of vessels, speed limits, noise levels, pollution of waters, obstruction of waterways, and use of road ends for mooring, along with many other items.

Preservation of Natural Topography Vegetation: For those who have resided in an urban setting, the intrinsic value of rolling topography, trees and vegetation is well understood. Poorly conceived subdivision activity has unwisely removed tree cover and involved massive grading to minimize site development cost. The scarcity of large tracts with woods or rolling topography make those that still exist highly valuable. The land use densities proposed by the [Land Use](#) section of this Master Plan will promote the preservation of existing vegetation and topography. Further, specific standards can be applied to subdivision plot regulations and site plan review to require preservation of tree cover, the provision of landscaping and buffer strips, and the minimization of site grading. The open space community regulations should continue to be utilized to encourage preservation of open space, vegetative cover, and natural topography.

Woodland and Tree Preservation: As discussed previously a significant portion of the total land area of the Township is wooded. With the increase in development throughout the Township, there is pressure from development to encroach on these wooded areas. Although the Township currently has some regulations in place to preserve the more important wood areas and to require new plantings to provide buffers and screening of the new developments, more could be done to protect these trees. The Township may wish to consider a tree preservation ordinance that requires that any significant sized vegetation that is removed due to a new development be replaced with additional new native landscaping based on the size and number of existing trees being removed. These types of regulations not only required the developer to replace vegetation that is removed, but also makes the project owners seriously consider the removal of existing vegetation when designing a project.

Green Infrastructure: Green infrastructure can be categorized in two ways: 1) Natural - the ecosystems present in the natural environment. 2) Built - constructed green infrastructure such as rain gardens, bioswales and community gardens. Green Infrastructure provides many natural resource benefits. It can reduce the amount of polluted stormwater runoff entering rivers, lakes, streams and wetlands and the risk of flooding by slowing and reducing stormwater runoff into waterways. It can be used for water collection for irrigation or infiltration into the soil to recharge groundwater and increase flow into rivers. It also can be used to create habitat corridors and to

increase vegetation, which positively impacts air quality through capture and reduction of carbon, dust and air pollution.

Built green infrastructure takes many forms such as:

- Bioswales: A shallow stormwater channel densely planted with grasses, shrubs and/or trees.
- Grow zones: Areas of concentrated native plantings.
- Pervious pavement systems: Paver blocks, permeable concrete parking lots and other systems that allow water to filter through and be stored/discharged.
- Streetscape planter boxes: Primarily fenced in areas containing plantings and a water filtration and release system.

The Township can educate the public on the benefits and use of green infrastructure and can work on regulations that either require the use or incentivize the use of green infrastructure on certain projects.

New Zoning District: There are certain portions of the Township that are characterized by significant natural features such as extreme topography, large wetland complexes and extensive wildlife habitat. Much of these areas are within the Brighton State Recreation Area in the northern portion of the Township. Many of the privately owned lands surrounding the Recreation Area have been developed at a very low density due to the extreme natural conditions of this area. As the surrounding areas become more urbanized, the MDNR may sell portions of the State Recreation Area to purchase land in more remote locations. The Township may consider adopting very low-density zoning district that would require a larger lot size, such as five acres, for this area. This would help ensure that the significant natural features of this area will be protected if this area becomes developed.

Goals and Objectives

The following section will list out some of the more important goals and objectives of the Natural Features section followed by possible implementation measures to reach these goals.

NATURAL FEATURES GOALS AND OBJECTIVES

Goal 7: Protect, preserve, and enhance whenever possible the unique and desirable natural amenities of Hamburg Township.

Objective A: Direct future development to areas most suited for that type of development.

Objective B: Consider the location of the natural features on a site during review of future development layouts.

Objective C: Encourage preservation of the existing landscaping, natural features, and rural/scenic quality of the Township.

Objective D: Encourage future development to incorporate green infrastructure measures.

Objective E: Discourage developments from removing existing woodland areas and significant trees when appropriate.

Objective F: Better regulate the usage of the waterways within the Township where possible.

Objective G: Identify and restore existing wetland areas that have been damaged.

Objective H: Encourage clean energy sources while still balancing the benefits and drawbacks presented by the alternatives.