

Forest Home Township
Antrim County, Michigan

MASTER PLAN



Adopted 1997

Amended 2008

Last Updated: October 7, 2021

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Board of Trustees**

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PART ONE: INTRODUCTION

Chapter 1 The Planning Process

PURPOSE OF THE MASTER PLAN

This Master Plan is intended to guide policy and decision making for future land use, infrastructure and public service decisions within Forest Home Township. The Plan contains the following information:

- Guiding principles and background information
- Description of the Township
- Trends and planning issues
- Recommendations

The Master Plan is a comprehensive, long-range plan intended to guide growth and development in Forest Home Township. It is an orderly, open approach to land use planning. It cannot regulate land use, because it is a policy- based document and not a zoning document. The Master Plan will be reviewed every five years by the Planning Commission and revised as needed. Purposes of the Master Plan include the following:

- Provide Background Information on Forest Home Township
- Provide Planning Information to guide growth and development in Forest Home Township
- Provide Guiding Principles and Policies to help the Board of Trustees, Planning Commission and Parks & Recreation Committee achieve the goals of Forest Home Township

NEED FOR PLANNING

Planning is a part of everything we are involved in today. As individuals and families, we make plans for our evening, weekend, vacation or retirement. Planning by an individual can be a relatively simple task. Planning as a community is a much more difficult task due to the increasingly larger number of individuals involved and the various competing interests.

BENEFITS OF PLANNING

Changes occur in communities over time with or without an organized effort to plan the future of the community. Planning the future growth and development of Forest Home Township allows us to guide the rate and type of change. Planning enables us to determine the locations for growth to maximize the positive aspects while limiting or minimizing the negative aspects of this growth.

Through planning, we can encourage both public and private investments into areas where the type and intensity of activity is viewed as appropriate by the community. Through planning, we

can recommend the allocation of public resources which allow for future choices and promote the public health, safety, and general welfare.

Planning has many benefits:

- Basis for making informed decisions
- Consistency in decision making
- Information for allocating resources
- Foundation for preserving rural character
- Basis for predicting future development
- Protect property values

The majority of public dollars is spent on public safety (fire and ambulance), transportation (local road improvements), recreation (facilities and programs), land use (planning and zoning) and schools. Well planned land use, locations of development, and timing of development can have major impacts on these expenditures.

LEGAL BASIS OF THE MASTER PLAN

The Michigan Planning Enabling Act (Act 33 of 2008), as amended, requires the Township to develop a plan. The Township determines the type of plan. Some of the types of plans recommended by the Michigan Chapter of the American Planning Association include a Future Land Use Plan, a Comprehensive Plan, a General Plan and a Growth Management Plan.

This plan has been developed under the guidelines of the Michigan Planning Enabling Act and best practices recommended by the Michigan Chapter of the American Planning Association. It meets the mandated requirements for a township plan.

The Michigan Zoning Enabling Act (Act 110 of 2006) as amended, requires that a community that administers a zoning ordinance must base that ordinance on a zoning plan. The zoning plan set forth in Chapter 8 of this plan fulfills this requirement.

THE MASTER PLAN ORGANIZATION

This document is organized into three parts. This first part explains the purpose and process of developing this master plan and it outlines the work of the Township over time to maintain it. Part two is the community profile which is intended to describe the Township as it is currently from various points of view, such as natural features, demographics and community facilities. Part two also outlines the implications that current trends may have on the future. The third part is the future land use plan and it presents policies, goals and objectives to move the community toward a preferred future. It also includes specific descriptions of desired future land uses and a map to illustrate them. Finally, some implementation strategies are outlined to help build momentum.

THE HISTORY OF PLANNING IN FOREST HOME TOWNSHIP

1970 First Forest Home Township Master Plan approved by the FHT Board of Trustees.

1971 Interim Zoning Ordinance including a Wetland District approved by the FHT Board of Trustees. The first zoning ordinance approved in Antrim County and the first wetland ordinance in the State of Michigan.

1995 Forest Home Township Board of Trustees worked with Michigan State University Extension to develop and distribute, compile and analyze the results of a public opinion survey. (Copies are available at the Township Office.)

Then, the Forest Home Township Board of Trustees appointed nine residents to serve as an Advisory Committee to the Planning Commission. These two groups worked together with a planning consultant to revise the Master Plan and Zoning Ordinances for Forest Home Township. Representatives from Village of Bellaire and Kearney Township also provided input.

1997 Forest Home Township Board of Trustees approved the revised Master Plan.

2000 Forest Home Township Planning Commission reviewed Master Plan. Forest Home Township Board of Trustees approved the revised Zoning Ordinance.

Forest Home Township contracted with the Tip of the Mitt Watershed Council to conduct a Resource Inventory and maps of the Township's natural features.

Forest Home Township Planning Commission accepted the Resource Inventory maps and final report.

2002 Forest Home Township Board of Trustees approved the revised Zoning Ordinance to incorporate planning principles from the New Designs for Growth Guidebook.

2005 Forest Home Township Planning Commission began revision of the Master Plan.

2008 A committee of the Forest Home Township Planning Commission reviewed principles and policies and followed the requirements of State statute regarding Plan updates.

2012 A Master Plan update was initiated to comply with the Zoning Enabling Act's requirement to have an updated Plan every five years. This document was approved by the Township Board on March 6, 2014, following a public hearing held by the Planning Commission on March 5, 2014.

2019 To fulfill the Plan's commitment to review and refresh the plan at least every five years and to comply with the requirements of the Planning Enabling Act, the Planning Commission began a process to evaluate and update this document which was ultimately approved by the Township Board on _____, 2021, following a public hearing held by the Planning Commission on October 6, 2021.

PLAN REVIEW

The Forest Home Township Planning Commission will review the Forest Home Township Master Plan every five years. They will recommend changes to the Master Plan and identify new issues that need to be addressed by the Township Board, the Planning Commission and the Parks & Recreation Committee.



PART TWO: COMMUNITY PROFILE

Chapter 2 Natural Resources and Township History

LOCATION OF FOREST HOME TOWNSHIP

Forest Home Township is located in the northwest Lower Peninsula of Michigan (Map 1). The Township is approximately 25 miles northeast of Traverse City, 60 miles southwest of the Mackinaw Bridge, and 200 miles north of Lansing, the state capital.

Forest Home Township is centrally located among the 15 townships in Antrim County and within the Elk River/ Chain of Lakes Watershed, providing numerous water features and recreational opportunities for residents. Forest Home Township is an interior peninsula with 26.6 miles of shoreline and surrounded by water on three sides:

- East* Grass River, Intermediate River, Intermediate Lake,
Lake Bellaire
- South* Clam Lake and Clam River
- West* Torch Lake

Forest Home Township is bordered by six townships:

- North* Border with Central Lake Township is 2.6 miles in width.
- East* Kearney Township and Custer Township
- South* Helena Township
- West* Milton Township and Torch Lake Township

Forest Home Township's shape differs from that of a typical surveyed township in Michigan because it is not a square shape and covers only 23.6 square miles as opposed to 36 square miles. The western portion of the Village of Bellaire is also contained within Forest Home Township.



TOPOGRAPHY

Forest Home Township is an interior peninsula surrounded by high quality lakes and rivers (Map 2). Intermediate Lake, Lake Bellaire, Clam Lake, and Torch Lake are located along the Township's borders. The Intermediate River and Grass River also surround the Township, connecting neighboring lakes.

The land and soils of Forest Home Township were formed by the glaciers more than 10,000 years ago. As the glaciers advanced and retreated across Michigan, they left behind many unsorted materials called "till," which includes rocks, sand, gravel, silt, and clay. Although Ellsworth shale forms the bedrock under the Township, it is covered with glacial till that was deposited during the Ice Age.

Other characteristics of a glacial past can be observed within the Township. The center of the Township was formed by a glacial moraine, which appears like a large, rolling ridge of poorly sorted sediments. This was created from large amounts of till being deposited in a single area. This moraine has since been eroded by former ancient lakes.

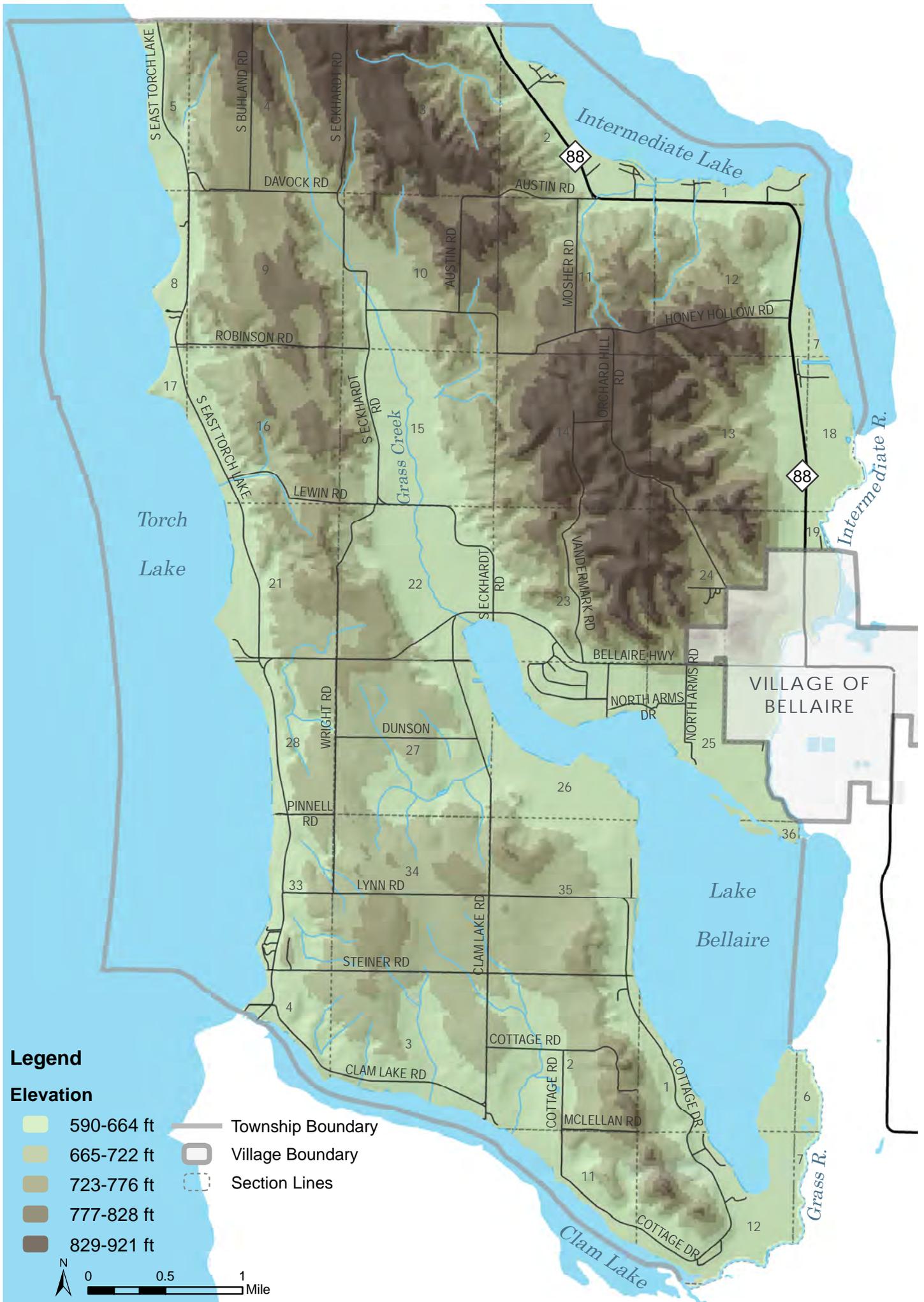
The edges of the Township also have terraces which reflect the former lake levels and beaches of Lake Nipissing (East Torch Lake Drive) and Lake Algonquin (Wright Road).

Southern Half

The old shoreline of glacial Lake Nipissing forms a high plateau. Over time, the changing lake levels created a series of beaches that descend with gentle slopes (under 12%) to the current lake levels.

Northern Half

The northern half has steeper slopes (20%-40%) than the southern half of the Township, which run in a northwest-southeast direction. These slopes form ridges that are divided by the Grass Creek Watershed. Grass Creek flows from Central Lake Township through the center of Forest Home Township and into the North Arm of Lake Bellaire.



Legend

Elevation

- 590-664 ft
- 665-722 ft
- 723-776 ft
- 777-828 ft
- 829-921 ft
- Township Boundary
- Village Boundary
- Section Lines



HISTORY OF FOREST HOME TOWNSHIP

Forest Home Township has always been a rural township with low population. Family farms and small woods are critical features of this rural character.

- 1849** The first area settled in Antrim County was the area now known as Elk Rapids. When new areas in the United States were settled, the settlements were generally located at a junction of transportation routes. Elk Lake's connection to Grand Traverse Bay provided just such a location. Boats were the primary means of transportation in and around the state. One could travel up the Chain of Lakes into the interior of what has become Antrim County and reach the area we know as Forest Home Township.
- 1860** The early economic activity of the area consisted of fur trapping and logging. Logging continued into the early 1900's. Logs from the interior of Antrim County were floated via the rivers and lakes to saw mills where they were milled and placed on boats to be shipped to locations around the Great Lakes to aid in the construction boom. Grass Lake (Lake Bellaire) was home to a saw mill at a location known as Clayton's Landing, now the location of a group of cottages.
- The majority of the timber harvested from the eastern shoreline of Lake Michigan and the interior areas was sent to Chicago. The lower quality wood that was not worth shipping to other locations was generally used for local construction and charcoal.
- 1871** Forest Home Township was organized by the Antrim County Board of Supervisors in January of 1871 with the first annual meeting being held on April 3rd of that same year.
- 1879** The Village of Bellaire was designated and laid out as the county seat in 1879. This designation assisted in ensuring the importance and lasting economic impact Bellaire would have on the area.
- 1880** The Forest Home Township Hall was built on the corner of North Bridge Street and Richardi Streets in the Village of Bellaire.
- 1886** Forest Home Township established the Lakeview Cemetery on County Road 620 west of the Village of Bellaire.
- 1889** The Pere Marquette Railroad provided the first railroad service through Bellaire. The advent of rail service allowed areas that were previously not capable of being logged, due to their distance from the water, to be harvested and the logs to be shipped by rail. This enabled the lumber boom to continue and expand, bringing forth population levels that are only today being replicated throughout the region.
- 1900** As the "endless" supply of trees was finally depleted, the area's population dropped substantially compared to its glory days. Upon the end of the logging activity, farming became a viable means of survival.
- 1906** The Bellaire School was built at 204 W. Forest Home Avenue in the Village of Bellaire.
- 1920** The railroad also brought the first resorters. Hotels and lakeshore resorts with cabins became important destinations for families from Detroit, Chicago, Cincinnati and St.

Louis. Boating, sailing, fishing and hunting continue to provide vacation and recreational opportunities for both tourists and seasonal residents.

- 1927** The Torch Lake Yacht and Country Club was established by a small group of resorters and a clubhouse was built on Torch Lake at the end of Larson Road. Local families and club members enjoyed picnics and boating on the Yacht Club Point.
- 1930** Many resorters built cabins and summer homes. Miley's Resort on Lake Bellaire and Pere Marquette Beach Hotel on Torch Lake at Clam River became popular destinations.
- 1947** Forest Home Township gave the Lakeview Cemetery to the Village of Bellaire. The Bellaire Log Cabin business was established on County Road 620 west of the Village of Bellaire.
- 1950** Glacier Hills Ski Hill on Orchard Hill Road brought local residents and resorters together for winter recreation.
- 1960** The Pere Marquette Beach Hotel property was sold, the hotel was torn down and the Sunset Torch Condominiums were constructed.
- 1962** Shanty Creek Resort and the Deskin Golf Course were constructed.
- 1965** A new high school was built at 204 W. Forest Home Avenue in the Village of Bellaire.
- 1970** Forest Home Township adopted the first township zoning ordinance in the county and created a wetland overlay district.
- 1973** Forest Home Township was the only township in Antrim County to vote in favor of county zoning.
- 1980** The Pere Marquette Railroad abandoned the railroad right-of-way and sold many parcels to private property owners. Family farms began to change from crops and dairy cattle to orchards. Many valuable agricultural lands were sold for private residences. Resorters began to retire to their summer homes and become year- round residents, which changed the demographics of the Township.
- 1987** Bellaire Log Cabin business closed.
- 1988** Forest Home Township constructed a new township hall on the site of the original township hall in the Village of Bellaire.
- 1999** Forest Home Township established a Parks and Recreation Committee. The Committee conducted an inventory of all public lands and began a program of improving public access sites with fences and signs.
- 2000** Forest Home Township received its first grant from the Michigan Natural Features Trust Fund and established the 32-acre Loon Nursery Preserve on the North Arm of Lake Bellaire.
- 2001** Forest Home Township, in partnership with eight other townships as well as area villages, formed a regional ambulance authority.
- 2004** Forest Home Township negotiated leases for properties with lake access on Torch Lake.

2006 Miley’s Resort closed and the 90 acres of property was sold. Forest Home Township received its second Michigan Natural Features Trust Fund grant to purchase 345 acres for the Glacier Hills Natural Area on Orchard Hill Road.

Forest Home Township acquired land on Clam Lake and designated the land as Arrowhead Park.

Forest Home Township received a Trust Fund grant to expand the Glacier Hills nature preserve to 763 acres.

2009 Forest Home Township renovated its township hall, doubling the facility in size to accommodate expanding services and to meet demand. The renovation also includes a new boardwalk and garden area on the property.

2011 Forest Home Township negotiated leases for properties with lake access on Lake Bellaire.

2012 Forest Home Township negotiated leases for properties with lake access on Intermediate Lake.

CLIMATE

Located along the 45th parallel, Forest Home Township's temperate climate is affected to a great extent by the “lake effect” of surrounding water bodies, especially Lake Michigan and the Grand Traverse Bays.

Precipitation. Low elevation locations such as the lakeshore tend to be warmer in the fall and cooler in the spring than the higher elevations in the interior of the Township. Annual rainfall averages over 31 inches per year, with 120 to 140 inches of snowfall being a typical accumulation each year, depending upon the specific location within the township.

Growing Season. The growing season averages 140 days per year. Many of the agricultural crops (orchard fruits) produced in Forest Home Township require cool temperatures in the spring to prevent flowering prior to the last frost in the spring and an extended period free of frost well into the fall. These orchards are best located on high ground or ridges to ensure good air movement, which prevent frosts from occurring.

Four Seasons. The dramatic difference in weather conditions from season to season provides variety in environmental conditions, which many people find desirable and contributes to this area being a four-season recreation area. The following temperature averages were retrieved from the 2018 NOAA climatological data at the Traverse City Cherry Capital Airport, which is the closest station most representative of Forest Home Township that is actively recording temperature and precipitation.

Spring

Spring is short and begins when there are cold nights and warm days- ideal conditions for maple sugaring. The average spring temperature (March – May) was 46.7 degrees Fahrenheit with 1.7 inches of precipitation per month in 2018. As the soil warms in May and spring showers

provide much needed moisture, morel mushroom hunters and wildflower watchers invade the beech and maple forests. Loons return to the lakes surrounding the Township and nest on Lake Bellaire, Clam Lake, and Intermediate Lake. People install docks and boat hoists, rake yards, clean up lawns, and launch boats. Farmers also begin to prepare land for agricultural production in the springtime.

Summer

According to 2018 NOAA climatological data, typical summer temperatures (June – August) average 71.1 degrees Fahrenheit. Often, temperatures range from the mid 50's to the high 70's throughout the summer. Precipitation averaged 2.9 inches per month in 2018. These are averages, so a considerable amount of variation occurs within Forest Home Township. However, the warm summers provide for watersport activities and attract large numbers of people into the Township. As a result, the majority of the shoreline along the water bodies in the Township has been developed for residential housing.

Fall

Fall temperatures (September – November) averaged 49.3 degrees Fahrenheit with an average precipitation of 2.9 inches per month in 2018. When temperatures start dropping in October, the leaves on the deciduous trees change colors. Tourists are referred to as “Leaf Peepers,” because they drive through the Township to see the fall colors. Activities such as cutting firewood, putting away boats and lawn furniture, and hauling in docks and boat hoists keep local businesses very busy in the fall.

Winter

In 2018, the winter temperatures (December – February) averaged 27.5 degrees. Generally, winter temperatures fall between 15 and 30 degrees above zero. Precipitation averaged 1.4 inches per month. Due to the cold and snow during the winter months, a substantial number of seasonal homes are vacant during the winter when the owners (Snowbirds) choose to relocate to warmer climates or visit their seasonal homes for shorter periods of time. Extreme temperature variations do occur throughout the year.

The snowfall and cold temperatures do attract downhill skiers, ice fishermen, snowmobilers and other winter sports enthusiasts to this area. Ice fishing is popular on Clam Lake, Lake Bellaire and Intermediate Lake. Many retail businesses close after the Christmas holiday.

SURFACE WATER RESOURCES

Forest Home Township is located in the heart of the Elk River/ Chain of Lakes Watershed. This watershed covers over 500 square miles and is the largest sub-watershed of Grand Traverse Bay. It also contains the famous Chain of Lakes, where 55 miles of lakes and streams are connected throughout Antrim and Kalkaska Counties. Navigation Charts of the Antrim County Chain of Lakes, Michigan (Mapping Unlimited, 2000) are useful for traveling by boat through the lakes and rivers. Within the Chain of Lakes, the Township is surrounded by Torch Lake, Lake Bellaire, Clam Lake, Intermediate Lake along with Intermediate River, and Grass River. Detailed information about these lakes and rivers in Forest Home Township is available from the

Michigan Department of Environmental Quality (MDEQ), Michigan Department of Natural Resources (MDNR).

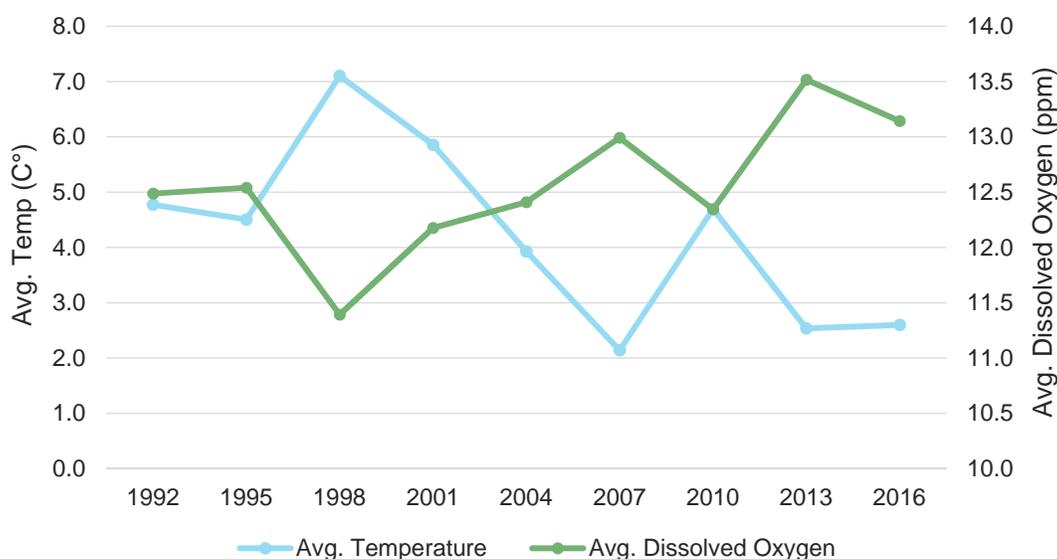
The Tip of the Mitt Watershed Council conducts comprehensive water quality monitoring throughout the northern tip of the lower peninsula of Michigan, as this area contains some of the healthiest surface waters in the state. The quality of these lakes indicates the health of the surrounding environment and watershed in which they reside. Therefore, as northern Michigan continues to experience development, this research provides valuable data on the health of the environment and surface waters.

Water Quality. The lakes and streams surrounding Forest Home Township have been ranked by the Michigan Department of Water Quality as the highest quality water resources in the State of Michigan. Torch Lake contains 25% of all of the surface freshwater in the State of Michigan.

The Tip of the Mitt Watershed Council has performed water quality testing on many northern Michigan lakes since 1992. Perhaps the best barometer of water quality is the amount of dissolved oxygen (DO) in the water, since most aquatic life relies on oxygen to survive. Oxygen enters the water from the atmosphere and as a byproduct of aquatic plant photosynthesis. Colder water has a higher capacity to hold oxygen than warmer water. Additionally, oxygen is depleted when there is too much decomposition of organic matter by bacteria. Therefore, measuring temperature and DO can be a helpful indicator of water quality.

The Watershed Council has observed temperature and DO trends in Torch Lake (Figure 1). When average water temperatures were higher in 1998, the dissolved oxygen was lower than normal. However, in recent years (2013-2016), water temperature has been low and dissolved oxygen has been high. This indicates a clean and clear lake that supports cold-water fish species.

Figure 1. Temperature and Dissolved Oxygen in Torch Lake



Source: "Comprehensive Water Quality Monitoring (CWQM)," Tip of the Mitt Watershed Council, 2016. watershedcouncil.org/comprehensive-water-quality-monitoring.html

Lake Levels. The Circuit Court has established lake levels within the Elk River/ Chain of Lakes Watershed. Lake levels are monitored by the Antrim County Drain Commissioner.

The Lower Chain (Elk Lake, Skegemog Lake, Torch Lake, Clam Lake, and Lake Bellaire) is controlled by a dam in the Village of Elk Rapids. On September 25, 1973, Circuit Court Case File #962 set the drop down date to November 1. The winter level drops to 590.2' and the summer level to 590.8'.

The Upper Chain (Intermediate Lake, Hanley Lake, Benway Lake, Wilson Lake, Ellsworth Lake, St. Clair Lake and Six Mile Lake) is controlled by a dam on the Intermediate River located at Richardi Park in the Village of Bellaire. On December 4, 1990, Circuit Court Case File #1180 set the drop down date to November 1. The winter level drops to 606.54' and the summer level to 607.15'.

There is another dam on Derenzy Road on the east side of the Village of Bellaire, where the Cedar River enters the Intermediate River, which controls the flow of the Cedar River into the Intermediate River and maintains water levels in Craven Pond.

LAKES

Torch Lake is one of the most extraordinary lakes in Michigan and forms the western boundary of Forest Home Township. Formerly a deep, fjord-like bay of ancient Lake Michigan, Torch Lake became an inland lake when a sandbar formed across the mouth of the bay at the lake's northwest end. Torch Lake is classified as oligotrophic, which means it is deep, cold and relatively young. Because it has low nutrients, there are few aquatic plants and the lake cannot support many fish or other organisms.



Area. Its surface area (28.86 square miles) is second largest of the lakes in Michigan, but its great depth (more than 300 feet) gives it by far the largest water volume of any inland lake in the state.

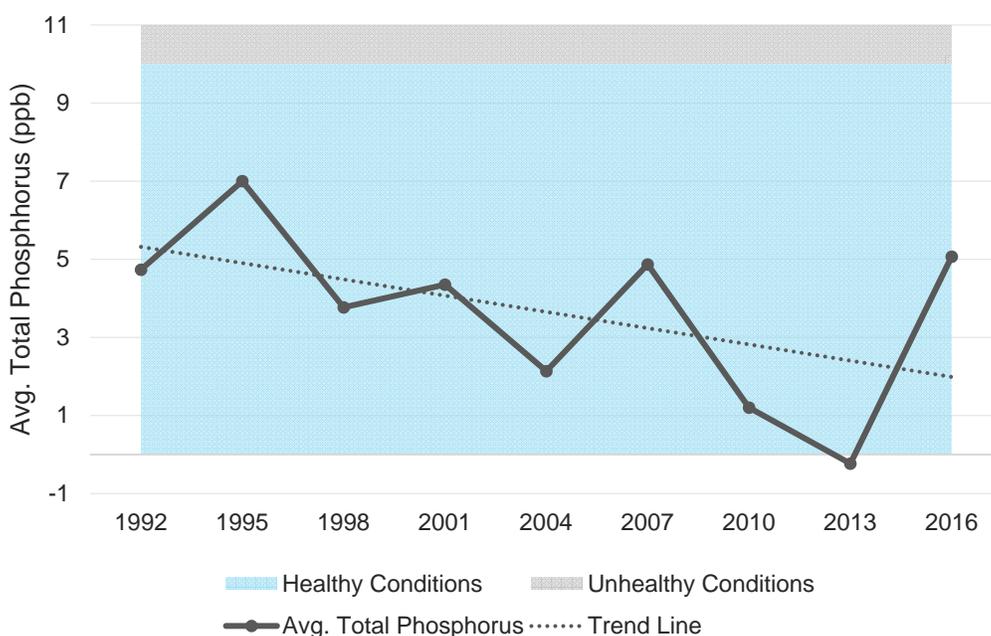
Shoreline. Torch lake is Michigan's longest inland lake at 18 miles and has 41.4 miles of shoreline. The shoreline consists mostly of cobble-sized (2.5"-10" diameter) rocks. However, large areas of sand are present in some places, most notably at the north and south ends of the lake.

Water Quality. Torch Lake has exceptionally high water quality. With low nutrient levels, Torch Lake does not support a lot of algae and as a result, the water is very clear. The dissolved oxygen is very high in the water, also indicating clear water with low nutrients (Figure 1). Chloride, a common component of salt and indicator of human activities, has increased in the

water between 1992 and 2016; however, its average levels are still within acceptable levels for a natural lake environment (<10 ppm).

Nitrogen and phosphorous are necessary nutrients for plant growth and exist naturally in many forms. However, human activities often associated with lawn care and crop production can create excessive concentrations of these nutrients, which can move through the groundwater into lakes. Total nitrogen in Torch Lake has averaged around the reference condition (440 ppb) for a minimally polluted lake. However, the lake’s nitrate nitrogen, which is the specific ion that contributes to eutrophication, is much lower than the accepted threshold level, indicating good water quality. Further, phosphorous levels have remained well below the reference condition (10 ppb) between 1992 and 2016 (Figure 2).

Figure 2. Total Phosphorous Levels in Torch Lake, 1992-2016



Source: “Comprehensive Water Quality Monitoring (CWQM),” Tip of the Mitt Watershed Council, 2016. watershedcouncil.org/comprehensive-water-quality-monitoring.html

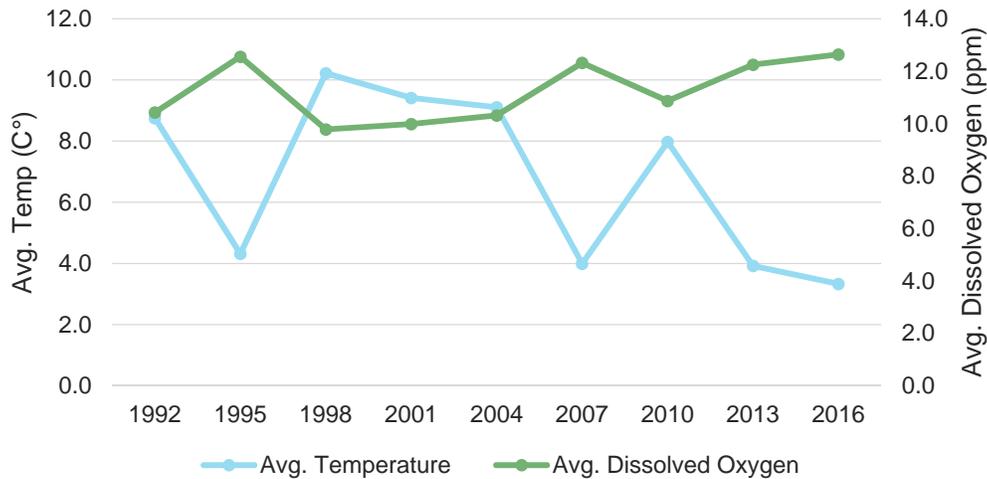
Fishery. Torch Lake supports cold water fish species such as lake trout, whitefish, and cisco.

Tributaries. Torch Lake has a current flowing from north to south, which is influenced by its 47 tributaries. Major tributaries include Eastport Creek (Torch Lake Township), Wilkinson Creek (Central Lake Township), Clam River (Forest Home Township and Helena Township) and Spencer Creek (Helena Township).

Lake Bellaire is situated between Intermediate Lake and Clam Lake. It was formerly known as Grass Lake. It is moderately productive and shares similar physical, chemical, and biological characteristics with Intermediate Lake. Based on 2018 testing, Lake Bellaire was classified as oligotrophic. Historically, it has been classified more as mesotrophic because it is shallower,

warmer, and middle-aged. However, in recent years its average temperature has been decreasing and as a result its average dissolved oxygen has been increasing (Figure 3). However, it is still warmer and supports more nutrients than Torch Lake, resulting in a higher population of fish and other organisms.

Figure 3. Temperature and Dissolved Oxygen in Lake Bellaire



Source: "Comprehensive Water Quality Monitoring (CWQM)," Tip of the Mitt Watershed Council, 2016. watershedcouncil.org/comprehensive-water-quality-monitoring.html

Area. Lake Bellaire has a surface area of 2.8 square miles and a maximum depth of 95 feet.

Shoreline. Lake Bellaire is 4.5 miles long and has 11.5 miles of shoreline. Most of the shoreline has sand or gravelly-sand. The rest of lake has a muck or marly sand bottom. There are no rocky shorelines, which is unusual for a lake of this size.

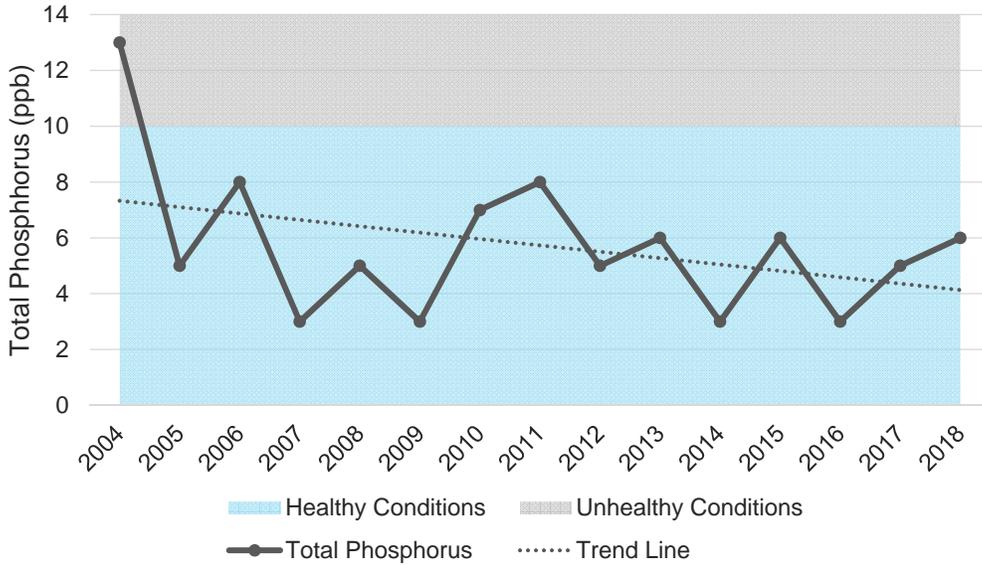
Water Quality. Lake Bellaire is a deep, coldwater lake with moderate water quality. Shallow areas, such as the northeast part of Lake Bellaire, suffer from lower water quality due to increased nutrients and reduced water clarity.

Between 2004 and 2018, phosphorous in the lake has remained at relatively healthy levels. Phosphorus levels taken at the spring overturn have been declining since 2004, indicating a positive trend towards reduced phosphorus in the water (Figure 4).

However, evidence of human impact can be seen through the average total nitrogen level and chloride levels monitored by the Tip of the Mitt Watershed Council between 1992 and 2016. Total nitrogen has generally been decreasing; however, it has remained above the threshold for natural lake levels during this time and chloride has been increasing since 1992 (Figure 5). Non-natural sources of these nutrients can enter the lake sources such as the runoff from fertilized lawns and croplands, failing septic systems, animal manure, road salt, and water softeners.

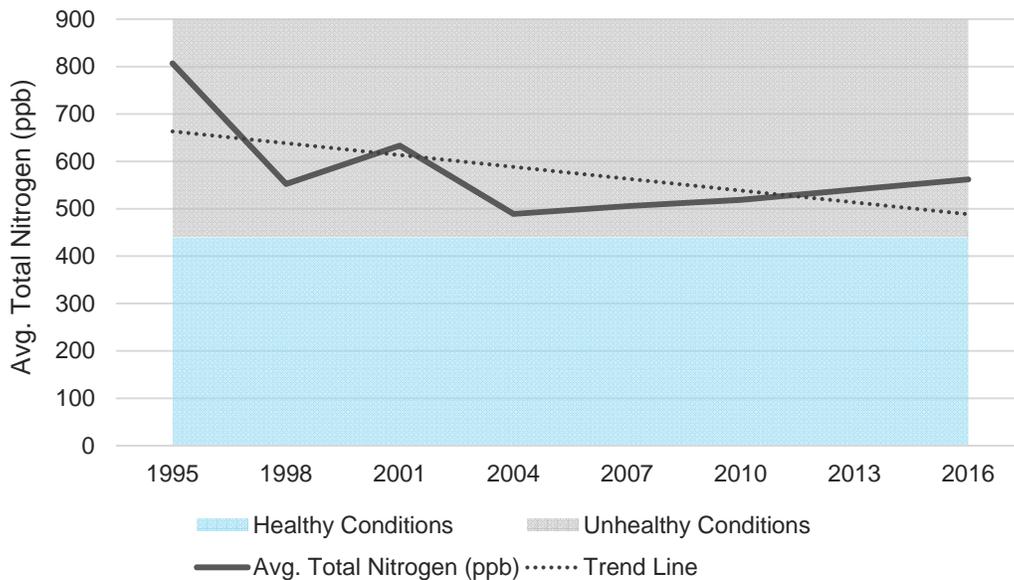
The study *A Profile of Water Quality: Lake Bellaire* found that water quality problems in Lake Bellaire result from, "algal nutrients in watershed runoff, atmospheric deposition, lakeshore septic tank and lawn fertilization, the Bellaire Village Sewage Treatment Plant, and releases from bottom sediments." Therefore, these sources contribute to additional nutrients in the water and impact the amount of algae that can grow.

Figure 4. Phosphorus Levels in Lake Bellaire, 2004-2018



Source: "MiCorps Data Exchange," Michigan Clean Water Corps, 2018. data.micorps.net

Figure 5. Total Nitrogen Levels in Lake Bellaire, 1995-2016



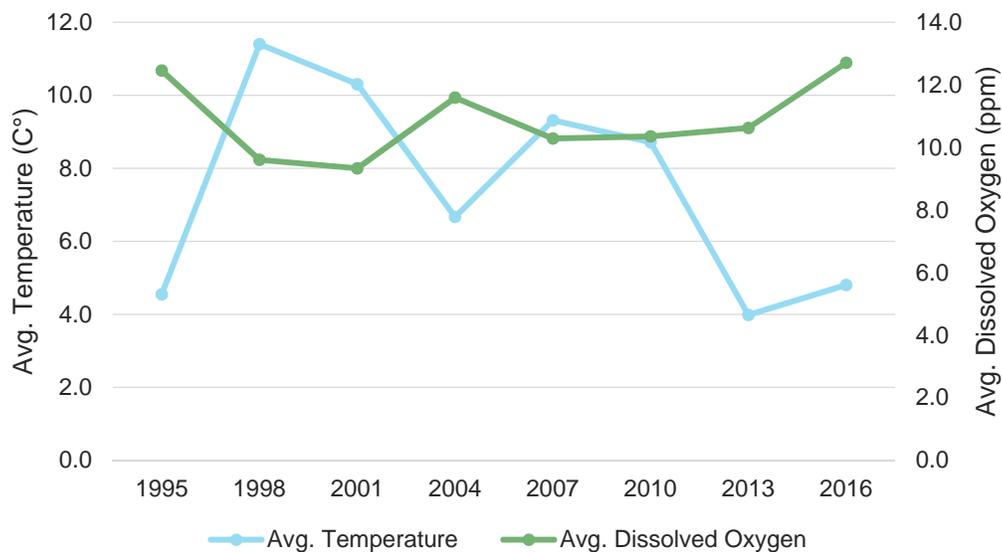
Source: "Comprehensive Water Quality Monitoring (CWQM)," Tip of the Mitt Watershed Council, 2016. watershedcouncil.org/comprehensive-water-quality-monitoring.html

Fishery. Lake Bellaire supports a cold water fishery. The Michigan Department of Natural Resources considers Lake Bellaire to have some of the best trophy smallmouth bass fishing in the area.

Tributaries. There are two named tributaries, the Intermediate River (Lake Bellaire’s major inflow from the Intermediate River) and Grass Creek (flowing into the north end of the North Arm).

Intermediate Lake is situated between Hanley Lake and Lake Bellaire. It was once known as Central Lake. Intermediate Lake is a moderately productive lake and has physical, chemical and biological characteristics similar to Lake Bellaire. Water temperature and dissolved oxygen in Intermediate Lake have closely followed the trends observed in Lake Bellaire (Figure 6). Overall, Intermediate Lake has remained slightly warmer overall than Lake Bellaire. It contains one of only two islands in the Chain of Lakes Watershed. Intermediate Lake is a shallow, warm, middle-aged lake. It has moderate amounts of nutrients and can support many fish and other organisms.

Figure 6. Temperature and Dissolved Oxygen in Intermediate Lake



Source: “Comprehensive Water Quality Monitoring (CWQM),” Tip of the Mitt Watershed Council, 2016. watershedcouncil.org/comprehensive-water-quality-monitoring.html

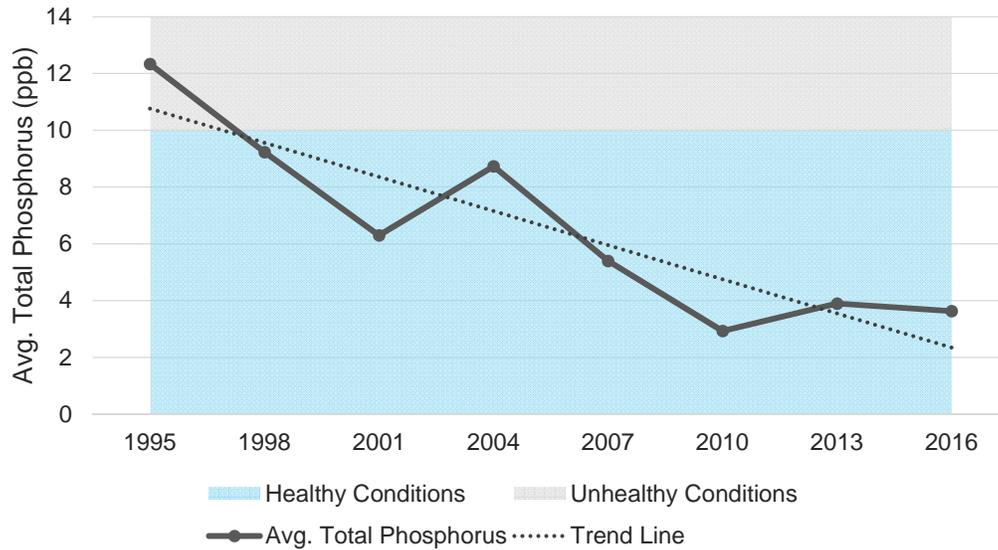
Area. With a surface area of 2.38 square miles, it has a maximum depth of 80’ feet.

Shoreline. Intermediate Lake is 8.0 miles long and has 14.7 miles of shoreline. Most of the shore is gravelly-sand. Rocky areas are present in a few places. There are mucky/marshy areas near the lake’s north end.

Water Quality. Intermediate Lake has moderate water quality. Phosphorous greatly declined between 1995 and 2016 and has remained relatively low overall, helping limit the amount of algae that can form in the lake (Figure 6). Nitrogen levels have been

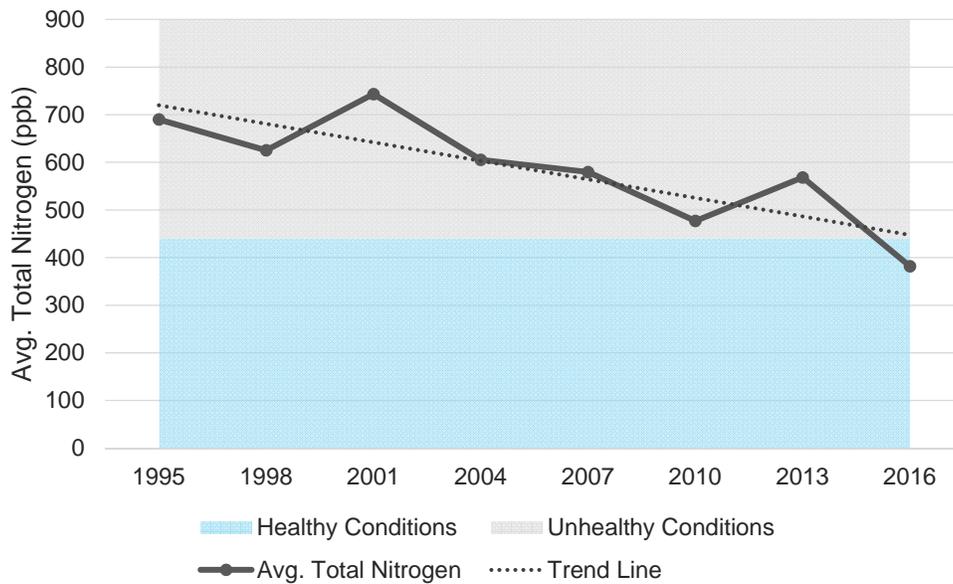
decreasing since 1995. Historically, these levels were above the threshold for a natural lake; however, in 2016, these levels returned to a healthy status (Figure 7). Chloride levels were relatively high between 2004 and 2013, but returned to natural levels in 2013.

Figure 6. Total Phosphorus in Intermediate Lake, 1995-2016



Source: "Comprehensive Water Quality Monitoring (CWQM)," Tip of the Mitt Watershed Council, 2016. watershedcouncil.org/comprehensive-water-quality-monitoring.html

Figure 7. Total Nitrogen in Intermediate Lake, 1995-2016



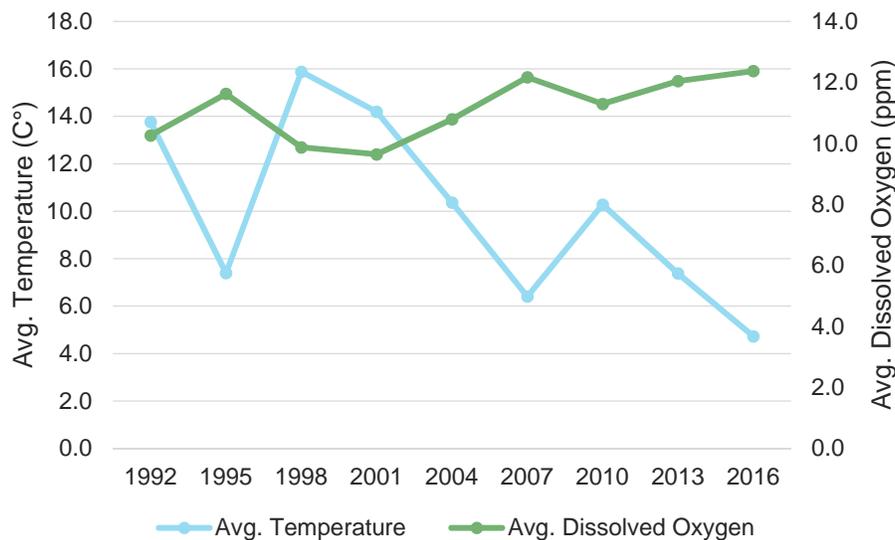
Source: "Comprehensive Water Quality Monitoring (CWQM)," Tip of the Mitt Watershed Council, 2016. watershedcouncil.org/comprehensive-water-quality-monitoring.html

Fishery. Intermediate Lake supports a warm water fishery including rock bass, perch, northern pike, smallmouth bass, walleye and sunfish.

Tributaries. 19 tributaries are present along Intermediate Lake. Major tributaries include the Intermediate River inflow from Hanley Lake, Fisk Creek, and Openo Creek.

Clam Lake is situated between Lake Bellaire and Torch Lake. Clam Lake is the narrowest and shallowest of the four lakes. Despite its shallow depth, it was still classified as an oligotrophic lake by the Cooperative Lakes Monitoring Program in 2018. Historically, Clam Lake has had warmer temperatures; however, its overall temperature has significantly dropped in recent years (Figure 8).

Figure 8. Temperature and Dissolved Oxygen in Clam Lake



Source: "Comprehensive Water Quality Monitoring (CWQM)," Tip of the Mitt Watershed Council, 2016. watershedcouncil.org/comprehensive-water-quality-monitoring.html

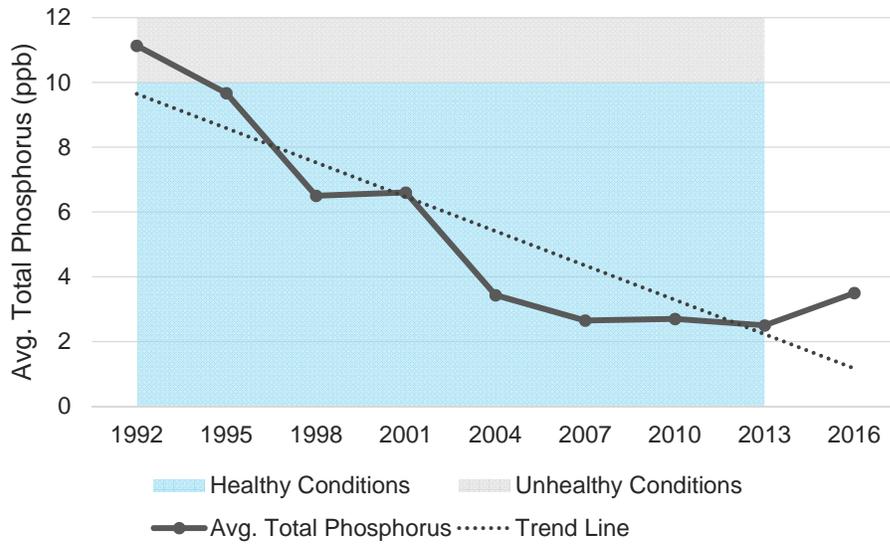
Area. Covering less than one square mile and less than one-half mile wide, the average depth is 27 feet.

Shoreline. Clam Lake is 3.25 miles long and has 8.5 miles of shoreline. About 70% of the shoreline has aquatic plant growth. The bottom is sand, muck and gravelly-sand. Due to wave action from wind and boats, the shoreline is severely eroding. Property owners have installed rock riprap and metal seawalls along much of the shore.

Water Quality. The lake's water quality is moderately high. Wind and boat action stir up sediments which reduces water clarity. High speed boat traffic in this lake has caused significant shoreline erosion. Phosphorous levels have significantly dropped between 1992 and 2016 (Figure 9). However, chloride and total nitrogen levels have remained near the threshold levels for a natural lake environment. While total nitrogen levels has slightly decreased overall between 1995 and 2016, chloride has risen. Chloride is often

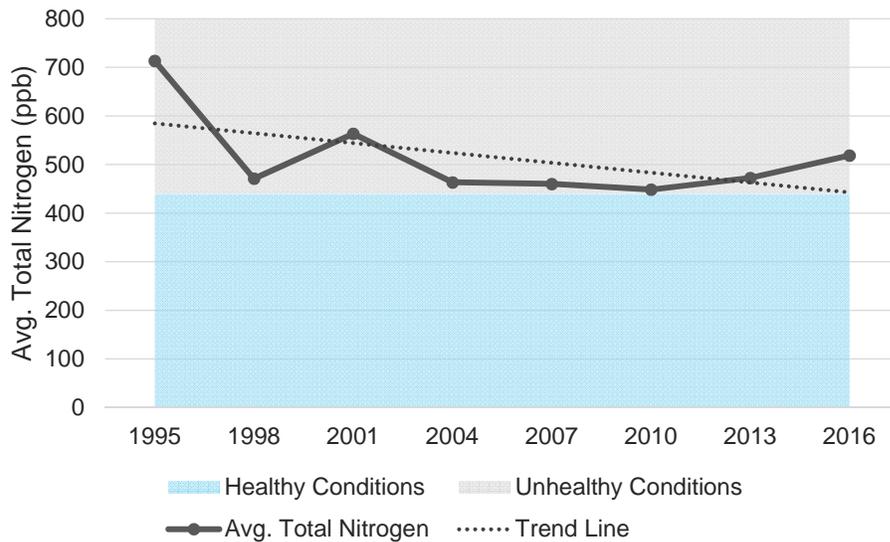
associated with human activity in a watershed, as many personal products such as de-icing salts, lawn fertilizers, and water softener salts contain this compound.

Figure 9. Total Phosphorus in Clam Lake, 1992-2016



Source: "Comprehensive Water Quality Monitoring (CWQM)," Tip of the Mitt Watershed Council, 2016. watershedcouncil.org/comprehensive-water-quality-monitoring.html

Figure 10. Total Nitrogen in Clam Lake, 1992-2016



Source: "Comprehensive Water Quality Monitoring (CWQM)," Tip of the Mitt Watershed Council, 2016. watershedcouncil.org/comprehensive-water-quality-monitoring.html

Fishery. Clam Lake supports a warm water fishery with many species such as longnose gar, northern pike, yellow perch, bullhead, bass, bluegill, suckers, shiners, minnows and muskellunge. Record muskies have weighed-in at more than 47 pounds.

Tributaries. The only named tributary to Clam Lake is the Grass River, the inlet from Lake Bellaire. There are four other small streams.

RIVERS

Intermediate River connects Intermediate Lake on the north to Lake Bellaire in the south. It flows through the Village of Bellaire and forms the boundary between Forest Home Township and Kearney Township.

Length. Intermediate River is 4.25 miles long (other segments in the Upper Chain of Lakes are also referred to as Intermediate River).

Shoreline. The shoreline length is 8.8 miles, because of a backwater area behind the dam. The western shore has been developed for residential homes. Most of the eastern undeveloped shore is owned by Antrim County and is included in the Antrim County Airport property.

Flow. The river's average flow is 144.6 cubic feet per second at M-88 just downstream from Intermediate Lake and 240 cubic feet per second at the river mouth. The big difference between Intermediate Lake and M-88 is due to the discharge of the Cedar River from the east.

Clam River is the western outlet of Clam Lake which flows into Torch Lake.

Length. Clam River is less than 0.25 miles long.

Shoreline. The banks of Clam River have been developed for commercial and residential uses. Most of the natural shoreline has been replaced by metal seawalls or rock riprap. Natural shoreline exists on either side of the bridge.

Flow. The river's average annual flow at East Torch Lake Drive is 335.8 cubic feet per second.

Grass River is located between Lake Bellaire and Clam Lake. The Grass River is one of the most scenic spots along the Chain of Lakes Watershed. Most of the river is protected as the Grass River Natural Area, owned by Antrim County and managed by the Grass River Natural Area, Inc.

Length. It is 2.5 miles long and is navigable by moderate-sized watercraft.

Shoreline. Most of the river is undeveloped and it flows through an expansive marsh, wet meadow, fen and dense conifer swamps. The bottom is sandy. The natural shoreline is easily eroded by wave action, so it is designated as a no-wake zone.

Tributaries. Three primary tributaries include Shanty Creek, Cold Creek and Finch Creek which contribute organic material to the Grass River, resulting in silt and muddy conditions near the mouth.

Fishery. Grass River is a warm water stream with a slow, non-turbulent current. Warm water fish such as pike, perch, bass, bluegill, sunfish, and minnows. It is listed on the Michigan Department of Natural Resources trout streams due to the presence of migratory trout heading to and from the three tributaries.

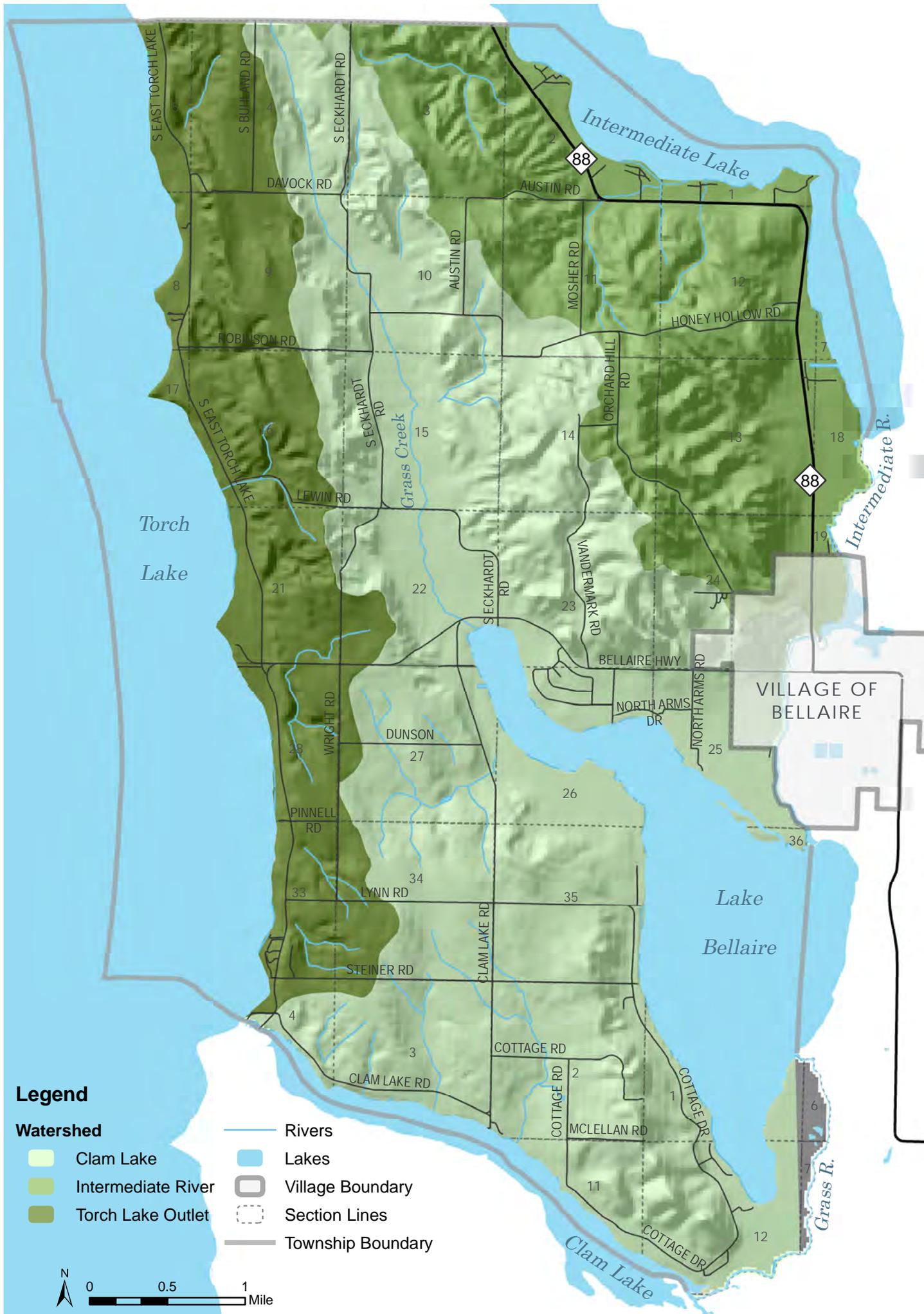
Flow. The river’s average annual flow just downstream from Lake Bellaire is 268.3 cubic feet per second.

Table 1. Description of Lakes Bordering Forest Home Township

| Name of Water Body | Total Surface Area (sq. mi.) | Maximum Depth (feet) | Volume (gallons) | Total Shoreline Length (miles) | Shoreline Length in FHT (miles) |
|---------------------------|-------------------------------------|-----------------------------|-------------------------|---------------------------------------|--|
| Torch Lake | 28.86 | 302 | 362 billion | 41.4 | 6.9 |
| Lake Bellaire | 2.89 | 95 | 25 billion | 11.5 | 8.2 |
| Intermediate Lake | 2.38 | 80 | 16 billion | 14.7 | 4.1 |
| Clam Lake | 0.68 | 27 | 1.8 billion | 8.5 | 3.4 |

Source: Fuller Douglas R, “Fish of the Elk River Chain of Lakes- A Watershed Perspective” (Petoskey: Tip of the Mitt Watershed Council, 2001).





SEAST TORCH LAKE

S BLUE RND RD

S SECKHARDT RD

DAVOCK RD

AUSTIN RD

Intermediate Lake

88

10

AUSTIN RD

MOSHER RD

HONEY HOLLOW RD

ROBINSON RD

S SECKHARDT RD

Grass Creek

ORCHARD HILL RD

Torch Lake

SEAST TORCH LAKE

LEWIN RD

15

VANDERMARK RD

88

Intermediate R.

17

S SECKHARDT RD

14

3

18

21

22

SECKHARDT RD

BELLAIRE HWY

24

VILLAGE OF BELLAIRE

DUNSON

27

NORTH ARMS DR

25

NORTH ARMS RD

26

Lake Bellaire

33

PINNELL RD

34

LYNN RD

35

36

STEINER RD

4

3

CLAM LAKE RD

COTTAGE RD

2

COTTAGE RD

MCLELLAN RD

11

COTTAGE DR

1

Clam Lake

COTTAGE DR

12

Grass R.

GROUNDWATER RESOURCES

Forest Home Township is fortunate to have large supplies of high-quality groundwater that have been stored in the underlying aquifer since glaciers deposited it more than 10,000 years ago. Groundwater, though unseen, makes up one quarter of our freshwater resources. It fills in the pores and openings between soil particles, gravel, and rock layers. According to the Institute for Water Quality Research, groundwater can move up to 50 feet per day in some soils like sand and coarse gravel, but much slower through clay soils.

Groundwater is the sole drinking water supply in Forest Home Township. It is also the major source of water for artesian springs, seeps, wetlands, and lakes. Groundwater is the source of life for aquatic plants and animals, as well as humans.

Groundwater recharge areas occur throughout the township. Topography of the land surface in conjunction with specific soil types results in areas of standing water or soggy ground. Some of these depressions may be seasonally or permanently wet.

WETLAND RESOURCES

Forest Home Township is also fortunate to have significant areas of undeveloped wetlands along the many lakes and streams found in the Township (Map 4).

Protected Wetlands. Many wetland areas have been protected to ensure high water quality and habitat for species such as the common loon and bald eagle.

Grass River. Grass River Natural Area

Intermediate River. Grass River Natural Area- Hunt Club property

Lake Bellaire.

- North Arm: Forest Home Township Loon Nursery Preserve, Grand Traverse Regional Land Conservancy Golden Days Loon Preserve, Fisher Conservation Easement, and Lessard Conservation Easement;
- South Arm: Grass River Natural Area

Potential Wetland Restoration. Because wetlands are so important for maintaining high water quality in lakes, potential restoration areas were also identified by the Michigan Department of Environment, Great Lakes, and Energy.

Intermediate Lake. South side near M-88.

Lake Bellaire. East side near Grass River.

Clam Lake. North side along Clam Lake Road and Cottage Road.

Torch Lake. Thin areas along the eastern lakeshore.

Seasonal Wetlands. In some cases, bedrock close to the ground surface prevents the precipitation from percolating into the groundwater table creating wet areas located at a distance from the lakes and streams. Sometimes these form small ponds which may have water for only part of the year.

Wetland Classification. Many areas within Forest Home Township can be classified as wetlands. The specific definition of a wetland can and does differ between agencies, levels of government, and individuals. Under Part 303, Wetlands Protection, of the National Resources and Environmental Protect Act (NREPA), 1994 PA 451, wetlands are determined by onsite inspection using three criteria: presence of water, type of soils, and vegetative or aquatic life.

Regulated and Non-regulated Wetlands. Part 303, Wetlands Protection of the NREPA also distinguishes between regulated and non-regulated wetlands based upon size and connection or lack thereof with surface water-bodies.

Not having the resources to conduct an onsite determination of all lands within the township, we have chosen to utilize information from the Antrim County Soil Survey to delineate those areas having a high potential of being classified as wetlands.

Hydric Soils. Soils classified by the Natural Resources Conservation Service (NRCS) as Hydric Soils are those that exhibit wetland characteristics. These soils are developed under conditions sufficiently wet enough to support growth and regeneration of hydrophytic vegetation. These soils are often found in the base of valleys, around creeks, and the smaller lakes within the township and generally consist of "heavy" organic soils.

Hydric Inclusions. Some areas may have soils with hydric inclusions. In this case, there may be a small area of hydric soil included in a larger area of non-hydric soil. When this occurs, the site should be examined in greater detail when making site specific development decisions.





Legend

-  Rivers
-  Township Boundary
-  Village Boundary
-  Section Lines
-  Potential Wetland Restoration
-  Wetlands



SOILS

Knowledge of soils is important in determining which areas have suitability or limitations for various types of uses. Different properties of each soil type provide useful information regarding slope, suitability for farming, forestry production, and ability to use onsite septic waste disposal systems. In addition, information about the corrosiveness of soil and potential for contraction and expansion provides guidance as to the types of materials that should be used for sewer and water lines.

The Natural Resources Conservation Service (NRCS) Web Soil Survey provides access to the largest natural resource in the world. It was created through a partnership of federal, regional, state, and local agencies, along with private entities and institutions. The soils in this database have not been broken down into the greatest possible number of soil units, type, or smallest sized units possible. Although this data should not be solely used for making decisions on an individual site, the information is very useful for drawing conclusions regarding the patterns within the Township.

The Michigan State University Extension Office staff have extensive background in soils and also provided assistance in interpreting and defining the Antrim County Soil Survey and the characteristics of individual soil types.

Table 2. Primary Soils in Forest Home Township

| Soil Name | Drainage | Slope |
|------------------------|--|--|
| Emmet-Montcalm | Generally well drained. | Gently sloping to very steep slopes. |
| Tawas-Ensley-Roscommon | Poorly drained or very poorly drained. | Level to nearly level areas along the lakes, rivers, and creeks. |

Source: "USDA Soil Survey of Antrim County, Michigan," Lansing: Michigan Agricultural Experiment Station, 1974-1976.

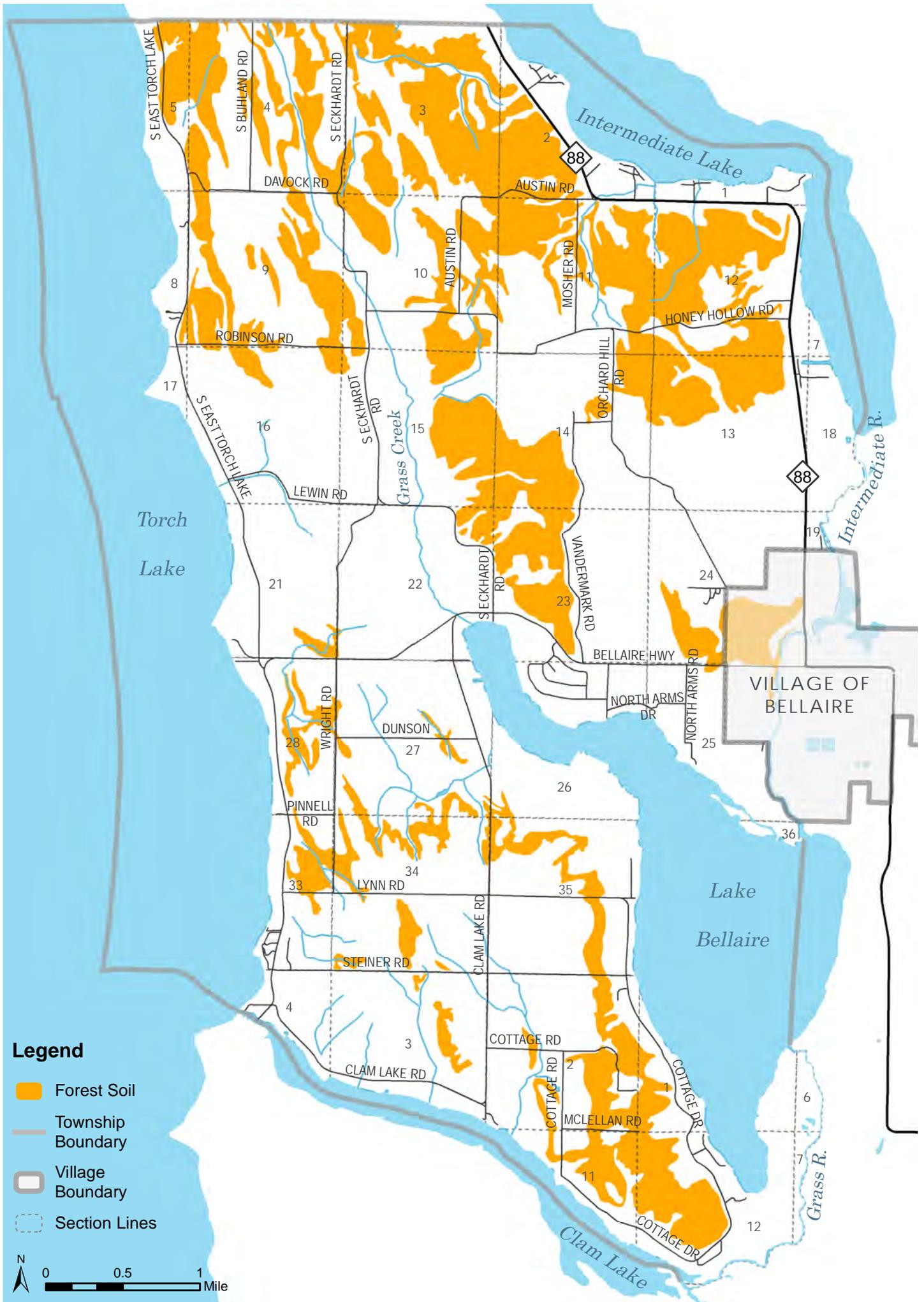
Forest Suitability

The majority of soils in Forest Home Township are rated as being of either national or regional importance for the production of timber (Map 5). The vast majority of the land is rated as "Nationally Important" based on a study conducted by the Prime Forestlands Identification Project in 1982. Mike Meriwether, Antrim County Forester, indicates that the soils in Forest Home Township are considered prime for producing high quality hardwoods such as maple and ash.

Soil largely impacts the type of tree species that will grow in a certain area. Based on the primary soil types in Forest Home Township (Table 2), the Soil Survey of Antrim County recommends planting Red Pine based on the soil conditions of Emmet and Montcalm soil types. This suitability rating is based upon the soil's ability to produce a given amount of wood fiber per

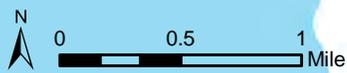
acre per year. Areas that tend to follow small creeks or have organic soils tend to be lands which are wet for a considerable portion of the year and are not suitable for most species of trees. While wet areas tend to hinder tree growth, steep slopes often have the opposite problem as the harvesting of trees can create erosion problems if not undertaken properly.

Although Forest Home Township's forests have a high suitability for producing timber, they are also highly desirable for their aesthetic, recreational, and environmental qualities. Because the Township is surrounded by water sources, the forests provide a buffer for the lakes by offering wetland protection, animal habitats, erosion control, and clean air. In his report *Trees in Antrim County* (2017), Meriwether also identifies an American Chestnut in Forest Home Township as likely the most unique tree in Antrim County. This tree is located in the Walter Kirkpatrick Forest and is approximately 100 years old. Because the chestnut blight wiped almost all of the American Chestnut trees out of their natural range, this tree is a rare find.



Legend

- Forest Soil
- Township Boundary
- Village Boundary
- Section Lines



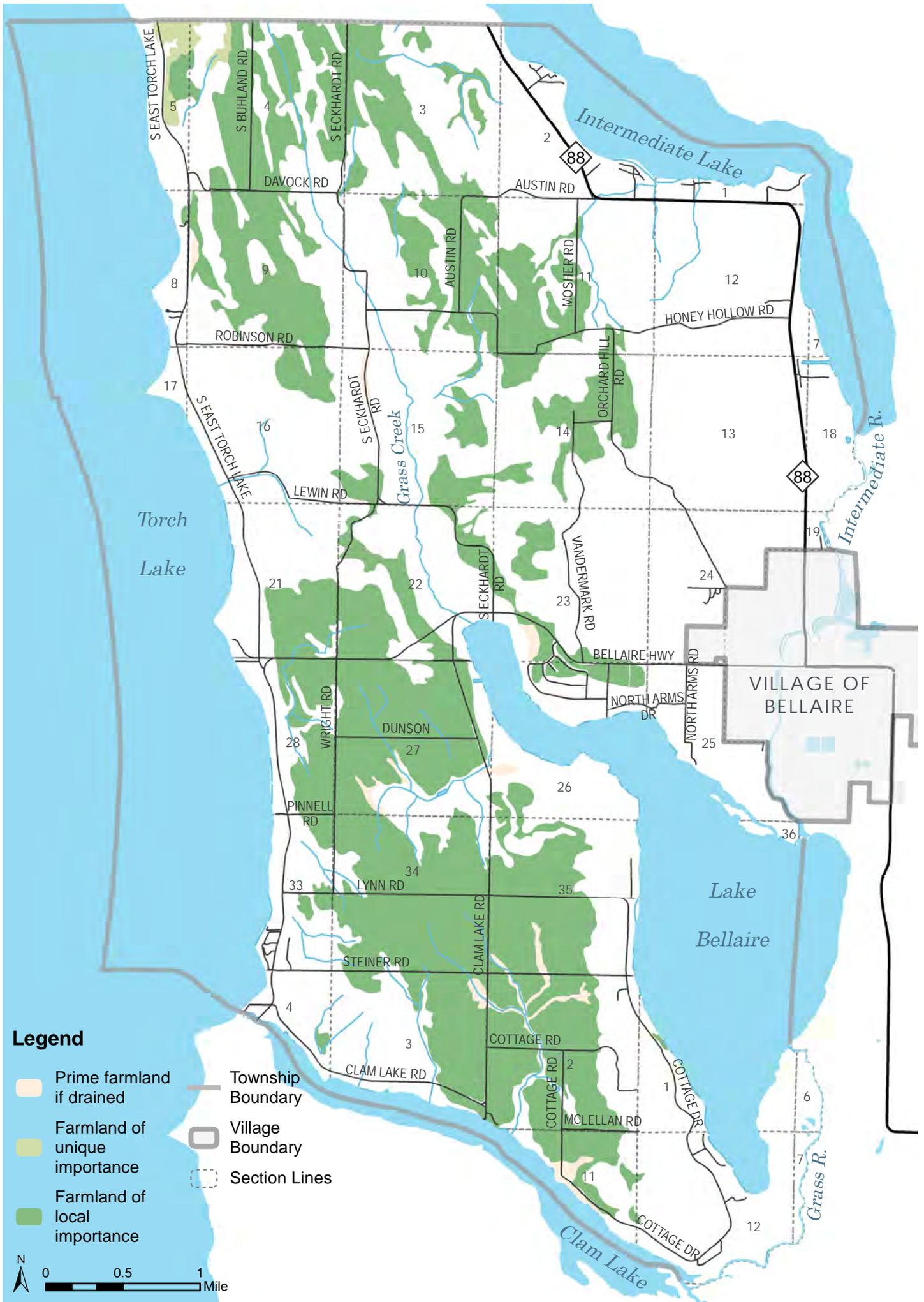
AGRICULTURAL SUITABILITY

The agricultural lands differ in suitability throughout the Township. According to the Michigan State University Extension Office staff, the northern and south- central portions of the township are rated as being of prime importance for agricultural purposes.

Northern Half. The lands in the northern part tend to be better suited to fruit production due to the higher elevations. The elevation provides resistance to early fall frosts and spring warming trends, which can result in fruit trees budding and the buds being frozen by late spring frosts.

Southern Half. The southern portion of the township is flatter and tends to be better suited to row crops and pastures.

The areas with steep slopes are not considered suitable for agricultural purposes due to inability to use modern farm equipment on the steep slopes. Limited areas of steep slopes can be incorporated into a farming operation as pasture lands but are generally better left for tree production purposes.



Legend

- Prime farmland if drained
- Farmland of unique importance
- Farmland of local importance
- Township Boundary
- Village Boundary
- Section Lines



STEEP SLOPES

The topography within a community provides insight about where development should occur without negatively affecting the environment, as well as guidance for accessing those areas (Map 7).

Slope is an indication of the change of elevation over the course of a horizontal distance. Generally, the slope is calculated as the amount of rise or fall over a 100-foot distance and is expressed as a percentage.

Table 3. Relationship of Slope to Development and Access

| Slope | Development | Access |
|--------------|---|--|
| 6% or less | Easy to develop | Easy to access year-round |
| 6%- 12% | Easy to develop | Difficult to reach by road on a year-round basis. Depending upon road width, curve radii and weather conditions, roads can be impassable by many vehicles including emergency equipment such as fire trucks. |
| 12%-20% | Difficult to develop without higher costs | Very difficult to access by road on a year-round basis. The increased speed of water flowing causes severe erosion. |
| 20% or more | Limited or no development | Very difficult to access by road on a year-round basis. May be difficult if not impossible to access by emergency vehicles. |

Source: "USDA Soil Survey of Antrim County, Michigan," Lansing: Michigan Agricultural Experiment Station, 1974-1976.

Erosion. Excessive removal of vegetative cover to provide for road access contributes to greater erosion both during and after construction has been completed on the site. The resulting soil erosion can have a negative impact on water quality through the deposition of sediment into our lakes and rivers.

Accessibility. In addition to the erosion problems, steep slopes present problems with accessing development. As was noted in the section on climate, this area receives a considerable amount of snow fall, as well as cold temperatures. Cold and moisture (rain or snow) on steep roads can place lives and property in danger by hindering access by emergency vehicles.

BUILDING SUITABILITY

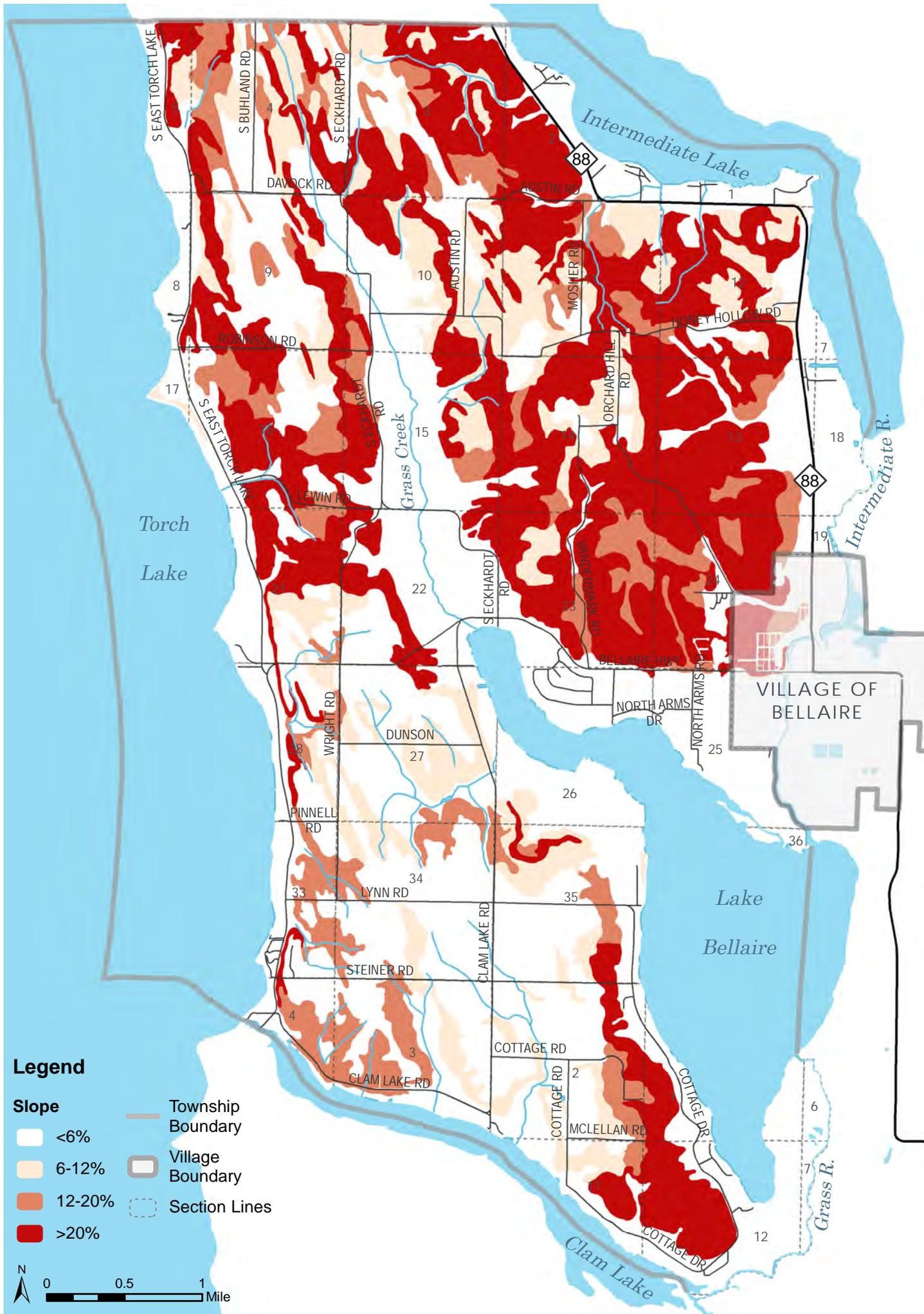
Northern Half- Steep slopes, while found throughout the township, are concentrated in the northern half. These slopes provide a major impediment to creating roads and driveways to access potential building sites. These slopes also have numerous opportunities for lake view residential development.

Southern Half- The southern half of the township contains larger contiguous areas that are composed of soils having slopes with a grade under 12% grade.

The Antrim County Soil Survey determined the maximum slope that will be found for each soil type. Each soil type has the capability of withstanding a given amount of slope before it slumps or erodes, resulting in a more gradual slope.

Actual onsite determinations will be necessary to determine the grade or degree of slope for a specific property.

Topography has been described by the United States Geological Survey in the USGS 7.5' Topographic Quadrangles Maps, which provide the contours at 5-meter intervals. These maps do not provide a specific percentage of slope but a general idea can be obtained based upon the spacing between the topographic contour lines.



S EAST TORCH LAKE
 S BUHLAND RD
 SECKHARDT RD
 DAVOCK RD
 AUSTIN RD
 88
 Intermediate Lake
 ROBINSON RD
 SECKHARDT RD
 GRASS CREEK
 AUSTIN RD
 MOSHER RD
 HONEY HOLLOW RD
 SECKHARDT RD
 LEWIN RD
 ORCHARD HILL RD
 88
 Intermediate R.
 SECKHARDT RD
 VANPOND RD
 BELLAIRE HWY
 TORCH LAKE
 WRIGHT RD
 DUNSON
 NORTH ARMS DR
 NORTH ARMS DR
 VILLAGE OF BELLAIRE
 PINNELL RD
 LYNN RD
 26
 36
 LAKE BELLAIRE
 CLAM LAKE RD
 STEINER RD
 CLAM LAKE RD
 33
 34
 35
 COTTAGE RD
 COTTAGE RD
 MCLELLAN RD
 COTTAGE DR
 CLAM LAKE
 COTTAGE DR
 12
 GRASS R.

SEPTIC LIMITATIONS

Unified Sanitary Code. In 2006, the Antrim County Board of Commissioners approved the Unified Sanitary Code for Antrim, Charlevoix, and Otsego Counties. The code was developed by the Northwest Michigan Community Health Agency- Environmental Health Division (NMCHA). This new code provides for traditional septic systems, as well as for mound systems and advanced treatment systems.

Permits. Because the NRCS Web Soil Survey provides a general overview of soil suitability in the Township, each proposed site must be examined on an individual basis. A permit is required from NMCHA to install a septic system or advanced treatment system.

To prevent residents from drinking contaminated groundwater, the requirement exists for wells to have an isolating layer of clay or similar material to separate the potentially contaminated water from contact with drinking water. A permit is required from NMCHA to install a drinking water well.

Suitability. All of the lands within the Township drain downhill to the lakes surrounding the Township. Due to factors such as slopes, ponding, filtering capacity, and depth to saturated zones, the NRCS Web Soil Survey classifies all soils in the Township as very limited for having septic tank absorption fields. These areas may also allow rapid movement of moisture through the soil, which can result in ground water contamination should fuels, cleaning solvents, herbicides and pesticides, or other materials, spill or be misapplied to the soil. Some of these sites may be appropriate for advanced treatment or mound systems. Each parcel must also be evaluated by a professional in order to determine whether or not it is suitable for a conventional, mound, or advanced treatment system.

Chapter 3 Population and Demographic Trends

HISTORIC POPULATION

Forest Home Township's human resources consist of the people who live in the Township, where they live, and how they earn a living. Using information from the 2000 and 2010 U.S. Census of Population and Housing and the 2013-2017 American Community Survey Estimates, the following patterns in this chapter describe the changes that have been occurring in the population, housing, and economy of the Township.

The information in this chapter attempts to describe who lives in Forest Home Township and how it is changing. It also compares our population to neighboring townships and to Antrim County as a whole.

Throughout its more than 100-year history, Forest Home Township has been a rural township. The population of Forest Home Township is directly linked to its natural resources.

- *19th Century*- The forests were cut for timber and charcoal production. When the cutover lands were converted to farms, the population increased.
- *20th Century*- Trains and highways brought resorters from Chicago, Detroit, and Cincinnati to the hotels and family-operated resorts throughout Antrim County. The seasonal population of the Township increased and gradually more summer cottages were built.
- *21st Century*- More and more summer residents have been retiring to Forest Home Township and becoming year-round residents. Typically, the population of Forest Home Township increases by 50% during the summer months. However, the first decade of the century saw a slight decline in population, probably due to the recession that began in 2007.

CENSUS HIGHLIGHTS

The primary source of data regarding the population in Forest Home Township is the U.S. Census of Population and Housing. The U.S. Census is conducted every ten years and the information provides a snapshot of who we are at the particular time. The Census Bureau collects and compiles data for each person in the location where the respondent claims as his/her normal place of residence.

An additional data source utilized is the American Community Survey (ACS) 5-Year Estimates. This data source provides current estimates for each year, rather than once every 10 years like the Census. The estimate is based on a survey sent to a small sample of the population on a rotating basis. Therefore, it is a useful supplement to the U.S. Census to gain insights on general trends in the community. However, it should be kept in mind that this data is an estimate and may not provide an exact representation of the Township.

Demographic data is information not only about the numbers of people, but also characteristics of the people: the age of the population, the makeup of families or households, their income levels, housing data, and related information.

In 2017, the total population of Forest Home Township was estimated to be 1,553, or 6.7% of the total population of Antrim County. This is an approximately 10.9% decrease from 2010, when the population of 1,720 accounted for about 7.3% of the County. From 1980 to 2000, the Forest Home Township population increased by 63.8 % (not including the portion in the Village), but declined by 16.4% from 2000 to 2017.

Table 4. Historic Population (1900-2017*)

| Year | Forest Home Township Population |
|-------------|--|
| 1970 | 1,080 |
| 1980 | 1,333 |
| 1990 | 1,410 |
| 2000 | 1,858 |
| 2010 | 1,720 |
| 2017* | 1,553 |

*Estimated from the 2013-2017 American Community Survey 5-Year Estimates

Source: "U.S. Census of Population and Housing," Washington: U.S. Dept. of Commerce. 2000 & 2010.

Table 5. Census Highlights for Forest Home Township in 2017

| 2017 ACS | Forest Home Township |
|--------------------------|-----------------------------|
| Total Population | 1,553 persons |
| Median Age | 56.9 years |
| Marital Status | 60.7% married |
| Households | 781+ |
| Average Household Size | 2.2 persons |
| Labor Force- Employed* | 656 persons |
| Labor Force- Unemployed* | 35 persons |
| Median Household Income | \$59,583 |

* Labor Force-population 16 years and over

Source: 2013-2017 American Community Survey 5-Year Estimates.

Much of the detailed information regarding the residents of Forest Home Township includes information about those residents of the Village of Bellaire residing within the geographic boundaries of Forest Home Township. The population information for the portion of the Village located within Forest Home Township has been separated out from the Township data where

noted. However, information such as age, nationality, and other detailed data has not been eliminated by the Census Bureau when tabulating data for the Township.

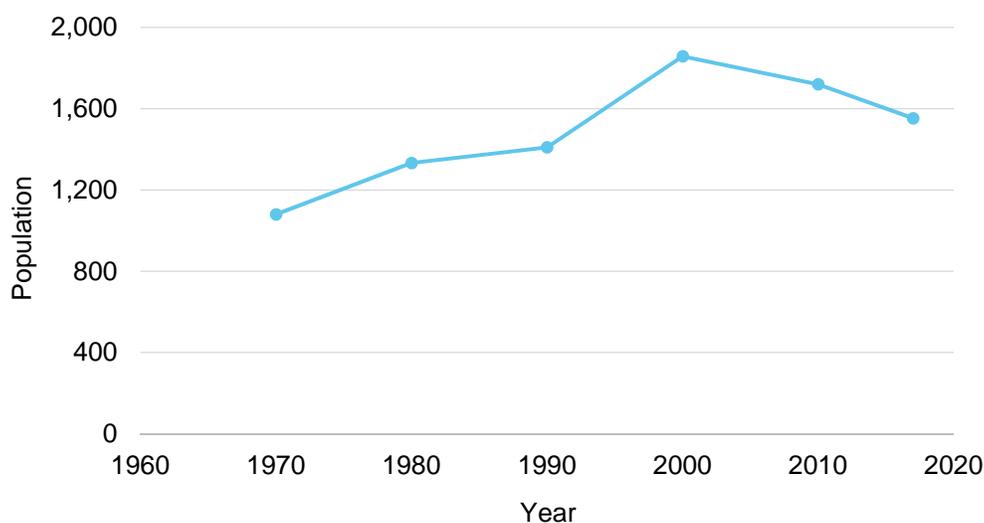
Detailed information exists for the Village of Bellaire as a separate entity, but since one portion of the Village is located in Forest Home Township and the other portion is located in Kearney Township, it is not possible to break down which portion of the Village information applies to each of the two townships.

POPULATION CHARACTERISTICS

Permanent Population

From 1960 until 2000, Forest Home Township experienced an increase of year- round residents every decade. The trend of population and percentage increase slowed between 1980 and 1990, with an increase of 5.8% and 77 persons. However, considerable growth occurred between 1990 and 2000, with an increase of 31.8% and 448 persons. According to the 2000 Census, the population of Forest Home Township was 1,858, but declined slightly to 1,720 by 2010. The ACS estimated that the population continued to decline in 2017.

Figure 11. Permanent Population Trends, 1960 – 2017*



*Estimate from the 2013-2017 American Community Survey Estimates 5-Year Estimates

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce. 2000 & 2010.

Seasonal Population

Seasonal population is a function of the number of seasonal housing units, as well as the number of rental units and temporary lodging facilities in the Township, including campgrounds. Most of the Township's seasonal population resides in their second homes, while a small number utilize cabins, other rental accommodations, or stay with friends and relatives.

Seasonal residents are not included in much of the information that follows because the Census Bureau does not have a good method of accurately counting the seasonal residents or determining the characteristics of those persons who declare some other location as their normal place of residence. Estimates of the total seasonal residents during various times of the year are based on housing information from the Census and studies of seasonal residents and visitors to the northwest lower peninsula of Michigan, according to Larry Sullivan, Planning Consultant.

The numbers of persons present in Forest Home Township on a daily basis vary considerably by season and are impacted by the weather during each season.

Summer- A wet, rainy summer may reduce the amount of time second home owners will spend in Forest Home Township during those months. Hot, humid weather for a continued period of time during the summer and fall months will result in people taking advantage of second homes or rental cabins. Seven golf courses are located nearby in Kearney and Custer Townships.

Winter- An early, harsh winter may result in many residents leaving for warmer climates. With the presence of Shanty Creek and Schuss Mountain resorts and ski areas nearby, weekend use of dwellings in Forest Home Township can increase when the conditions are favorable for skiing.

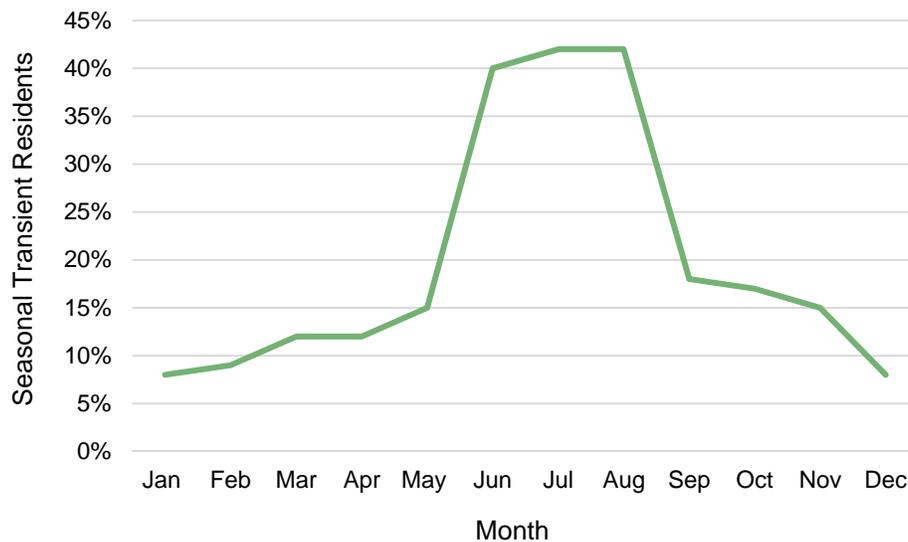
Peak Population

The peak population is the sum of permanent and seasonal residents staying overnight in Forest Home Township. The peak monthly population periods generally occur during the months of June, July, and August, with seasonal residents increasing the total population by approximately 41% (Figure 12).¹ The peak monthly population differs substantially from the peak days or peak weekends in the Township. The peak daily population occurs during the holiday periods such as Memorial Day weekend, Fourth of July weekend, and Labor Day weekend.

Studies conducted in northern Michigan in the past have found that the peak monthly total population is generally about 1.4 times the year-round population (Table 6). The peak daily population is estimated from the number of dwelling units, rental units, and campsites within the community. Forest Home Township contains few rental units or campgrounds. The assumption is that 100% of the housing units are occupied by the average number of persons per household. In many instances, relatives and friends fill the spare bedrooms resulting in an increase in the number of persons per household, but that is balanced out by the number of units not occupied during the year.

¹ Northwest Michigan Seasonal Population Analysis, 2014. *MSU Land Policy Institute for Networks Northwest*. Traverse City, MI.

Figure 12. Seasonal Transient Residents in Antrim County, 2014



Source: "Northwest Michigan Seasonal Population Analysis," Michigan: Michigan State University Land Policy Institute, 2014.

Table 6. Comparison of Permanent Population to Peak Population

| Year | Permanent Population | Peak Day Seasonal Population | Peak Month Seasonal Population |
|------|----------------------|------------------------------|--------------------------------|
| 2000 | 1,858 | 3,205 | 2,601 |
| 2010 | 1,511 | 3,324 | 2,115 |

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000 & 2010.

Based on data from the Northwest Michigan Seasonal Population Analysis in 2014, Antrim County experiences an annual average 26% increase in its permanent population due to seasonal fluctuations. Month-to-month changes are significant and, as indicated above, will be affected by weather and local amenities. In Antrim County, the greatest increases are in the months of June, July, and August (64%), while the smallest increase is in January and February (8%). Applying these percentages to Forest Home Township, the total 2017 population may increase from 1,553 to about 2,562 during the peak summer months.

Population Distribution

With 26.6 miles of shoreline, seasonal residents have a considerable impact on the population levels and economy of Forest Home Township and the Village of Bellaire. With changes in State tax laws, property owners must choose which of their residences will be declared as their homestead/ permanent residence, known as the Homeowner's Principal Residence Exemption.

By owning and occupying a primary residence, homeowners are exempt from a portion of the operating tax for local schools. Of the 1,020 homesteads in the Township in 2016, 632 were located inland and 388 were located along the shoreline.

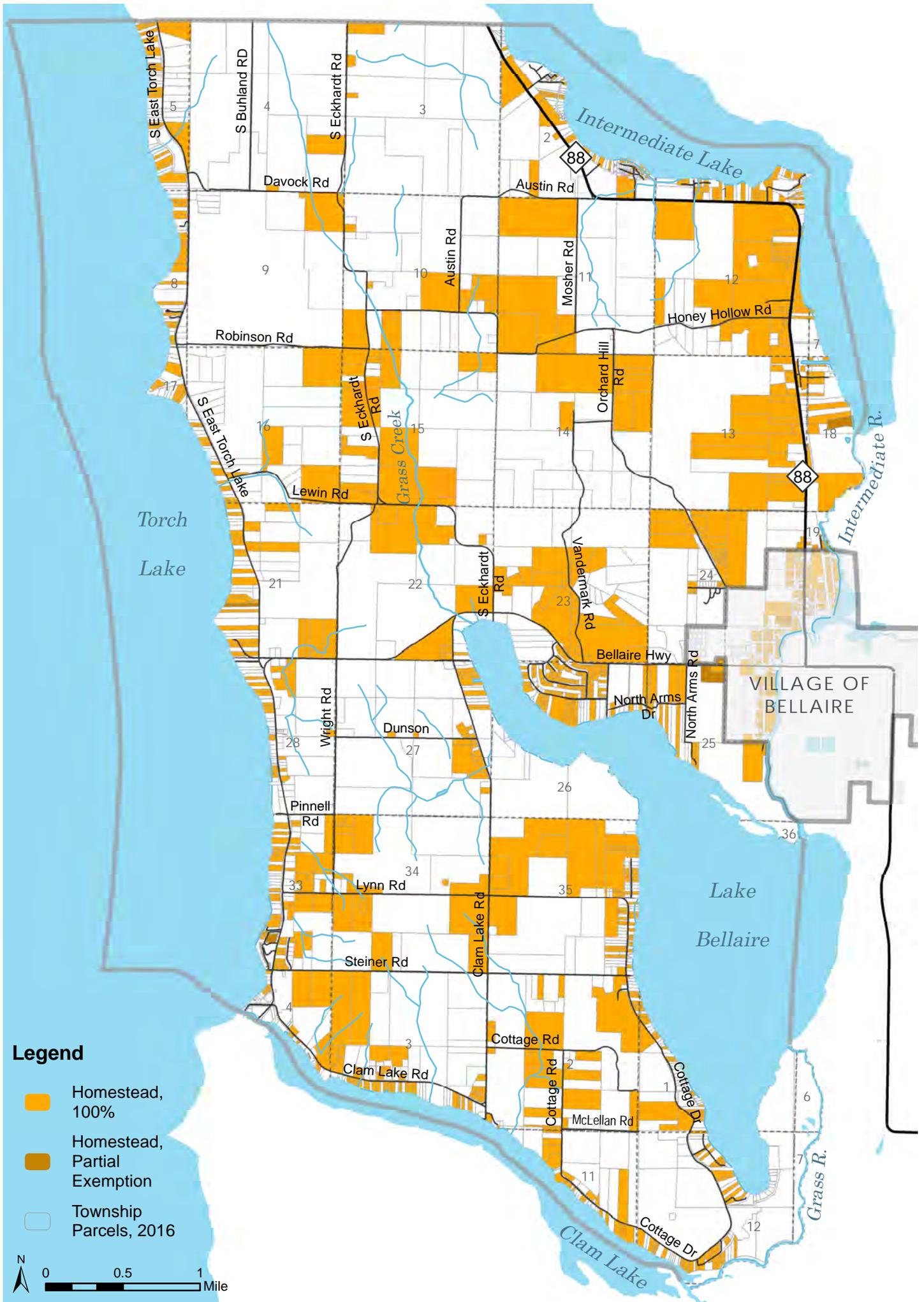
In the five-year period between 2007 and 2012, the percentage of shoreline and inland homesteads remained the same, with inland homesteads accounting for 59% of the total homesteads and shoreline homesteads accounting for 41% of the total. Although the percent distribution of inland and shoreline homesteads remained the same from 2007 to 2012, the number of total homesteads increased overall.

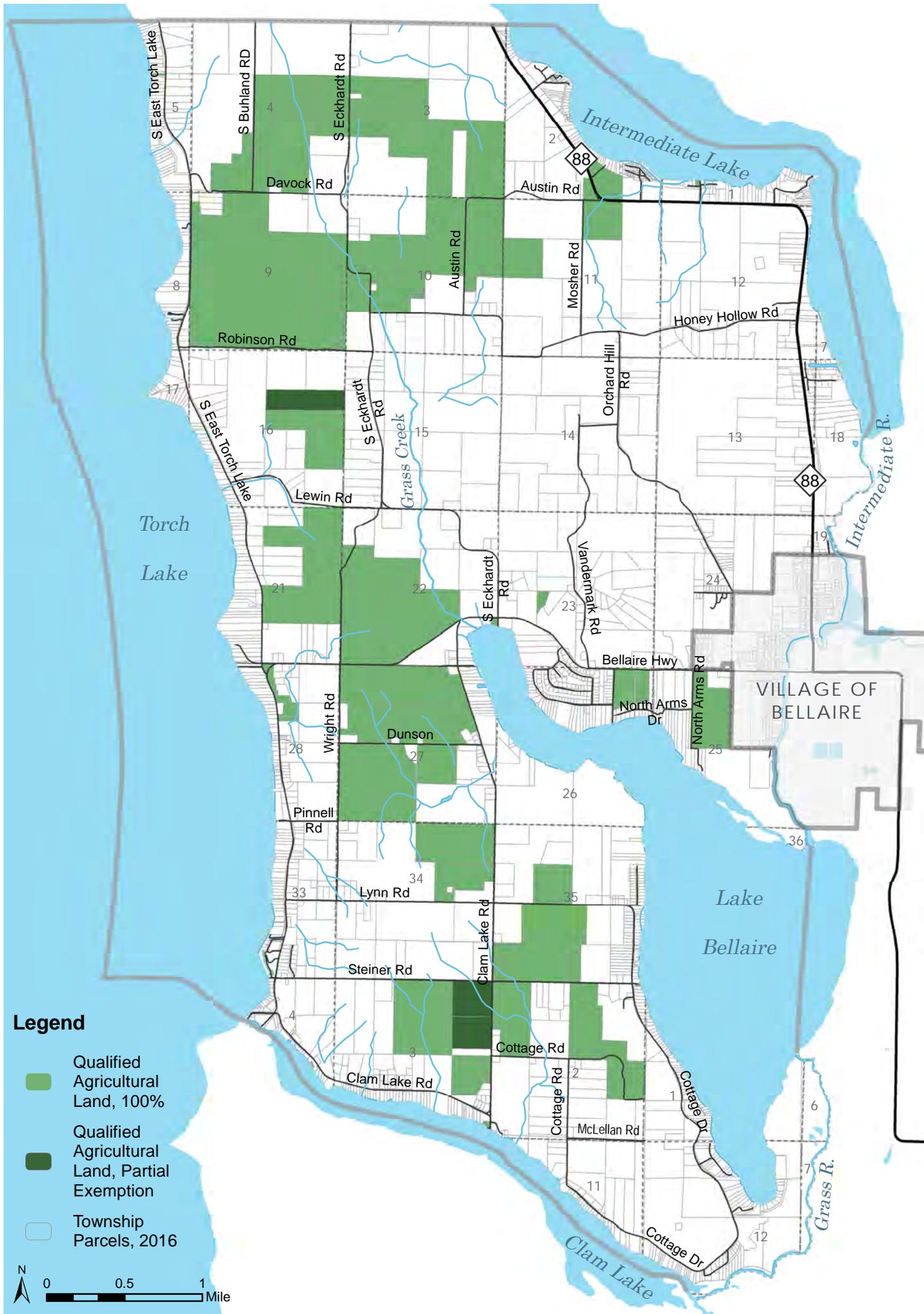
Between 2012 and 2016, the total number of homesteads decreased by 55%. Inland homesteads comprised a greater percentage of the total homesteads (62%), while shoreline homesteads greatly decreased as part of the total (38%). However, both inland and shoreline homesteads decreased in number overall since 2012. This overall decrease in homesteads in the Township may correspond to the decrease in population estimated from 2010 to 2017. The distribution parcels used as primary residences in the Township is depicted on Map 8.

Table 7. Shoreline and Inland Homesteads

| Location of Homesteads | Number (2007) | Percent (2007) | Number (2012) | Percent (2012) | Number (2016) | Percent (2016) |
|-------------------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|
| Inland | 862 | 41% | 945 | 41% | 632 | 62% |
| Shoreline | 1,231 | 59% | 1,336 | 59% | 388 | 38% |
| Total Homesteads | 2,093 | 100% | 2,281 | 100% | 1,020 | 100% |

Some properties in the Township also receive an exemption from certain school operating millage due to their status as qualified agricultural property. Although this exemption is similar to the principal residence exemption described above in that it also provides exemption from local school operating taxes, these exemptions have different requirements. In 2016, 67 parcels in the Township received exemption as qualified agricultural property. Despite the relatively few parcels receiving this exemption compared to the principal residence exemption, they are comparable in total acreage. Parcels with an agricultural exemption comprise approximately 3,437 acres, while those with principal residence exemption comprise approximately 4,044 acres. The locations of qualified agricultural parcels are depicted in Map 9.





Household Size

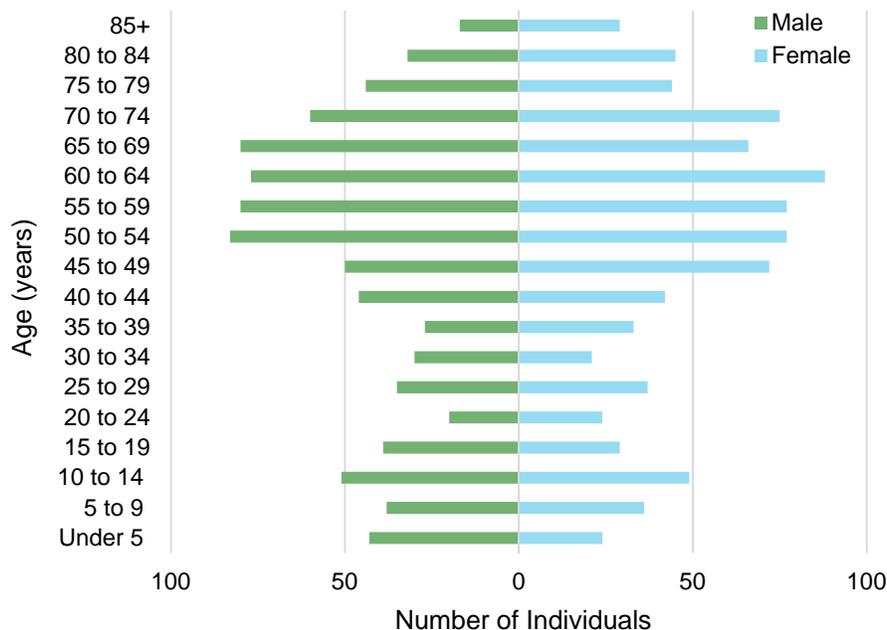
The number of persons per household in Forest Home Township has declined from 2.4 persons per household in 2000 to 2.2 persons in 2010. This decline remained relatively steady in 2017 at 2.1 persons per household. Although the number of persons per household has been decreasing since 1980, the rate appears to be slowing in recent years.

Population by Age and Gender

The number of persons in each age category (Childhood, Family-Forming, Empty Nesters, and Retired & Elderly) indicates the direction the age of the population is moving. A population in the childhood years frequently results in higher numbers of persons in an age group under 19 years. A higher percentage of persons in the 20 to 39 age group indicates a higher percentage of persons in the family-forming years. A higher percentage of persons in an age group from 40-59 years indicates a population of “empty nesters,” which includes those who are often still in the working class, but are no longer starting families. Those above 60 years of age and generally indicates an aging population.

Forest Home’s population is greatest in the age groups spanning from 50 to 74 years (Figure 13). These groups are representative of a population transitioning between “empty nesters” and retired. There is also a smaller increase in the 10 to 14-year age group, indicating the presence of some younger families. Overall, male and female groups exhibit similar trends in the number of people per age group. Overall in 2010, the male and female populations were very similar in number (852 and 868, respectively).

Figure 13. 2010 Population by Age and Gender



Source: “U.S. Census of Population and Housing,” Washington: U.S. Department of Commerce, 2010.

POPULATION COMPARISONS

Comparison to Neighboring Townships

Compared to surrounding townships, Forest Home Township's population size is situated relatively in the middle of other communities (Table 8). Its population is larger than Custer and Helena Township, but smaller than Central Lake, Kearney, and Milton Townships. Between 2000 and 2010, Forest Home Township and Central Lake Township population decreased by 2.5% and 7.4%, respectively. All neighboring townships increased in population during this time. However, between 2010 and 2017, Forest Home, Central Lake, Custer, and Helena Townships all experienced decreases in population. Figure 15 illustrates the varying population trends experienced in the region over the last twenty years.

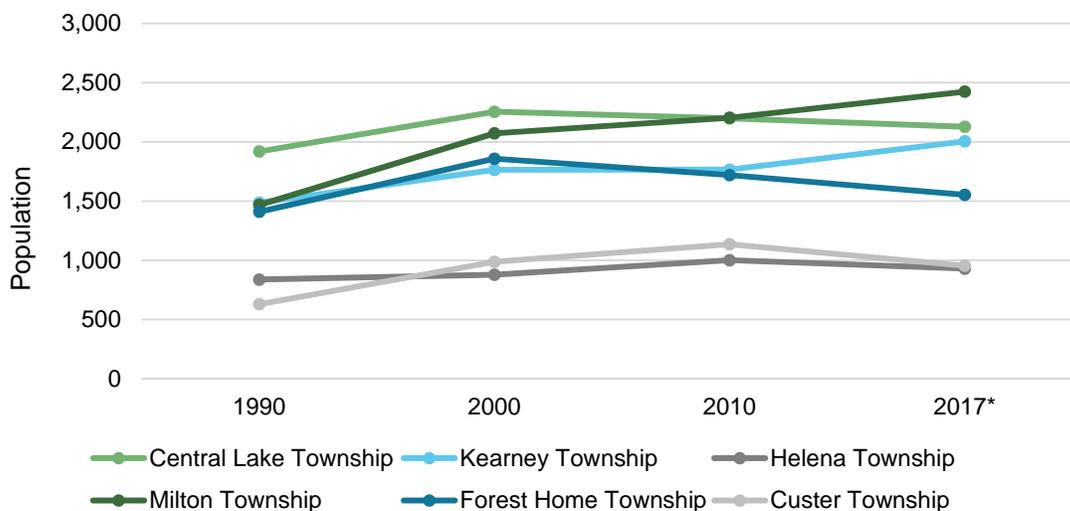
Table 8. Comparison of Forest Home Township to Neighboring Townships

| Township | Population 1990 | Population 2000 | Population 2010 | Population 2017* |
|-----------------------|--------------------|--------------------|--------------------|---------------------|
| Forest Home Township | 1,410 | 1,858 | 1,720 | 1,553 |
| Central Lake Township | 1,919 | 2,254 | 2,198 | 2,127 |
| Custer Township | 630 | 988 | 1,136 | 955 |
| Helena Township | 837 | 878 | 1,001 | 930 |
| Kearney Township | 1,487 | 1,764 | 1,765 | 2,005 |
| Milton Township | 1,468 | 2,072 | 2,204 | 2,424 |

*Estimate from the 2013-2017 American Community Survey 5-Year Estimates

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000 and 2010

Figure 15. Comparison of Population Change, 1990-2017*



*Estimate from the 2013-2017 American Community Survey 5-Year Estimates

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000 and 2010.

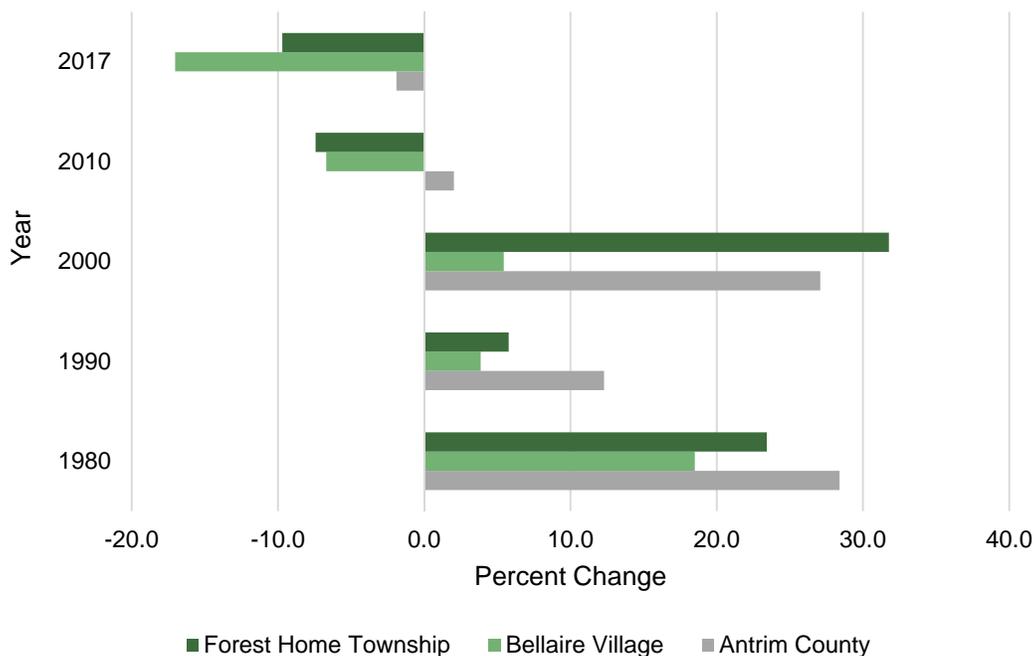
Comparison to Village of Bellaire

The total population of the Village of Bellaire in 2010 was 1,086, a decrease of 78 persons (or about 6.7%) from the 2000 population of 1,164. The portion of the Village of Bellaire that is located within Forest Home Township has experienced a slight decline in population. In 1980, there were 499 persons living in the Village of Bellaire and by 2000 that figure had declined to 492 people. By the 2010 Census, the portion of the Village in Forest Home Township had a population of 448 persons. The population of that portion of the Village located in Kearney Township, though larger than that in Forest Home, also declined somewhat to 638 persons, according to the U.S. Census for 2010 block data.

Comparison of Total Population Change

Between 1970 and 1990, Forest Home Township's population experienced periods of substantial growth. The rate of growth in the Township remained relatively similar to Antrim County until 2000. In 1990, the Township increased more than the population of Antrim County or the population of the Village of Bellaire. In 2000, both Forest Home Township and the Village of Bellaire experienced a similar percent decrease in population. This trend of decreasing population is expected to continue in the Township, as the overall County, Township, and Village of Bellaire populations also decreased in 2017.

Figure 16. Comparison of Population Percent Change



*Estimate from the 2013-2017 American Community Survey 5-Year Estimates
 Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000 & 2010.

Comparison to Antrim County

The populations in Forest Home Township and Antrim County were increasing at relatively similar rates from 1980 to 2000. From 2000 to 2010, the Township's population declined by 138 persons (-7.4%) while the County saw a modest increase of 470 persons, or about 2% for the decade. Between 2010 and 2017, both the Township and the County experienced declines in overall population (Table 9).

Table 9. Comparison of Forest Home Township to Antrim County

| Year | Forest Home Township | | Antrim County | |
|-------|----------------------|----------|---------------|----------|
| | Population | % Change | Population | % Change |
| 1970 | 1,080 | n/a | 12,612 | n/a |
| 1980 | 1,333 | 23.4% | 16,194 | 28.4% |
| 1990 | 1,410 | 5.8% | 18,185 | 12.3% |
| 2000 | 1,858 | 31.8% | 23,110 | 27.1% |
| 2010 | 1,720 | -7.4% | 23,580 | 2.0% |
| 2017* | 1,553 | -9.7% | 23,133 | -1.9% |

*Estimate from the 2013-2017 American Community Survey 5-Year Estimates

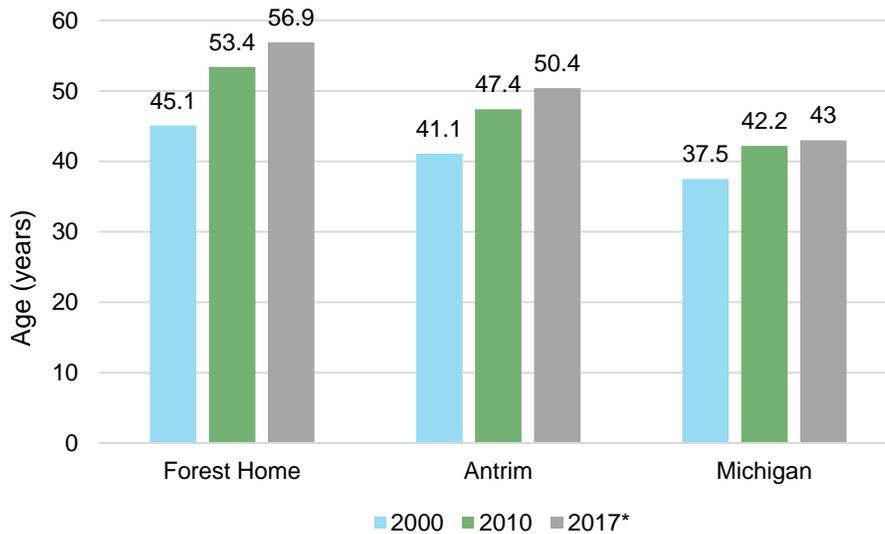
Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000 & 2010.

Comparison to Antrim County

As indicated above, a significant share of the Township's population has aged beyond child rearing years. The Township's median age of 53.4 years in 2010 was significantly older than that of the County (47.4 years) or the State of Michigan (38.9 years). While both jurisdictions saw a sizeable increase in median age, the aging rate in the Township reached over 80% of chronological age in 2010 – or a rate of aging equivalent to the passage of time. This is indicative of a stagnant or declining population. By comparison, Antrim County saw its median age increase from 45.1 years in 2000 to 47.4 years in 2010, for an aging rate equivalent to about 23% of chronological aging. Ideally, the median age in a community remains relatively constant or slowly increases as births balance deaths and in- and out-migration are in balance. A slight increase can be accounted for by longer life spans.

In 2017, the Township, Village of Bellaire, and Antrim County all experienced increases in median age (Figure 14). The 2017 median age of residents in Forest Home Township was approximately 56.9 years compared to Antrim County which was 50.4 years. An increasing median age is indicative of state and national trends. However, both the Township and the County have had consistently higher median ages than the state of Michigan.

Figure 14. Median Age Comparison, 2000-2017*



*Estimate from the 2013-2017 American Community Survey Estimates 5-Year Estimates
 Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000 & 2010.

Comparison of Population Density

The population density of Forest Home Township is greater than the population density for Antrim County. When the population of Forest Home Township was increasing, the density for the Township increased as well. The entire increase between 1980 and 2000 occurred outside of the limits of the Village of Bellaire. However, during the 2000 to 2010 decade, the population of the Township decreased slightly, both inside and outside the Village (Table 10).

Population density increased by approximately 22.7 persons per square mile for both the unincorporated portion of Forest Home Township as well as for Antrim County as a whole between 1980 and 2000, with two-thirds of this increase occurring between 1990 and 2000. This trend was reduced in the 2000 – 2010 decade.

Table 10. Comparison of Population Density (Persons per square mile)

| Year | Forest Home Township | Antrim County |
|------|----------------------|---------------|
| 1980 | 35.2 persons | 34.0 persons |
| 1990 | 39.1 persons | 38.1 persons |
| 2000 | 57.8 persons | 48.5 persons |
| 2010 | 52.5 persons | 49.5 persons |

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000 & 2010.

Comparison of Education

The educational level in Forest Home Township is higher than Antrim County and the State of Michigan. This can be attributed to a number of factors, including an increased number of higher income retirees and a higher percentage of professionally employed persons in relation to other types of jobs. With lakefront lots commanding a premium price, purchasers of lakefront property tend to have higher incomes, which relates to educational attainment.

According to the 2010 American Community Survey, 90.8% of people 25 years or older in Forest Home Township had earned a high school diploma and 28.5% had earned a Bachelor's degree (Table 11). By 2017, 96.1% of the people age 25 years or older had earned a high school diploma and 39.1% had earned a Bachelor's degree or higher. Compared to Antrim County and Michigan, the Township has a higher percentage of the population with high school diplomas and advanced degrees. This indicates that residents of Forest Home Township are highly educated.

**Table 11. Comparison of Educational Attainment Level*
(Persons Over 25 Years of Age)**

| | High School Grad. or Higher, 2010 | High School Grad. or Higher, 2017 | Bachelor's Degree or Higher, 2010 | Bachelor's Degree or Higher, 2017 |
|----------------------|--|--|--|--|
| Forest Home Township | 90.8% | 96.1% | 28.5% | 39.1% |
| Antrim County | 87.1% | 91.0% | 23.3% | 26.9% |
| State of Michigan | 88.0% | 90.2% | 25.0% | 28.1% |

* Estimates from the 2010 & 2017 American Community Survey 5-Year Estimates

Comparison of Household Size

The household size in Forest Home Township is decreasing, which is consistent with the statewide decline. The percentage of households with children, households with married couples, and households with female heads of household are less than the percentages of these categories for Antrim County (Table 12).

Table 12. Comparison of Household Size

| Units of Government | Year | Total Households | | Married Couple Households | | Female Heads of Household/ No Male Present | |
|----------------------|------|------------------|--------------------------------|---------------------------|--------------------------------|---|--------------------------------|
| | | Total Number | Percent With Children Under 18 | Total Number | Percent With Children Under 18 | Total Number | Percent With Children Under 18 |
| Antrim County | 1990 | 5,202 | 33.4% | 4,419 | 26.0% | 593 | 5.8% |
| | 2000 | 6,712 | 29.7% | 5,627 | 24.2% | 724 | 4.9% |
| | 2010 | 9,890 | 23.3% | 5,668 | 28.2% | 822 | 8.3% |
| Forest Home Township | 1990 | 423 | 30.8% | 372 | 24.9% | 40 | 4.5% |
| | 2000 | 572 | 26.8% | 505 | 21.3% | 33 | 2.7% |
| | 2010 | 781 | 18.4% | 474 | 21.7% | 46 | 5.8% |

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000 & 2010.

POPULATION TRENDS

- Trend #1** Permanent Population: The Township's population peaked in 2000 and has been slightly declining since that time. The Township's population numbers are situated relatively in the middle of neighboring communities.
- Trend #2** Seasonal Population: Seasonal population greatly increases the number of people in the Township during summer months.
- Trend #3** Peak Population: During the summer months, the number of people living in the Township increases by nearly 65%.
- Trend #4** Population Distribution: More people live inland rather than along the shoreline.
- Trend #5** Population Age: The median age of the population is increasing rapidly and is higher than Antrim County and Michigan.

- Trend #6** Population Sex: Based on the 2010 Census, there was almost an equal number of males and females in the Township.
- Trend #7** Education: The educational attainment level slightly increased between 2010 and 2017. Educational attainment in the Township is higher than Antrim County and Michigan.
- Trend #8** Household Size: The household size is decreasing.

HOUSING

Number of Housing Units

Since 1970, the greatest increase in the Township’s total number of housing units was between 1970 and 1980 (+50.4%). Since then, the Township has retained considerable growth in the number of housing units between 1980 and 2010. However, between 2010 and 2017 the number of new housing units significantly slowed, with an estimated increase of approximately 1.5% (Table 13). Therefore, future housing unit increases can be expected to be lower than historic increases.

In 2010, the Township had a very high percentage of vacant housing (11.4%). However, of the 1,511 housing units in 2010, 781 were occupied on a year-round basis and 659 were used for seasonal or occasional recreational use. The remaining 71 are vacant, abandoned, or unoccupied and for sale. Therefore, the Township retains a very high number of seasonal homes that influence the percentage of reported vacant houses. Removing the influence of seasonal housing on the vacancy rate, the Township returns to a healthy percentage of vacancies and housing blight is not a concern.

Table 13. Changes in Housing Units*, 1970-2010.

| Year | Housing Units | Actual Increase | Percentage Increase |
|-------------|----------------------|------------------------|----------------------------|
| 1970 | 700 | - | - |
| 1980 | 1,053 | 353* | 50.4% |
| 1990 | 1,245 | 192* | 18.2% |
| 2000 | 1,364 | 119* | 9.6% |
| 2010 | 1,511 | 147 | 10.8% |
| 2017 | 1,533 | 22 | 1.5% |

* Includes figures for the part of Bellaire contained within the Townships.

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce. 2000 & 2010.

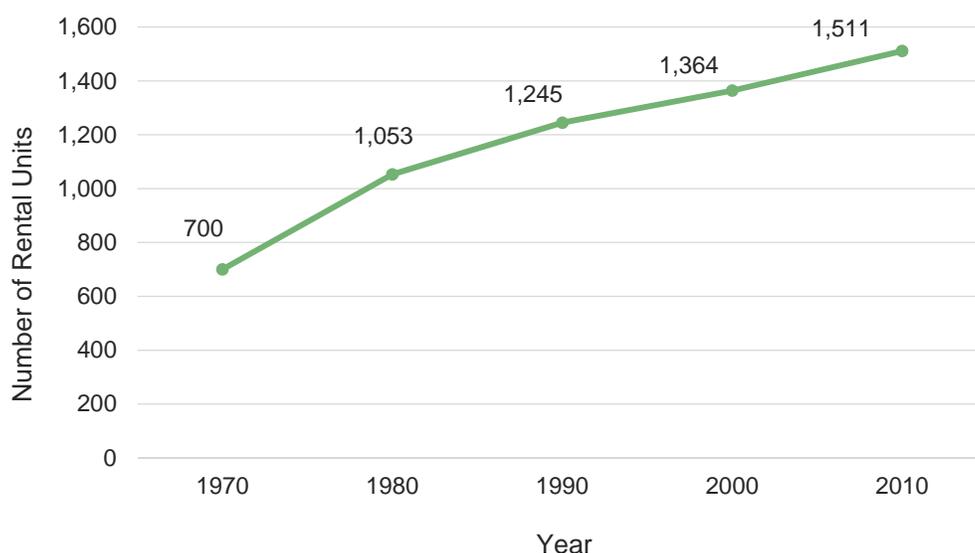
Value of Housing Units

The value of houses within Forest Home Township and Antrim County increased by over 200% between 1980 and 2000, while the statewide increase for the same time period was just under 200%. By 2010, the median single-family home value in the Township was \$208,500, as compared to \$154,900 in Antrim County and \$136,600 for Michigan as a whole. In 2017, housing values in the Township were estimated to decrease by approximately 10%. However, median home value in the Township has remained higher than Antrim County and Michigan.

Rental Housing

Between 1990 and 2000, the number of rental housing units decreased from 81 to 67 units, but rebounded to 94 units in 2010. The cost of rental housing within Forest Home Township increased between 1990 and 2000 by 49%. In 2010, the median monthly rent in the Township was \$545, compared to \$487 for Antrim County and \$595 for Michigan as a whole.

Figure 17. Actual Changes in Housing Units



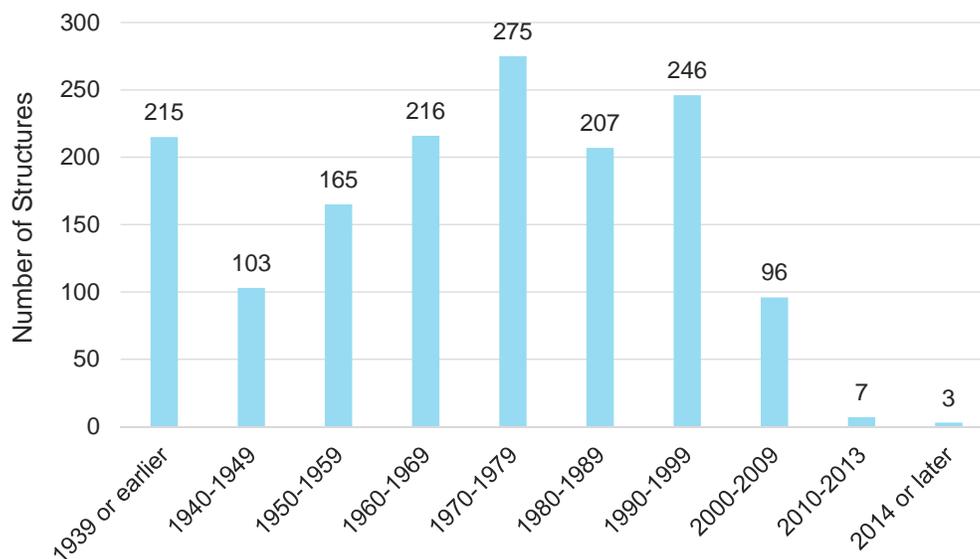
Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce. 2000 & 2010.

Age of Housing Units

Generally, a house can have a useful life of 100 years, but a substantial number of updates and technology improvements are necessary to meet the standards that most people demand today. Houses that are over 20 years of age should be considered for substantial upgrades in the areas of insulation, heating, and wiring for electrical, telephone, computer and cable services.

The majority of houses (63.5%) in Forest Home Township were built before 1979. Approximately 36.5% were built from 1980 to 2017, while about 14.0% predate 1940. This indicates that there are many old structures present in the Township that will likely need improvements in the near future.

Figure 18. Number of Structures Built



Source: 2013-2017 American Community Survey Estimates 5-Year Estimates.

HOUSING COMPARISONS

Housing Unit Age

The housing units in Forest Home Township are generally older than housing units in Antrim County. The Township has a greater percentage of housing units built before 1940 compared to Antrim County, while the County has a greater percentage of units built in 1980 or later (Table 14).

Table 14. Comparison of Housing Unit Age, 2017

| Unit of Government | Total Housing Units | Percentage Built Prior to 1940 | Percentage Built Between 1940-1980 | Percentage Built in 1980 or Later |
|----------------------|---------------------|--------------------------------|------------------------------------|-----------------------------------|
| Forest Home Township | 1,533 | 14.0% | 49.5% | 36.5% |
| Antrim County | 17,996 | 11.1% | 41.8% | 47.1% |

Source: 2013-2017 American Community Survey Estimates 5-Year Estimates.

Number of Housing Units

Forest Home Township and Kearney Township have a similar number of housing units many of which are located in the Village of Bellaire (Table 15).

Table 15. Comparison of Housing Unit Numbers

| Unit of Government | 1980* | 1990* | 2000* | 2010 |
|-----------------------|-------|--------|--------|--------|
| Antrim County | 8,430 | 13,145 | 15,090 | 17,824 |
| Forest Home Township | 1,053 | 1,245 | 1,364 | 1,511 |
| Kearney Township | 583 | 1,001 | 932 | 1,385 |
| Village of Bellaire** | - | 517 | 545 | 549 |

*These figures are included in the county and respective township numbers.

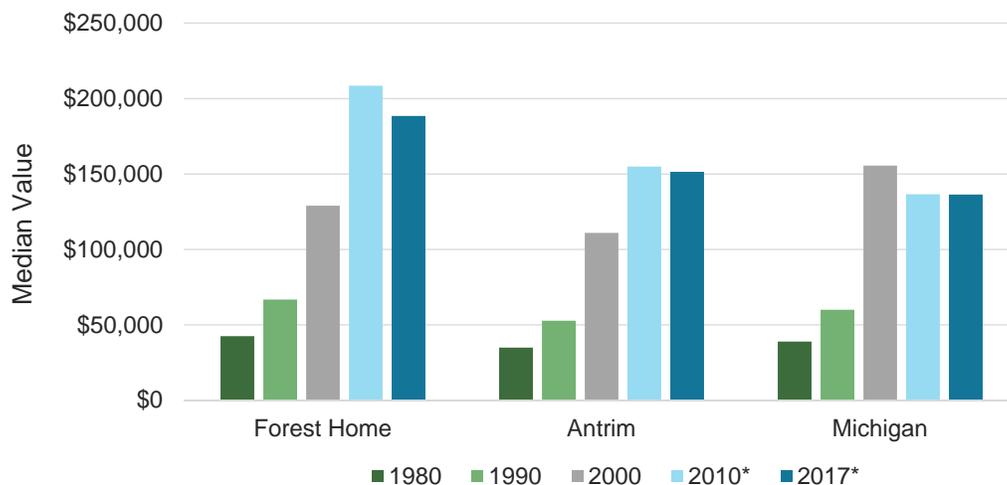
**Figures were not determined for Forest Home or Kearney Townships.

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000 & 2010.

Median Value

The percent increase in median value of housing units in Forest Home Township (57%), Antrim County (51%), and Michigan (54%) were similar between 1980 and 2010. The greatest percent increase for all of these jurisdictions occurred between 1990 and 2000, with Forest Home Township home values increasing by 93%, Antrim County by 110%, and Michigan by 159%. This rate of increase slowed between 2000 and 2010; however, the Township's median home value still increased at a considerable rate (62%) that was higher than Antrim County (40%) and the state (-12%). Although the Township has experienced substantial increases in home value since 1980, these values were estimated to decrease between 2010 and 2017 in the Township, Antrim County, and Michigan.

Figure 19. Median Value of Owner-Occupied Housing



Estimates from the 2010 & 2017 American Community Survey 5-Year Estimates

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000.

Rental Housing Rates

Rental housing rates rose at a higher rate in Forest Home Township than in Antrim County and the State of Michigan until recently, when rents have stabilized and even declined slightly (Table 16).

Table 16. Comparison of Occupied Rental Housing Unit Rates, 2010

| Unit of Government | Rental Units | | | Median Rents | | | % Change 2000-2010 |
|----------------------|--------------|-------|-------|--------------|-------|-------|-----------------------|
| | 1990 | 2000 | 2010 | 1990 | 2000 | 2010 | |
| Forest Home Township | 81 | 67 | 94 | \$373 | \$556 | \$545 | -1.8% |
| Antrim County | 1,215 | 1,281 | 1,597 | \$342 | \$460 | \$487 | 5.9% |
| State of Michigan | - | - | - | \$423 | \$546 | \$595 | 8.8% |

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2010.

HOUSING TRENDS

- Trend #1** Number of Housing Units: The number of housing units has been increasing in Forest Home Township. In recent years, this rate of increase has somewhat slowed.
- Trend #2** New Construction: New construction has been declining in Forest Home Township and declined severely with the national economic decline in the late 2000s.
- Trend #3** Age of Housing: The age of housing units in Forest Home Township is increasing, as the majority of homes were built before 1980. Relatively few homes have been constructed in recent years (2010 or later).
- Trend #4** Median Value of Housing: The median value of housing units in Forest Home Township increased dramatically between 1980 and 2010, with median housing values well above Antrim County and Michigan. Between 2010 and 2017, this rate of increase was estimated to slightly decline in the Township.
- Trend #5** Rental Housing: The number of rental housing units in Forest Home Township was decreasing, but stabilized and rose slightly since 2000. Rental housing rates appear to remain stable.

ECONOMY

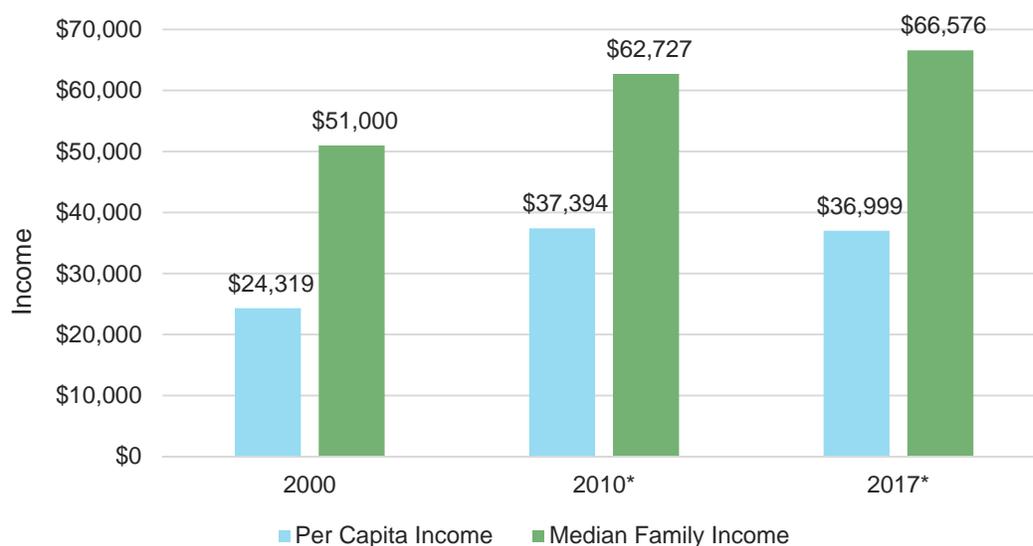
Per Capita and Median Family Incomes

The per capita income levels for residents in the Township experienced a net increase in dollar value between 2000 and 2017. According to the American Community Survey, the 2017 per capita income for the Township was \$36,999. Although this is a slight decrease in value from 2010, it represents a 52% increase since 2000.

In 2017, the median family income in Forest Home Township was \$66,576. This represents over a 62% increase since 2000. There were an estimated 6.1% of individuals 18 years and older below the poverty level in 2017, which is considerably lower than the Michigan average of 13.8% of individuals.

There are 1,400 people over the age of 16 and, of those, 691 were considered to be in the labor force in 2017. An estimated 656 are employed and 35 unemployed. A total of 709 are considered not in the labor force, which would typically include the retired and disabled.

Figure 12. Changes in Per Capita Income and Median Family Income, 2000-2017



Estimates from the 2010 & 2017 American Community Survey 5-Year Estimates

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000.

ECONOMIC BASE

Historically, Forest Home Township has not been a major economic attraction in Northern Michigan or even Antrim County in terms of providing jobs or direct incomes.

In the late 1800's the economy of Northern Michigan was primarily related to the wood harvesting industry. As northern Michigan and specifically Forest Home Township were logged off, land was converted into agricultural uses. Over time, the terrain and close proximity to water (which served to moderate the temperature extremes) proved to be a major asset in the

production of various types of agricultural crops. Farms comprised of orchard crops and livestock covered the landscape.

During the past 30 years, fewer than 20 families have been able to support themselves by farming. Those who are surviving are doing so either due to excellent management and a fair amount of luck or the farm income was supplemented by a secondary (or in some cases primary) income that has come from a job off the farm. This decrease in agricultural jobs can be observed in Table 17.

Weekly or seasonal rental of lakefront cabins was traditionally a source of income for residents in the past, but the bulk of these cabins have either been torn down or sold and moved off the lakefront property. Much of the former cabin properties have been split into individual lots and sold. Nevertheless, residents working in the entertainment and recreation sector has dramatically increased between 1990 and 2010 (Table 17).

Generally, the residents of the township work in Bellaire, or travel to other communities such as Kalkaska, Traverse City, Gaylord, Petoskey and Charlevoix for employment. Major employers in Antrim County are listed in Table 18.

Service Jobs: Shanty Creek Resort has a peak employment level of approximately 600 persons with an annual average of 360 employees.

Education Jobs: Bellaire Public School System employs another 52 persons between teaching, support staff, and athletic departments.

Government Jobs: Antrim County employs approximately 150 persons directly with an additional 150 employees at the Meadow Brook Medical Care Facility.

Manufacturing Jobs: Armor Holdings in Central Lake and Anchor Danly in Bellaire are major providers of jobs outside of Forest Home Township.

Commercial Jobs: A limited amount of commercial activity takes place in the Clam River area of the Township: restaurant, marina, boat repair and storage. There are also two multiple family condominium complexes and a private campground. In addition, a limited number of cabin rentals are located along the waterfront throughout the Township.

The commercial activity that does occur in the township is concentrated on construction trades, lawn care and landscaping services, as well as docks and boat services during the summer months. One sand and gravel extraction operation is located in the Township with the bulk of the material being used for local construction activities.

Table 17. Types of Employment

| Types of Employment* | 1990 | 2000 | 2010 |
|--|-------------|-------------|-------------|
| Agricultural, forestry and fisheries | 25 | 30 | 12 |
| Business and repair services | 22 | - | *** |
| Communications and Utilities | 6 | - | *** |
| Construction | 34 | 59 | 57 |
| Educational Services | 61 | - | 127 |
| Entertainment and Recreation Services | 12 | 120 | 235 |
| Finance, Insurance and Real Estate | 30 | 50 | 25 |
| Health Services (includes Educational & Social Services) | 62 | 136 | *** |
| Information | ** | 14 | 0 |
| Manufacturing | 126 | 131 | 90 |
| Other Professional Services | 53 | 42 | *** |
| Personal services | 57 | - | 63 |
| Professional (Scientific, Management, Administrative) | ** | 28 | 82 |
| Public Administration | 18 | 64 | 51 |
| Retail Trade | 93 | 95 | 82 |
| Transportation (includes Warehousing) | 14 | 29 | 5 |
| Wholesale Trade | 4 | 2 | 22 |
| Total | 617 | 772 | 851 |

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000 & 2010.

* Due to changes in data collection, information is not directly comparable between 1990, 2000 Census and 2010 ACS

** These categories did not exist in 1990.

*** Not separately reported in the 2006-2010 ACS

Table 18. Major Employers in Antrim County, 2018

| 50-99 Employees | 100-249 Employees |
|---|--------------------------------------|
| Alternative Services Inc. (Mancelona) | Armor Express (Central Lake) |
| Antrim County Sheriff's Office (Bellaire) | Cherry Ke Inc. (Kewadin) |
| Burnette Foods Inc. (Elk Rapids) | Meadow Brook Medical Care (Bellaire) |
| Central Lake Public Schools (Central Lake) | YMCA (Central Lake) |
| Chief Golf Course (Bellaire) | |
| Elmira Elementary School (Elmira) | 250-499 Employees |
| Glen's Markets (Bellaire) | Great Lakes Packing Co. (Kewadin) |
| Hart Buick GMC (Alba) | |
| Real Estate Place of Bellaire (Bellaire) | 500-999 Employees |
| Siren Hall (Elk Rapids) | Shanty Creek Resort (Bellaire) |
| Traverse Bay Manufacturing Inc (Elk Rapids) | |
| Village Market Gas (Elk Rapids) | |
| White Birch Lodge (Elk Rapids) | |

Source: Michigan Department of Technology, Management & Budget, 2018, milmi.org/DataSearch

Village Center

The Village of Bellaire contains a viable commercial cluster in the "downtown" area with several dozen stores and restaurants, as well as another commercial area on the south side of Bellaire with enterprises such as several banks, a major grocery store, laundromat, car wash, gas station, car and boat repair, etc. Shorts Brewery, and various other establishments, have served as a primary attraction to Bellaire.

Bellaire is the location of Antrim County offices, and offices for the Village of Bellaire, Forest Home Township and Kearny Township. The location of the county seat also attracts many related businesses, including attorneys' offices, computer firms, restaurants and other support commercial uses.

Resorts

There are seven golf courses located east of Bellaire: The Farm, The Chief Golf Course, Hawk's Eye Golf Resort, Shanty Creek-The Legend, Shanty Creek-Cedar River, Shanty Creek-Summit, and Shanty Creek-Schuss Mountain. They provide a large number of the minimum wage jobs in Entertainment and Recreation during their peak season, in the summer. The increased popularity of golf has increased the spring, summer, and fall employment levels. However, not all of these jobs are full time or year-round due to their seasonal nature.

Tourism

Many tourism related jobs (Entertainment and Recreation) are seasonal and do not pay a wage sufficient to serve as a sole source of family income for other than the owners or proprietors of these businesses. However, they do provide a source of jobs for the youth of the area. With the increasing numbers of second homes being constructed in Northern Michigan, the construction industry and related trades do provide wages sufficient to support a family.

Commercial Areas

There is a commercial area close to the Village of Bellaire at the site of the former Bellaire Log Cabin manufacturing facility. Industrial parks (or vacant industrially zoned lands) exist in the Central Lake Township, Kearney Township, and the Villages of Bellaire, Mancelona, Elk Rapids, and Ellsworth.

As of 2018, the Forest Home Township Map indicates only a small area in the southwest part of the Township as designated for commercial use on the zoning map, as waterfront commercial. Historically, boat repair, boat rental, boat slips, gasoline sales, bait and tackle supplies, restaurants and boat storage have been commercial activities in this location for the past 100 years.

ECONOMIC COMPARISONS

Per Capita Income

Historically, the per capita income in Forest Home Township has been higher than that of Antrim County, but lower than the state of Michigan. However, in 2000, the percent increase in the Township's per capita income exceeded that of the County and the State for the first time since records have been maintained (Table 19). Exceeding the state of Michigan's per capita income is a rarity among communities in Northern Michigan. This trend accelerated in the 2000 – 2010 decade.

The persons classified as being in poverty in Forest Home Township declined by a much greater rate between 1990 and 2000 than the rate for either the County or the State. However, in the 2000s the percentage of persons living in poverty increased across the board. This increase occurred at a much lower rate in Forest Home Township than in the County or State.

Table 19. Comparison of Income and Poverty Status

| | Per Capita Income (per person) | | | Percentage of Persons in Poverty | | |
|----------------------|-----------------------------------|----------|-------------------|-------------------------------------|-------|-------------------|
| | 2000 | 2010 | Percent Change | 2000 | 2010 | Percent Change |
| Forest Home Township | \$24,319 | \$37,394 | 53.8% | 5.0% | 5.4% | +14.0% |
| Antrim County | \$19,485 | \$23,912 | 22.7% | 9.0% | 16.0% | +77.8% |
| State of Michigan | \$22,168 | \$24,724 | 11.5% | 10.5% | 17.5% | +73.5% |

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000; 2011 ACS.

Employment & Unemployment

The total number of people in a working age group (older than 16 years) and the number of people in the Township's labor force have been decreasing. Between 2000 and 2017 the civilian labor force has decreased by 13%. This likely corresponds to a decreasing overall population. Although the total number of people in the labor force has been decreasing, unemployment has improved (Table 20). The unemployment levels in Forest Home Township are slightly higher than the State of Michigan, but lower than Antrim County. Unemployment in the Township and Antrim County have significantly improved since the economic recession that occurred in 2010.

Table 20. Employment Status

| Unit of Government | Persons over Age 16 | | | Total Civilian Labor Force | | | Percent Unemployed | | |
|-----------------------|---------------------|--------|--------|----------------------------|--------|--------|--------------------|-------|-------|
| | 2000 | 2010* | 2017* | 2000 | 2010* | 2017* | 2000 | 2010 | 2017 |
| Forest Home Twp. | 1,509 | 1,672 | 1,400 | 851 | 915 | 691 | 6.0%* | 7.0%* | 5.1%* |
| Antrim County | 18,125 | 19,542 | 19,310 | 10,705 | 10,996 | 10,406 | 4.7% | 16.0% | 6.5% |
| State of Michigan | - | - | - | - | - | - | 4.6% | 12.6% | 4.6% |

Source: "U.S. Census of Population and Housing," Washington: U.S. Department of Commerce, 2000; "Employment and Unemployment Statistics – LAUS," Michigan Department of Technology, Management & Budget, 2000-2017.

* Estimates from the 2010 and 2017 American Community Survey Estimates.

ECONOMIC TRENDS

- Trend #1** Per Capita Income: The per capita income in Forest Home Township slightly decreased between 2010 and 2017. However, it is still 52% higher than its value in 2000.
- Trend #2** Economic Base: Tourism continues to provide the economic base for the Forest Home Township.
- Trend #3** Employment: The number of people in the civilian labor force are decreasing, but the rate of unemployment has improved in Forest Home Township.
- Trend #4** Village Center: Retail businesses outside of Forest Home Township provide year-round employment for local residents.
- Trend #5** Regional Employment: The major resorts and golf courses located outside of Forest Home Township provide most of the seasonal, minimum wage jobs.
- Trend #6** Local Employment: Tourism-related businesses provide most of the seasonal employment in Forest Home Township.
- Trend #7** Commercial: There are many opportunities for commercial businesses near Forest Home Township in the Village of Bellaire.

Chapter 4 Land Use and Development Patterns

HISTORICAL PERSPECTIVE

Forest Home Township is unique, because it is an interior peninsula located in the heart of the Elk River Chain of Lakes Watershed in Antrim County, Michigan. The Township consists of 23.6 square miles with 26.6 miles of lake and river shoreline. Only 4.85 linear miles of land compose its borders with Central Lake Township and the Village of Bellaire. The Township includes approximately 15,368 acres of land.

For the past one hundred years, Forest Home Township has been used for a few family farms, year-round homes, seasonal homes and historical waterfront commercial businesses. For the most part, these human land uses have been compatible with the rural landscape and maintained the rural character of the Township.

CURRENT LAND USE

Examining current land use provides insight on existing development patterns. Existing land uses are determined through parcel classification codes that label parcels for tax purposes. Analyzing land use allows the Township to see which activities are most common in the Township (Table 21). Sometimes this corresponds with land cover, which is the vegetative surface in the Township. Together, land use and land cover provide insights on development patterns in the Township.

Agricultural

The number of family farms has decreased over the past 100 years. Many family farms were re-classified in 2004, when the Michigan Tax Commission mandated new guidelines for classifying property as agricultural, which changed many properties from agricultural (101) to residential (401). In 2016, 67 parcels (3,437 acres) received tax exemption as qualified agricultural property. To receive this exemption, the property must either be classified as agricultural on the current assessment roll or have more than 50% of the acreage devoted to agricultural use.

Approximately 23% of land uses in the township are dedicated to agricultural uses according to property classification codes. This is the second most common land use in the Township, following residential uses. Although the number of agricultural uses has decreased since historical values, farming remains an important use in the Township and contributes to its rural character.

Residential

Residential land is the most common land use and mostly consists of single family dwellings. Until the national economic decline that occurred in the late 2000s, approximately 18 new homes were built in Forest Home Township each year. More recently, the annual average has declined to about less than five units per year.

Although residential uses are located throughout the Township, waterfront property is especially popular for local residences. Waterfront parcels are generally smaller than other parcels in the

Township and accommodate a greater density of residential uses. Farther from the shore, residential parcels tend to increase in size and tend to be associated with rural or agricultural activities. Although the number of primary principal residences have decreased since 2012, residential uses are still the most common use in the township.

Commercial

Commercial enterprises in Forest Home Township have been limited to two main locations: Clam River and near the Village of Bellaire on along M-88. Historically, businesses along Clam River have provided water-related services such as marinas, boat slip rentals, boat rentals, and boat sales, repair, service, and storage. Retail stores operated within enclosed buildings and restaurants have also been located in this area. There are presently four businesses along Clam River.



Exempt

Tax exempt land is often associated with public schools, natural areas, and open space owned by Antrim County or the Township. Forest Home Township has a significant portion of open space land functioning to preserve sensitive habitats and preserve natural areas. These include the Glacial Hills Natural Area and Golden-Days Loon Nature Preserve.

Commercial Forest and DNR

Through the DNR, property owners can voluntarily participate in a commercial forest program. Landowners maintain their forest for long-term timber production in return for a property tax incentive. Many residents in Forest Home Township participate in this program, contributing to the sustainable production and use of timber resources in the Township. This program also encourages the maintenance of large tracts of land in the Township.

Other lands classified as “DNR” are owned by the Michigan DNR and function as public spaces and boat launches.

Other

Other land uses are retired/split properties, reference special acts, or unclassified in parcel data. These may include residential and agricultural uses.

Table 21. Land Use in Forest Home Township

| Land Use | 2016 (Acres) | Percent of Total |
|---------------------------|-------------------------|-----------------------------|
| Agriculture | 3,503 | 23.0% |
| Commercial | 41 | 0.3% |
| Residential | 9,424 | 61.9% |
| Exempt | 1,550 | 10.2% |
| Commercial Forest | 411 | 2.7% |
| DNR | 6 | 0.0% |
| Other | 286 | 1.9% |
| Totals¹ | 15,221 | 100% |

Source: Forest Home Township Parcel Data, 2016
¹ The Township's total acreage slightly varies from the total in Table 22 due to different sources. These totals are intended to be estimates and provide a general insight on land use and cover trends.

Land Cover Change

The Township includes approximately 15,368 acres of land. The National Land Cover Database (NLCD) provides land cover data at a 30-meter resolution. Using this data, land cover changes can be observed throughout Forest Home Township. Between 2001 and 2016, land cover has not significantly changed (Map 11). Agriculture had the greatest change, increasing by 13% during this time (Table 22). This largely occurred in the southern portion of the township near Lynn Road and in the north near S. Eckhardt Road. Grassland and shrub areas decreased primarily in response to growing agriculture.

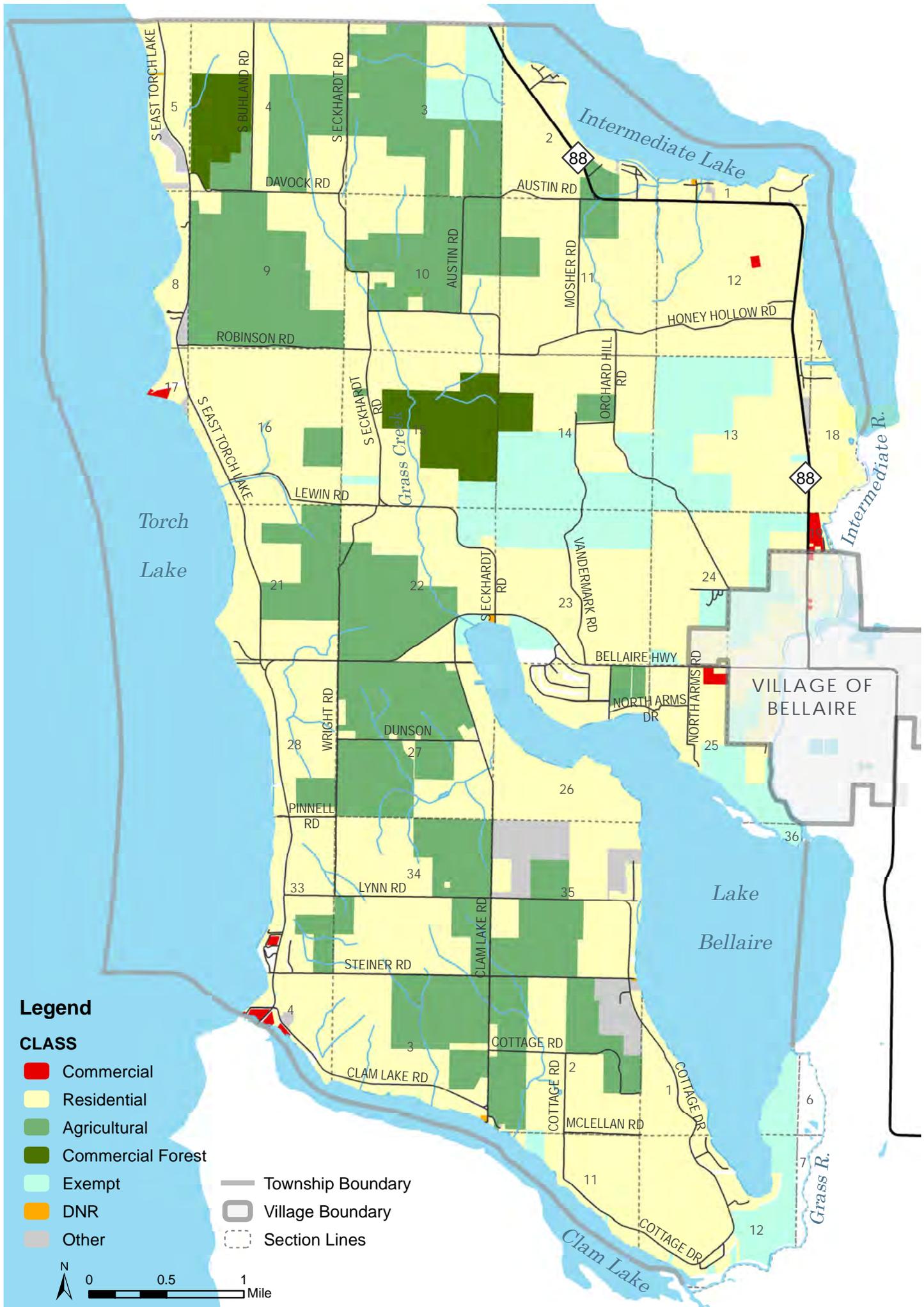
High intensity development has also increased. This is primarily associated with growth in the Village of Bellaire, with only a few small changes in the Township. However, low intensity development, such as barren land and open spaces, has remained relatively the same. Wetlands and forests have also remained relatively the same between 2001 and 2016, indicating a pattern of sustainable use and protection of these natural features.

Table 22. Land Cover Change 2001 and 2016

| Land Cover in Acres | 2001 (Acres) | 2016 (Acres) | Percent Change |
|----------------------------|-------------------------|-------------------------|---------------------------|
| Agriculture | 1,695 | 1,920 | 13% |
| Forests | 7,957 | 7,925 | -0.4% |
| Grasses & Shrubs | 2,653 | 2,456 | -7% |
| Developed, Low Intensity | 1,329 | 1,325 | -0.3% |
| Developed, High Intensity | 52 | 58 | 12% |
| Wetlands | 1,682 | 1,684 | 0.1% |
| Total¹ | 15,368 | 15,368 | |

Source: "NLCD 2016 Land Cover (CONUS)," Multi-Resolution Land Characteristics Consortium, 2001 and 2016.

¹ The Township's total acreage slightly varies from the total in Table 21 due to different sources. These totals are intended to be estimates and provide a general insight on land use and cover trends.



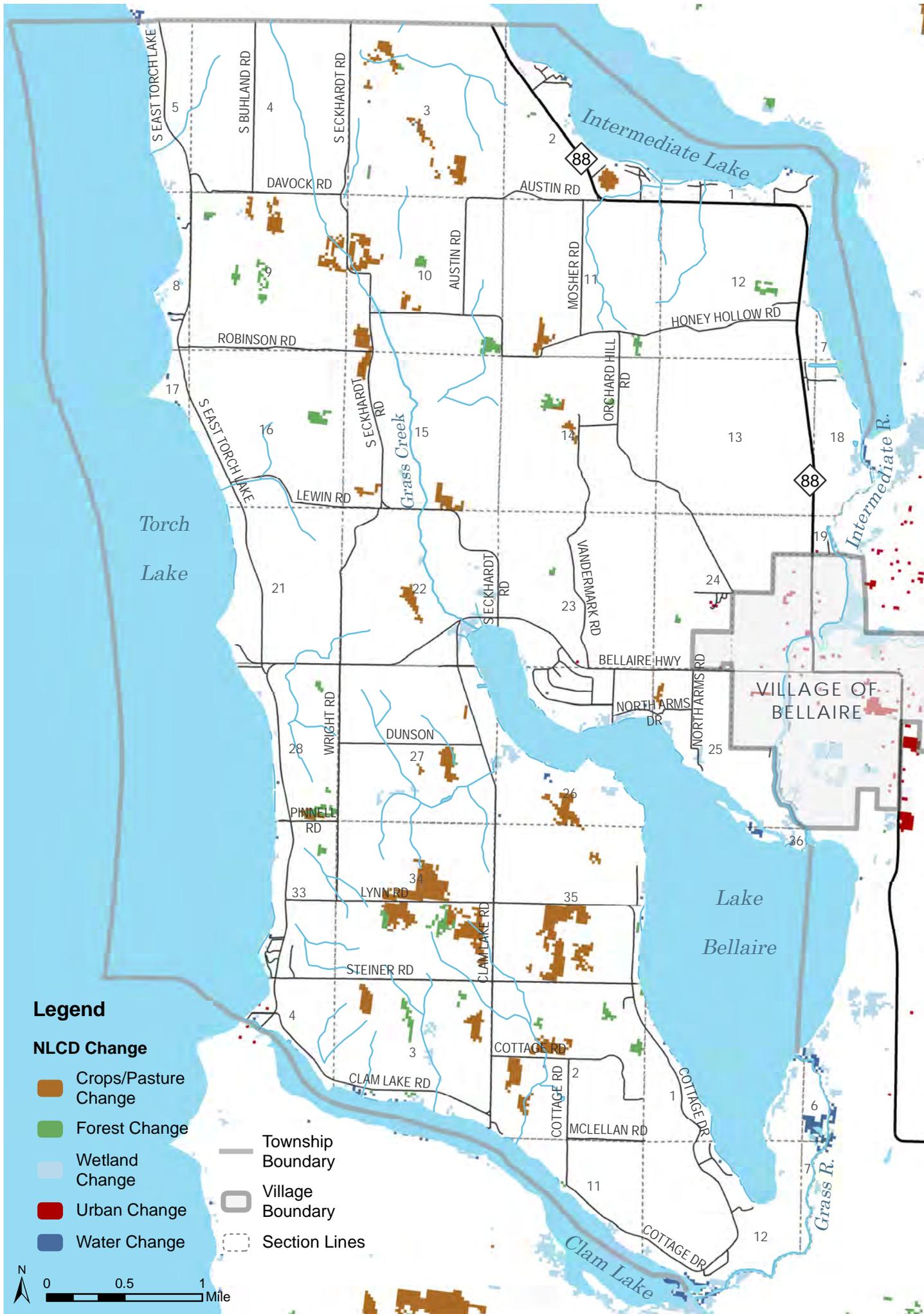
Legend

CLASS

- Commercial
- Residential
- Agricultural
- Commercial Forest
- Exempt
- DNR
- Other

- Township Boundary
- Village Boundary
- Section Lines





Legend

NLCD Change

- Crops/Pasture Change
- Forest Change
- Wetland Change
- Urban Change
- Water Change

- Township Boundary
- Village Boundary
- Section Lines



IMPACTS OF DEVELOPMENT ON RURAL CHARACTER

Water Quality

If property owners remove the greenbelt that buffers the lakes and streams, then more sediments, nutrients, and toxins can enter the water and water quality begins to decline. Most waterfront parcels have been developed for residential use. Therefore, responsible land use practices by residents will greatly impact the quality of the water on which they reside.

Wetlands

Prior to the adoption of a Forest Home Township Wetlands District in 1971 and the Michigan Wetlands Protection Act in 1979, many wetlands were filled and developed for residential use. Current practices prohibit building structures in wetlands and access to waterfront is permitted with boardwalks.

Forests

As large parcels are divided, forests become fragmented, which interrupts wildlife corridors and has a negative impact on wildlife foraging and dispersal. A few of the mixed hardwood forests remain in large tracts, but there is significant acreage that has been planted as pine plantations. Timber harvesting on steep slopes with heavy equipment has negatively impacted the rejuvenation of a diversity of species.

Scenic Views

As undeveloped waterfront property becomes scarce, a second tier of development is starting to occur on the ridges. This provides scenic views to the property owners, but may have a negative impact on the scenic views of the hills by the general public from paved roads. The steep driveways may increase erosion.

Farmland

Scenic views are also diminished when farmland is converted to residential use. As the acres of farm fields decrease, the number of houses, garages and storage buildings increase.

PROPERTY OWNERSHIP

Property Values

After a down turn for a period of time in the early to middle 1980's, the cash value of agricultural land and parcels has been increasing. A significant reason for the increase in the price of agricultural land is the land offers views of the lakes and a pastoral setting because of the lack of surrounding development.

Historic trends indicate substantial increases in the value of agricultural and residential lands. Between 1990 and 1995, agricultural land in Forest Home Township increased by 40% and 46% between 1995 and 2005. However, it did not keep up with the 88% increase in the value of residential land within the Township during this time. This sharp increase in the value of residential land values can be attributed in part to the overall statewide increase in the price of housing. The increase was further compounded by the fact that most of the residential property is located either on or within sight of one of the lakes or rivers surrounding Forest Home Township.

Between 2015 and 2019, this trend of increasing property values has continued, although to a lesser extent than historic increases. Agricultural, commercial, and residential lands all increased in value from 2015 to 2019, with residential land having the greatest percent increase (15.2%) (Table 23). The historic and present increases in property values impact persons wishing to enter the housing market in the Township.

Table 23. Equalized Valuations of Real Property Values, 2015 – 2019

| Tax Identification Number | Class/ Type | Real Equalized Property Value 2015 | Real Equalized Property Value 2019 | Actual Change | Percent Change |
|----------------------------------|--------------------|---|---|----------------------|-----------------------|
| 101 | Agricultural | \$4,786,100 | \$5,383,300 | \$597,200 | 12.5% |
| 201 | Commercial | \$3,970,700 | \$4,150,600 | \$179,900 | 4.5% |
| 401 | Residential | \$223,477,750 | \$257,404,500 | \$33,926,750 | 15.2% |
| Total | | \$232,234,550 | \$266,938,400 | \$34,703,850 | 14.9% |

Source: "Antrim County Tax Records," Bellaire: Antrim County Equalization Office, 2015 and 2019.

Chapter 5 Community Resources

EDUCATIONAL RESOURCES

Residents of Forest Home Township attend the Bellaire Public Schools. The school district provides bus transportation to get students to and from school and sports teams to athletic events. Students participating in extracurricular activities such as sports and club activities must arrange for their own transportation if those activities begin or end at a time other than the normal beginning or ending of the school day.

Since the Michigan Schools of Choice Initiative, parents may choose to enroll their children in any school they choose. They may or may not choose to enroll their children in the district where they live. This option has affected local school enrollment.

In addition, there are charter schools in Williamsburg, Alba, Elmira, Traverse City and Petoskey where parents can find other educational options for their children. There are also parochial schools in the area.

Technical Training is available at the Traverse Bay Area Intermediate School District's Career Technology Center (Career Tech) and the Northwestern Michigan College's Michigan Technology Education Center (MTEC) in Traverse City.

College level education is available through Northwestern Michigan College (NMC) in Traverse City and North Central Michigan College (NCMC) in Petoskey. Both colleges offer Associate Degree Programs, (generally 2 year) in subject areas where a widespread need exists for training such as nursing and accounting.

Northwestern Michigan College operates the University Center at the Boardman Lake Campus, which offers programs from fourteen other colleges and universities in Michigan. Now students can earn bachelor and master degrees. These programs have not eliminated the movement of high school graduates out of the area, but it has allowed currently employed adults to continue to upgrade their skills and obtain degrees without having to give up their jobs and relocate out of the area.

Northwestern Michigan College also operates the Great Lakes Campus, which offers program through the Great Lakes Maritime Academy, Great Lakes Culinary Institute and Water Studies Institute.

PUBLIC SAFETY

Police protection and law enforcement for Forest Home Township are available through the Antrim County Sheriff's Department and the Village of Bellaire Police Department located in Bellaire. As well as the Michigan State Police posts in Kalkaska and Traverse City. The Sheriff's Department provides most of the law enforcement within the township.

Fire and ambulance services are provided through a service funded jointly by a number of local units of government and are located in the Village of Bellaire.

Through the Antrim County Sheriff's Department, 911 Emergency Telephone Service is currently available and an upgrade to Enhanced 911 is planned. This would allow 911 systems to automatically report the telephone number and location of the call made from wireline and wireless phones.

WATER AND SEWER

At the present time, several common sewer systems exist within the township. The Village of Bellaire has a municipal sewer and water system. The Village has established a policy to not extend services outside the Village boundaries. Sunset Torch Condominiums also has a common sewer system.

SOLID WASTE

Solid waste is collected by a number of independent haulers operating throughout Northern Michigan. This waste is collected and taken to transfer stations.

One day a year, the Township sponsors a pick-up day for non-hazardous materials. The Township also supports the Antrim County Hazardous Waste Drop-Off Program held every fall by the Antrim Conservation District.

RECYCLING

Drop-off sites for recyclables exist throughout the County, including a drop-off center in Bellaire, and a small fee is charged to Forest Home Township residents for the service.

PUBLIC LANDS

Forest Home Township. The Township has jurisdiction over several parks and public access sites. The Township Parks and Recreation Commission maintains fences, parking areas and signs. Parks and public access sites are open dawn to dusk year-round. Public access to the water is generally convenient from virtually all locations within the Township. Following is a listing of the parks and public access sites in the Township:

Intermediate Lake- Snowflake Road

Torch Lake- Pinnell Road, Steiner Road, Extension Co. Rd. 620, and Forest Home Township Family Park

Lake Bellaire- Pleasant Street, Lynn Road, Lessard Road, Eckhardt Road, Grass Lake Road and Steiner Road

Family Park- The Township maintains a park on Torch Lake at the north end of the Township which is open for day use only with picnic tables, grills, a parking area and stairs down to the lake. In 2003, the Township acquired a long-term lease from the MDNR for 103 feet of Torch Lake adjacent to the park. It has a walk-in boat launch for small boats such as kayaks and canoes.

Arrowhead Park- In 2006, Forest Home Township acquired a small parcel on the northeast shore of Clam Lake. The Parks and Recreation Committee will develop a management plan for the property.

Jacob's Landing Access- The Parks and Recreation Committee has developed a management plan for the property.

Loon Nursery Preserve- In 2000, the Township received a grant from the Michigan Natural Resources Trust Fund to acquire a 32 acre preserve on the North Arm of Lake Bellaire, which is used by the threatened loon to raise their young. The Township maintains a trail down to a viewing platform on Lake Bellaire which is open dawn to dusk year-round.

Glacial Hills Pathway and Natural Area- In 2006, the Township received a grant from the Michigan Natural Resources Trust Fund to acquire 165 acres of upland property which can be accessed from Eckhardt Road in the center of the Township.

Township Hall- The Forest Home Township Hall is located at 321 North Bridge Street within the Village of Bellaire. A meeting room and restrooms are contained within the building which makes it suitable for use by small groups.

Village of Bellaire. The Village has two recreational facilities located in Forest Home Township: the 8 acre Richardi Park (beach, tennis court, picnic area with grills, picnic pavilion with fireplace, playground equipment, restrooms, 3 basketball courts, 2 ice rinks, and fishing area) and the 10 acre Rotary Soccer Park (7 soccer fields & gravel parking lot).

The Village also has four recreational facilities located across the river in Kearney Township: the 80 acre Craven Park (30 campsites, restrooms with showers, 3 ball fields, football field with concession stand, fishing access, 1.6 miles of trails, playground equipment, picnic area, parking lot, pavilion, barn and corral and fairgrounds) located on Craven Pond and the Rotary Baseball Fields located just south of town on Hwy. M-88. In addition, there is a paved walking trail through town and a small park in Holiday Acres.

There are two public access sites with boat ramps located within the Village.

State of Michigan. The Michigan Department of Natural Resources maintains four public access sites within the Township: Clam Lake- Clam Lake Road, Lake Bellaire-Steiner Road and County Road 620 west of Eckhardt Road, and Intermediate Lake- Gorham Beach Road; the Township has a current lease on the latter.

Antrim County. There are two County road ends that provide additional public accesses in the Township:

- *Torch Lake-* adjacent to the Dockside property; and
- *Clam Lake-* Clam Lake Road end adjacent to the MDNR boat launch.

In 2006, Antrim County received a grant from the Michigan Natural Resources Trust Fund to purchase 155 acres of property on the Intermediate River and along the north shore of Lake Bellaire. This property is managed by the Grass River Natural Area, Inc. and maintained in a natural state.

Antrim County owns over 448 acres of land in Forest Home Township, which are not currently being used for recreational purposes but have recreational potential. A 98-acre parcel located on Vandermark Road contains a valley in which the Antrim County Sheriff's Department has established a target range for use by the Department. Five acres are off-limits to the public. A second parcel of 340 acres is bisected by Orchard Hill Road. This parcel is forested and managed for timber production purposes.

Antrim County owns additional small parcels which may have value for various types of recreational uses. The County has no plans at this time for other uses of the property. While not used for recreation purposes, this land does have the potential to be developed for low intensity recreation use such as hiking, bird watching and cross-country ski trails. These activities would fit in with a multiple use concept for forest land.

The Grass River Natural Area located in the southeastern part of the Township is composed of over 1,200+ acres owned by Antrim County. This area borders the Grass River with a portion located in Forest Home Township and the balance contained in Helena and Custer Townships. This property has two miles of board-walked trails, bridges, benches, observation platforms and interpretive displays. The Nature Center is open during the summer when a naturalist is on duty to provide educational programs including tours and classes.

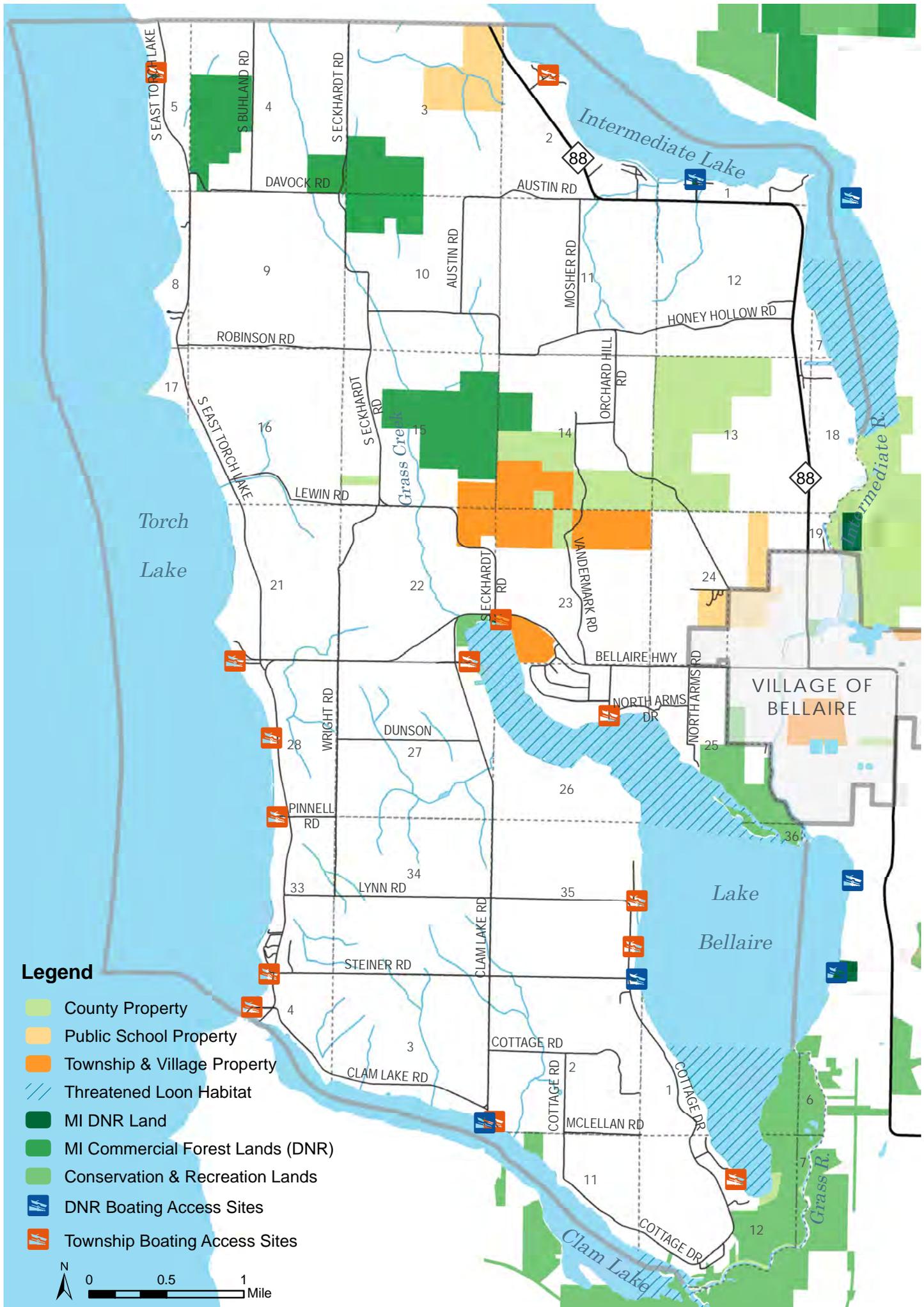
Bellaire Public Schools. Bellaire Public Schools own 40 acres with frontage on Forest Home Avenue and Orchard Hills Road. The schools offer 3 gymnasiums, 1 playground, 2 playing fields, and an athletic complex for soccer, football, and track.

Central Lake Public Schools. Central Lake Public Schools own a parcel of 137 acres with frontage on M-88 just inside the northern boundary of the Township.

Torch Lake Yacht Club. TLYCC is the only privately-owned recreational complex in Forest Home Township. Tennis courts and beach frontage facilities are used only in the summer by members and their guests. Occasionally state, regional, or national regattas are held at the club on Larson Road.

Area Recreational Opportunities. The area surrounding the Township contains many recreational areas. Antrim Creek Natural Area, Cedar River Natural Area, Torch Bay Nature Preserve, Seven Bridges Natural Area, Barnes Park, Craven Park, Jordan River Valley, Skegemog Lake Wildlife Area, Battle Creek Natural Area are a few of the areas open to the public. Shanty Creek Resort, Hawks-Eye Golf Course, The Chief Golf Course, and the Farm Golf Course also provide recreational opportunities.

The Forest Home Township Parks and Recreation Committee has developed a trail plan for the Township which will connect Township trails to other trails in the Village of Bellaire and Antrim County.



Legend

- County Property
- Public School Property
- Township & Village Property
- Threatened Loon Habitat
- MI DNR Land
- MI Commercial Forest Lands (DNR)
- Conservation & Recreation Lands
- DNR Boating Access Sites
- Township Boating Access Sites



TRANSPORTATION

Major Roads

Traffic routes through the township are limited by the water boundaries and topography of the Township. The north-south traffic travels on either East Torch Lake Drive or M-88. These routes are located on opposite sides of the Township and serve to move the traffic efficiently during the majority of the year.

During the summer months, particularly on weekends, East Torch Lake Drive suffers from occasional congestion problems. This congestion is caused by heavy traffic volumes, vehicles towing water craft, numerous turning movements due to large numbers of driveways, as well as a considerable number of pedestrians and cyclists. The Township recently paved the shoulders of East Torch Lake Drive from Clam River north to the boundary with Central Lake Township to provide for a safe bike path along this major road. Traffic flows smoothly on M-88 throughout the year.

M-88 (Bellaire Highway) and Clam Lake Road serve the bulk of the east-west traffic movement in an efficient manner. Traffic flows well on M-88 due to the limited number of driveways that front on this road as opposed to the number of driveways fronting on East Torch Lake Drive. Clam Lake Road serves the function of providing a means of movement within the township and into Bellaire. Clam Lake Road and Eckhardt Road are the major paved roads running north and south in the center of the Township.

Public Transportation

Public transportation is provided by the Antrim County Transit System (ACT) which is a "dial-a-ride" system. Individuals make arrangements for passenger pick-up and delivery throughout the county by contacting the Transit System. Other than ACT, no other forms of public transportation service Forest Home Township or the Village of Bellaire at the current time. Planning is underway for a publicly operated inter-county transit system which may provide service to Forest Home Township.

Grand Traverse County, in cooperation with the Northwest Michigan Council of Governments and the Michigan Land Use Institute, created The Grand Vision Project in 2009 to develop a regional plan for future land use and transportation. Several reports and documents were produced as part of this Grand Vision, offering transportation recommendations and analyses for counties in northern Michigan.

The Grand Vision's recommendations and strategies are incorporated into the Framework for Transportation in Northwest Michigan plan, which is a regional resource developed to help communities meet their local goals. Five priorities were presented in the Grand Vision Mobility Management plan and supported by the Framework for Transportation:²

1. Improve coordination between transportation providers (public and private)

² "A Framework for Transportation in Northwest Michigan" (Networks Northwest, 2015), 27.

2. Integrate transit with the tourism economy
3. Consider water transportation
4. Integrate transportation with regional planning
5. Coordinate and integrate human services transportation into a broader mobility management effort

Airport

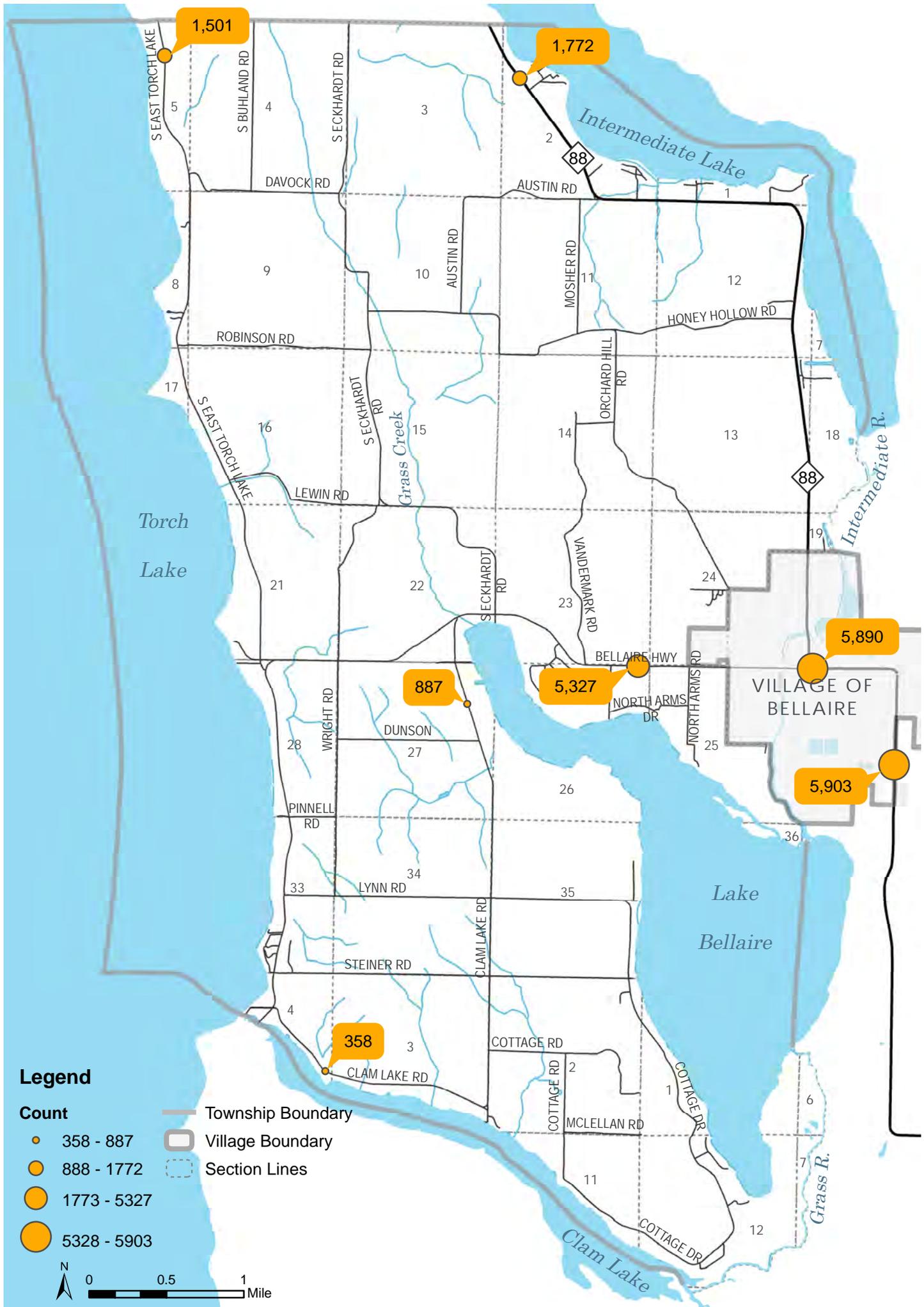
There are four airports in Antrim County: two publicly owned and two privately owned. The Antrim County Airport located in Kearney Township provides two runways with some repair services available, but does not provide for commercial traffic other than charter service originating from other locations. The Cherry Capitol Airport in Traverse City is the nearest location that provides scheduled passenger air traffic.

Boating

The lakes provide a means of travel by small watercraft which is limited to recreational traffic. Boats can travel within the Upper Chain-of-Lakes from Bellaire north to Ellsworth or the Lower Chain-of-Lakes from Bellaire south to Elk Rapids. A spillway in Bellaire prevents the movement of boats between the upper and the lower lakes. Boats are restricted from entering Lake Michigan by the hydro-electric generating dam at Elk Rapids.

Safe harbors are maintained on Torch Lake in Alden by Helena Township, in Torch River, and on Lake Michigan in Elk Rapids by the Village of Elk Rapids.



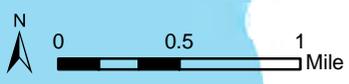


Legend

Count

- 358 - 887
- 888 - 1772
- 1773 - 5327
- 5328 - 5903

- Township Boundary
- ▭ Village Boundary
- - - Section Lines



Chapter 6 Planning Implications

The natural resources which make up the physical environment of Forest Home Township have provided opportunities for development. Because Forest Home Township is a peninsula surrounded by water on three sides, most of the development has been along the shores of these lakes and rivers. The interior of the Township has steep slopes with a high, central plateau that has been suitable for family farms.

The trends that have been observed over the past twenty-five years provide the basis for the following projections. The impacts of this development on the Township's natural resources and rural character during this period provide the basis for describing the potential impacts of these projections on our Township.

POPULATION

Population Trend #1: The rate of permanent population growth is decreasing.

A number of factors have begun to slow the permanent population increases that have taken place in previous decades.

- There is a lack of new jobs paying "living" wages in the area.
- Fewer seasonal homes are being converted to year-round housing.
- There is a lack of rental homes.
- There are fewer starter homes for people starting families, because there are fewer good paying jobs.
- The average age of Township residents is increasing.
- The percentage of households with children under 18 years of age is declining.
- The number of female-headed households is expected to increase based in large part on the aging of the population and the longer life expectancy of women after reaching sixty years of age.

Population Trend #2: The age of the population is increasing.

The increasing median age of Township residents is impacted by a decreasing number of children born to residents. An aging population will require additional services ranging from assistance in maintaining their homes and property to increased medical care, which could offset the potential loss of educational jobs.

A valid concern is whether or not many of the jobs which require unskilled or semi-skilled workers will be able to be filled due to the lack of persons that will be able to live within commuting distance given the pay rates for persons performing these types of jobs.

If the trend that is evident in Forest Home Township also occurs in the other communities that are located within the Bellaire School District, then school enrollment will continue to decline.

If the present plan for school funding in the State of Michigan continues to be determined by the number of students enrolled, and enrollment declines, then a decline in funding will have a negative impact upon the employment numbers at the Bellaire Public School District.

POPULATION PROJECTIONS

Statistical averaging techniques were employed to project the Township’s likely population growth to the year 2040. These approaches are intended to provide a general sense of growth and change in the future. The following generalizations are limited in scope and are based on past trends documented by the United States Census Bureau and other local data.

These projections may have implications regarding future land use necessities, the demand for various public services and capital improvements, and they help to understand the future position of the Township in terms of growth and total population. The following describes the projection techniques.

The Growth Rate Method estimates future population growth based on the past rate of growth in the Township. This method assumes that the average rate of growth that has occurred in the past will continue in the future. The following projections are based on an average rate of increase of 13.4% every decade between 1970 and 2010.

Table 24. Growth Rate Method Population Projections

| Average Growth Rate Each Decade | 2010 Population | 2020 Projection | 2030 Projection | 2040 Projection |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
| 0.13 | 1,720 | 1,950 | 2,211 | 2,507 |

The Arithmetic Method is similar to the growth rate method in that population projections are based on growth that occurred in preceding decades. This method, however, bases population growth on the overall average increase in the number of persons per year, rather than on growth rates. The following projections are based on the average net increase of 160 persons every decade between 1970 and 2010.

Table 25. Arithmetic Method Population Projections

| Average Increase Each Decade (# of persons) | 2010 Population | 2020 Projection | 2030 Projection | 2040 Projection |
|---|-----------------|-----------------|-----------------|-----------------|
| 160 | 1,720 | 1,880 | 2,040 | 2,200 |

The table below summarizes the preceding information. By averaging the results of these methods, it is reasonable to predict that the population of Forest Home Township will grow to about 1,900 persons by the year 2020 and to just over 2,000 persons by the year 2030. At 2.2 persons per household, the Township will need to accommodate about 170 additional homes over the next 20 years or so, or maybe more due to the fact that household size is likely to shrink over the life of this plan. The projections summarized here assume that past trends will continue into the future, and are limited in scope by such a supposition.

Table 27. Summary of Population Projections

| Method | 2010 | 2020 | 2030 | 2040 |
|----------------|--------------|--------------|--------------|--------------|
| Growth Rate | 1,720 | 1,950 | 2,211 | 2,507 |
| Arithmetic | 1,720 | 1,868 | 2,026 | 2,200 |
| Average | 1,720 | 1,909 | 2,119 | 2,354 |

BUILDING

Building Trend #1: The rate of new home construction will continue to be gradual.

A number of factors have begun to slow the construction of new homes. The number of new homes constructed in Forest Home Township has declined from a high of 20-25 per year to less than 10 per year over the past ten years or so.

- The cost of housing is increasing at a greater rate than other communities in Antrim County.
- There is a lack of vacant lake front parcels.
- The cost of property continues to increase at a higher rate than average income.

Building Trend #2: New building lots are increasing in size.

Some of the residential development taking place over the past ten years has been consuming unoccupied residential building sites at a rate faster than new sites have been created. This means that the number of existing vacant residential sites (which in the past were small lots located in subdivisions or half- acre sized lake front lots) is being combined to create new and larger lots.

BUILDING PROJECTIONS

The past trends of the addition of 20 to 25 new homes being constructed per year will slow in the foreseeable future due to a number of factors. The number of new homes being constructed in an average year will remain at less than 10 dwellings per year.

The availability of vacant lake front property and the number of view properties are expected to decline. Development will likely shift closer to the Village of Bellaire, other townships in Antrim County, or other locations in northern Michigan. The high price for fuel and the lack of jobs in the central portion of Antrim County will result in a decline in the number of persons living in the

Bellaire area and commuting to jobs in other areas such as Kalkaska, Gaylord, Traverse City, Charlevoix, and Petoskey.

It is anticipated that housing to accommodate the permanent population will be split in three ways. Some people will move into existing homes which have been occupied on a year-round basis and vacated by persons moving to areas where better job opportunities exist. Some of the new population will move into homes which they formerly occupied on a seasonal basis. The remainder will move into new homes. While some of the new homes will be occupied by year-round residents, many will be used as seasonal dwellings.

ECONOMY

Economic Trend #1: New jobs continue to develop in the Entertainment and Recreation class.

Between 1990 and 2010, the largest gain in jobs was in the Entertainment and Recreation class with a net gain of 223 workers (+1,858%). Each decade resulted in over 100 new jobs, as shown in Chapter 3. Most of these jobs are minimum wage jobs.

Should high housing costs continue, many of the people who currently reside in Forest Home Township and support the area merchants may need to relocate to urban centers, so they have a shorter distance to commute to work and more affordable housing options.

Economic Trend #2: Property values are increasing.

The overall value of property in Forest Home Township increased by approximately 15% from 2015 to 2019. Historically, property values have also experienced great increases in the Township. Between 1990 and 1995, values increased by one- and one-half times their value between 1980 and 1990. Between 1995 and 2005, the overall value of property in Forest Home Township increased again by 34%. This sharp increase in the value of residential land values can be attributed in part to the overall statewide increase in the price of housing. The trend of increasing property values increase is further compounded by the fact that most of the residential property is located either on or within site of one of the lakes or rivers surrounding Forest Home Township. The value of lakefront property may continue to increase. Two factors contribute to this trend: the number of undeveloped lakefront lots is decreasing and the size of lakefront homes is increasing.

LAND USE

Land Use Trend #7: Land use continues to change from agricultural, forested, and/or open land to residential use.

Current trends in conversion of land to residential uses indicate that in rural areas throughout the state, a parcel of five acres is being consumed for every house constructed. Previously, individual residential building parcels were often sized at 10.1 acres to avoid the Subdivision Control Act of 1967. However, the definition of a subdivision changed when this Subdivision Control Act was replaced by the Land Division Act of 1967, altering the way in which properties must be platted. Therefore, creating parcels larger than 10 acres is no longer necessary to avoid the Act.

Land Use Trend #8: The size of homes is increasing.

The primary use of the property in the Township has been by summer residents from downstate or out-of-state. A large number of these dwellings were cabins or cottages not suitable for year-round use due to the lack of insulation or indoor plumbing. These cabins and cottages are being modernized or replaced by larger year-round homes. The primary means of handling human waste has been through septic tanks and tile fields. Many of these systems were adequate for short term use, but are unable to handle the waste load from use for the majority of the summer or the entire year.

Also, the houses are being used for greater periods of time or are being used as year-round homes for property owners who choose to retire to Forest Home Township. With increasing property values, only wealthier people can afford the lakefront property (and taxes), and many of these people prefer to build larger year-round homes.

LAND USE PROJECTIONS

Residential uses are the most common land use in the township (61.9%), followed by agricultural uses (23.0%). This pattern is expected to continue in the future. Agricultural land cover increased by 13% from 2001-2016, while low intensity development remained relatively constant during this time. However, because the NLCD measures land cover at a 30-meter resolution, slight increases in residential development can be difficult to detect. Nevertheless, the current trends of a decreasing population and residential dwelling construction support minimal new residential development in the future.

The previous Master Plan updated expected that, given no changes in the current zoning ordinance language or requirements, the amount of land required to locate the new homes that would be constructed annually would be minimal. New homes would tend to be located in areas firmly committed to residential development (infill development) or scattered throughout the township on land zoned Agricultural. This pattern is expected to continue in the future.

BUILD-OUT ANALYSIS

The potential for future development in the Township is regulated by the Zoning Ordinance that is in existence at the time when land is divided and to a lesser extent, when the property is developed. Land is often divided to maximize the number of building sites that can be obtained from any given tract of land.

Recent changes in the Michigan Land Division and Subdivision Control Act has not impacted land development in Forest Home Township from 1995-2005. Most land division has been by a simple survey rather than a platted subdivision.

Factors other than the minimum lot sizes come into play as well. Steep slopes, the presence of wetlands, and the ability to access streets and highways can also impact the size and configuration of parcels of land.

Health regulations, i.e., the need to ensure that land split to enable development is capable of being connected to a municipal sewer system or has an area on the property to allow an on-site

septic waste disposal facility to be located can result in lots larger than the minimum required by the zoning ordinance.

In 2006, Antrim County adopted the Unified Sanitary Code which may make more land accessible for development through the use of mound systems and advanced treatment systems.

For the purpose of determining the potential future build-out of Forest Home Township, the number of acres in each zone district was calculated based on current zone districts.

A factor is applied to the acres of each soil type to determine the amount of land that could be developed. A portion of the remaining developable land is removed to allow for roads and utility easements. The amount of land allocated for these uses reduces the acreage of land available for development of dwellings or other types of land uses.

Build-Out Projections

A build-out analysis can be used to provide insight on the maximum potential population that could reside in Forest Home Township. First, the total amount of developable land is determined within each residential district and the agricultural district. To account of the necessary infrastructure required (roads, utilities, etc.) to support the development, 15% was subtracted from the total developable land in each zoning district (Table 28).

Table 28. Developable Land Based on Zone District

| Zone District | Developable Acres | Net Developable Acres (Minus 15% for Infrastructure) |
|-----------------------------|--------------------------|---|
| RR, Rural Residential | 252 | 214 |
| WFR, Waterfront Residential | 523 | 445 |
| VR, Village Residential | 57 | 48 |
| Total | 832 | 707 |

Using the net developable acres available in the Township, the total number of potential lots at build-out can be determined using current zoning standards. To derive this number, the total developable net area in each zone district is divided by the minimum lot area allowed in the given district.

Finally, the total population resulting from maximum build-out can be determined using the potential number of lots in the Township (Table 29). This is accomplished by multiplying the number of lots by 2.2, which is the average household size in the Township according to the 2010 Census. Since most of the Township consists of single-family homes, we have assumed that each of the zone districts will contain one home per lot. However, some lots may accommodate more homes and therefore allow for a larger build-out density.

Table 29. Residential Lots at Build-Out Based on Zone District

| Zone District | Net Developable Acres | Minimum Lot Size (sq. ft.) | Potential Number of Lots | Number of Residents at Build-Out |
|-----------------------------|------------------------------|-----------------------------------|---------------------------------|---|
| RR, Rural Residential | 214 | 40,000 | 233 | 513 |
| WFR, Waterfront Residential | 445 | 20,000 | 969 | 2,132 |
| VR, Village Residential | 48 | 10,890 | 192 | 422 |
| Total | 832 | - | 1,394 | 3,067 |

Based upon our build-out calculations under current zoning standards, the maximum number of homes that could be developed in Forest Home Township at full build-out would be approximately 3,067 dwelling units. Given the number of persons per household as determined by the 2010 Census, a full build-out, and full occupancy of all of the housing units, a peak population in Forest Home Township would be 3,067 people. Compared to the 2010 Census of 1,720 people, full build-out would constitute a 78% increase in population. Therefore, current zoning provides ample room for growth in the Township.

This analysis only considered residential zone districts due to the intent of these districts to accommodate the Township’s population. Commercial and agricultural lands were not considered in this analysis due to the types of land uses that are commonly associated with these districts. However, it is recognized that agricultural land will often include dwelling units and there is potential for single-family dwellings to exist above commercial uses. Therefore, these calculated figures may present a slightly lower population estimate than the actual build-out population.

Given the estimated decrease in population in 2017 and population projections, it is not anticipated that the Township will reach full build-out in the foreseeable future. While analyzing future land use patterns in the Township, it may be helpful to consider the Zoning Ordinance’s ability to prevent “overzoning” of land. Based on the build-out analysis, current zoning standards allow for substantial growth in the Township. Although growth may occur in the future, current zoning likely allows for more growth than the Township will experience over the life of this plan. Therefore, specific guidance in zoning standards may help direct land use patterns in a sustainable manner.

Changes to the current zoning ordinance, either in the classification of land from one zoning district to another or changes to the minimum lot size required in any of the zone districts could have a substantial impact upon the potential build-out and total peak population that may be experienced in the future.

POTENTIAL IMPACTS

If these trends predictions become reality, then there will be significant impacts on the land use, rural character, and natural resources in Forest Home Township.

Impact of Projections on Land Use

Rural Residential District

- This district is primarily located between the Lakefront Residential district and the Agricultural district. As development occurs, it will be important to protect agricultural areas from encroachment and minimize incompatible land uses.
- New development may include attempts to obtain sites with a view of the water that are difficult to reach with roads and driveways due to the land's slope.

Waterfront Residential District

- With the number of lakes with high quality water available for recreational purposes, the demand will continue to increase for recreational shorelands.
- The lakefront property that is poorly suited for development is about all that remains of vacant lakefront property.
- Attempts to develop the lakefront lands that are marginally capable of supporting development are expected to continue.

Village Residential District

- Some of the areas adjacent to the Village of Bellaire are subject to slope problems, which influences the ability to locate homes.
- The slopes can be used effectively as buffers or natural barriers between areas that could be heavily developed with those areas that should be retained as agricultural and forestry lands or be developed as very low density residential.

Impact of Projections on Rural Character

Forest Home Township is unique for four reasons:

1. It is located in the center of the Elk River/ Chain of Lakes Watershed.
2. It is shaped as a peninsula surrounded by the cleanest lakes in Michigan.
3. It is rich in high quality water – both surface water resources, such as lakes and streams, and ample groundwater resources support life in the Township.
4. It is primarily a rural, residential township.

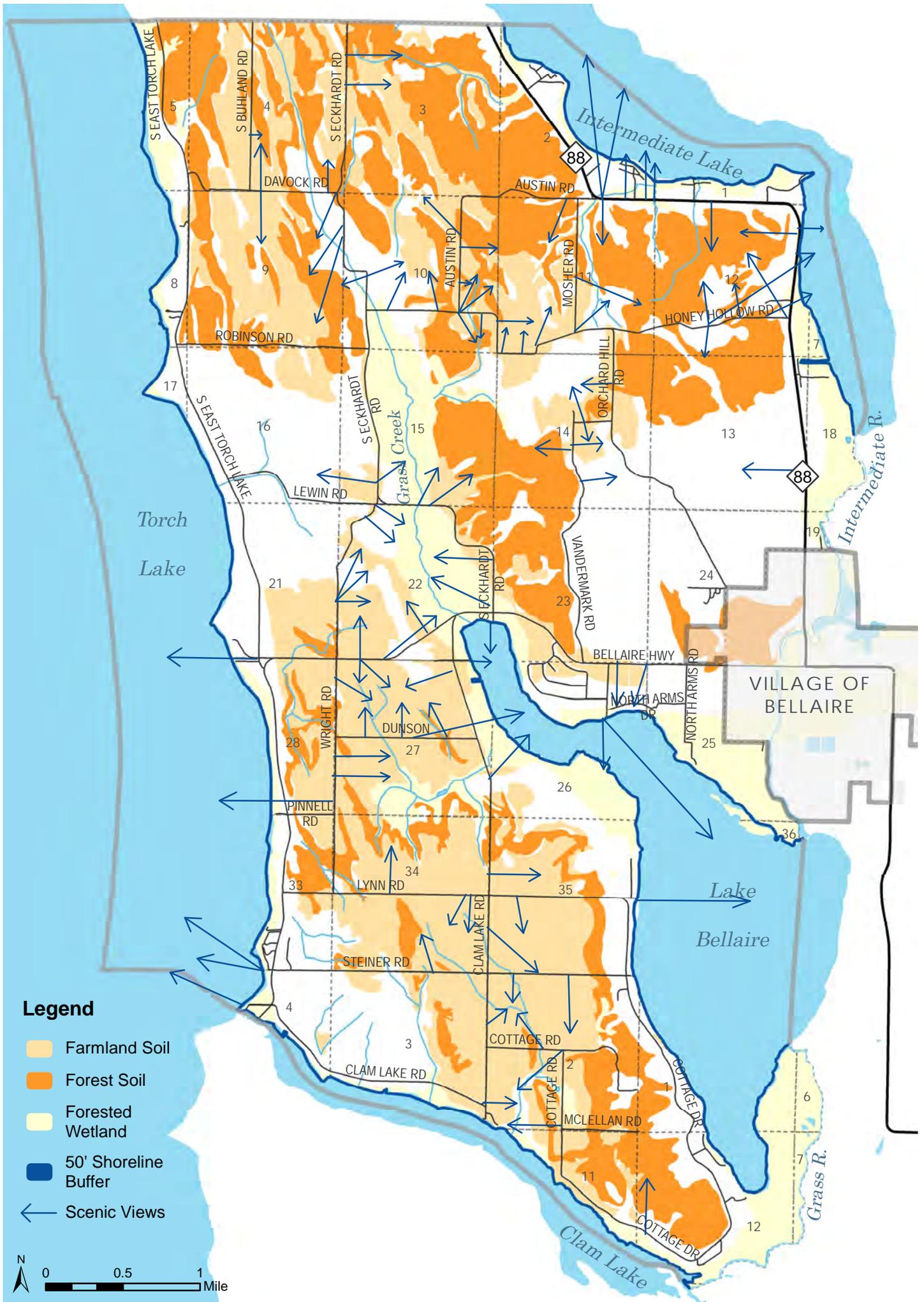
The Township's rural character is evident in the scenic views from public roadways, its farmlands, forests, wetlands, and lakes. During the Resource Inventory conducted in 2000, these rural characteristics were consolidated into a map. While planning for future development, zoning standards should encourage the preservation of scenic viewsheds while allowing appropriate development in order to retain these features that are essential to the identity of Forest Home Township.

Impact of Projections on Natural Resources

In order to preserve the rural character of Forest Home Township, scenic view areas and environmentally sensitive areas will have to be protected. Environmentally sensitive areas are sensitive to development due to factors such as soil type, drainage, vegetation, wildlife habitats, historical features, or other features. If development is permitted in a manner inconsistent with their conservation and preservation, then they are subject to being seriously endangered, damaged, or destroyed.

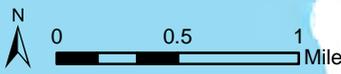
Rural viewsheds and some environmentally sensitive areas are indicated on Maps 14 and 15. Wetlands offer numerous benefits to a community, including improved water quality, habitat for endangered and/or unique species, and erosion control along lakes and rivers. Similarly, rivers provide animal habitat, available surface water, recreational opportunities, and flood mitigation, among many other benefits. Buffers created around wetlands and rivers identify areas that may have an increased impact on the quality of these important natural features. Development in these areas should carefully consider the surrounding resources to ensure their protection.

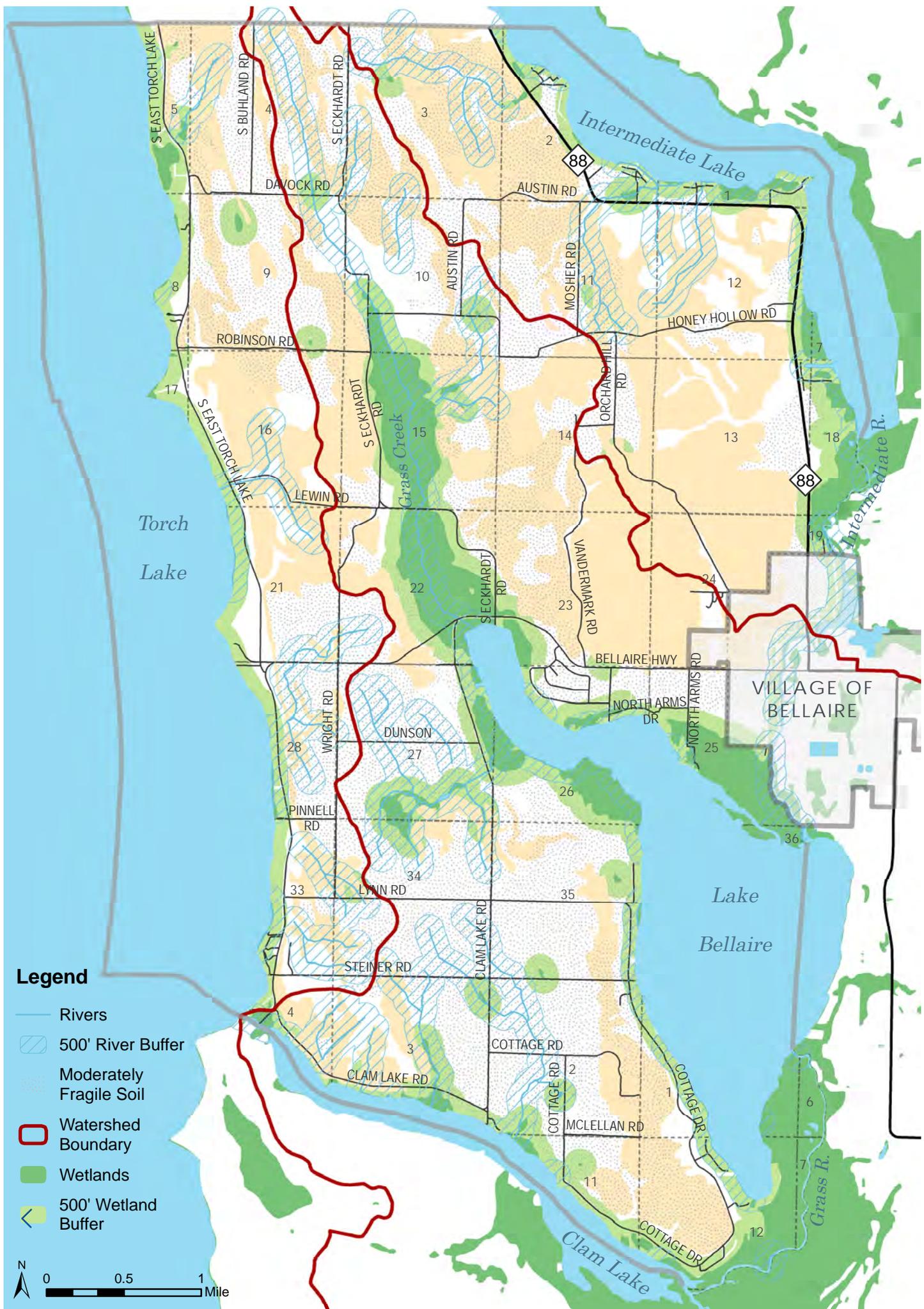
Further, soil type may greatly impact natural resource quality. Some soils are more suitable for development than others. Steep slopes may be susceptible to erosion if not properly managed. Similarly, soils identified as fragile by the Natural Resource Conservation Service (NRCS) are rated based on susceptibility to being degraded, such as through erosion, lack of stability, or weak soil structure. Therefore, development in these areas should carefully consider each site for its natural features to ensure suitable development.



Legend

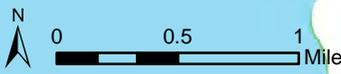
- Farmland Soil
- Forest Soil
- Forested Wetland
- 50' Shoreline Buffer
- Scenic Views





Legend

-  Rivers
-  500' River Buffer
-  Moderately Fragile Soil
-  Watershed Boundary
-  Wetlands
-  500' Wetland Buffer



PART THREE: A PLAN FOR THE FUTURE

Chapter 7 Policies, Goals and Objectives

The policy foundation of this Master Plan is developed through specific goals and objectives. These goals and objectives describe values and visions that are supported by this Plan and the community. Goals are intentionally general statements describing the Township's long-term vision for the community. Each goal is supported by more specific objectives, which outline actions that the Township will pursue to achieve the broader goal. Together, goals and objective statements provide an overview of the intended future character of the Township, offer guidance for land use and public service policies, and serve as a reference for future rezoning and land development decisions.

The Forest Home Township Planning Commission has approved the following vision, goals, and objectives to guide planning in the Township. The goals and objectives outlined below are intended to be used in conjunction with the future land use framework, as well as the implementation summary provided in succeeding chapters.

THE VISION OF FOREST HOME TOWNSHIP

The following vision has been created for Forest Home Township:

Forest Home Township will be a rural community that promotes stewardship of its exceptional natural resources, pursues sustainability of natural and built features, supports the viability of agricultural uses, and offers economic development opportunities for the local population. Residents and seasonal visitors enjoy a variety of opportunities that accommodate all ages, abilities, and incomes in accordance with the Township's rural lifestyle.

THE MISSION OF FOREST HOME TOWNSHIP

"To preserve, protect and enhance the land and water resources of the township. We want to encourage land use consistent with a rural way of life for the people who live and visit here."

Our **Planning Principles** are based on the Smart Growth Principles recommended by the Michigan Land Use Leadership Council in their Final Report- 2003.

1. Preserve natural beauty, open space, farmland and critical environmental areas.
2. Strengthen and direct development towards existing communities.
3. Take advantage of compact development design.
4. Mix land uses.
5. Make development decisions predictable, fair and cost-effective.
6. Encourage community and stakeholder collaboration.

7. Foster distinctive, attractive communities with a strong sense of place.
8. Encourage a range of housing opportunities and choices.
9. Encourage walkable neighborhoods.

GOALS AND OBJECTIVES

Goal 1 **AGRICULTURE.** The viability and sustainability of farmlands and their associated resources will be encouraged in order to promote local long-term farming operations.

Objectives:

- a. Encourage cluster developments to maintain open space and save large areas of contiguous farmland.
- b. Encourage the incorporation of existing agricultural structures such as barns, silos, and old farmhouses into new developments.
- c. Promote conservation initiatives such as Farmland Development Rights Agreements (PA 116) and work with farmland preservation groups and land conservancies to retain large, contiguous agricultural lands.
- d. Encourage participation in the Antrim County Farmland and Open Space Development Rights program.
- e. Proactively help small farmers continue agricultural operations by permitting uses such as the sale of agricultural products, nurseries, U-pick operations, Community Supported Agriculture (CSA), and other complementary uses.
- f. To the extent that non-farm development occurs in agricultural areas, encourage development that can co-exist with farming and supports the continuation of family farms.

Goal 2. **NATURAL FEATURES.** Forest Home Township will promote the sustainable use of natural land and water features through the protection of high-quality habitats, groundwater protection strategies, and encouragement of compatible land uses that are integrated with the natural environment.

Objectives :

- a. Encourage more intense development in areas with heightened public services and infrastructure to accommodate such development, while limiting development in environmentally sensitive areas.
- b. Implement water quality protection strategies for lakes and streams in the Township, such as public education of contaminants and green infrastructure,

preservation of naturally vegetated buffers along all streams and lakes, and implementation of best management practices for stormwater management.

- c. Preserve scenic views through careful regulation of land uses that could negatively impact the Township's rural character, protection of natural features along ridgelines such as views and vistas, and creative development that produces visual harmony and preserves special features.
- d. Periodically evaluate the need for public acquisition of environmentally sensitive areas located within the Township.
- e. Preserve the continuity of natural features (greenway infrastructure) such as woodlands and wetlands in order to preserve permanent open space and protect important wildlife corridors.
- f. Promote natural vegetation in order to reduce impacts of invasive species and sustainably manage woodlots through clear-cutting permits and replanting trees whenever possible.
- g. Cooperate with the Antrim County Road Commission to prevent excessive widening, paving, and curbing, and design roads to follow the natural contours.
- h. Review and adjust zoning standards, as appropriate, to protect natural resources, control urban sprawl, retain large parcels, and ensure best practices are utilized in each zoning district.

Goal 3. RECREATION. Forest Home Township will support existing recreational activities and encourage additional opportunities that enhance the community's natural features for the enjoyment of residents, visitors, and future generations.

Objectives:

- a. Preserve and maintain public lands, access sites, and natural areas.
- b. Protect environmentally sensitive lands such as wetlands, steep slopes, scenic views, etc. for open space and passive recreational uses.
- c. Design and incorporate signage and/or kiosks for recreational features which highlight unique features, trails, and parks, such as the Chain of Lakes Water Trail through Paddle Antrim.
- d. Support the work of the Forest Home Township Parks and Recreation Commission, along with cooperative recreational planning development with surrounding townships, villages, and Antrim County.
- e. Encourage the development of public trail systems on land and by water and work to increase tourism rooted in the unique rural character and growing recreation culture.
- f. Develop programs for the use and protection of public lands in Forest Home Township.

- g. Develop and maintain a Five-Year Parks and Recreation Plan to establish and remain eligible for recreation grants through the Michigan Department of Natural Resources (DNR).

Goal 4. HOUSING. A broad range of housing options in the Township will serve a variety of ages, income levels, and lifestyles of residents.

Objectives:

- a. Encourage housing that is complementary with the surrounding natural and built environments, especially supporting those which include the preservation or protection of natural resources through conservation easements or similar binding tools.
- b. Confine higher density housing to areas with existing services and infrastructure available to support more intense uses.
- c. Promote a pedestrian-paced environment through sidewalks, bicycle paths, walking trails, parks, playgrounds, or similar amenities, as appropriate, in coordination with existing and planned residential densities.
- d. Encourage senior housing options, such as independent living centers, assisted living facilities, and nursing homes.

Goal 5. ECONOMIC DEVELOPMENT. Commercial development will be compatible with existing land use patterns, meeting the needs of residents and visitors in accordance with the character and capacity of the Township.

Objectives:

- a. Support agri-tourism and farming operations as viable businesses in the Township.
- b. Encourage commercial uses in or near areas with existing commercial development and which contribute to the Township's rural character through a complementary scale, design, and size with surrounding land uses.
- c. Discourage the encroachment of commercial uses into residential and agricultural areas and mitigate impacts from more intense uses through landscape buffers, screens, or additional natural features on the site.
- d. Evaluate and revise zoning standards, as appropriate, to ensure new development in commercial areas are attractive, inviting, and sustainable.
- e. Encourage commercial development that serves the local population through the provision of various goods, services, and/or employment opportunities.
- f. Encourage connections between water features and commercial areas through

attractive wayfinding signage and improved pedestrian and bicycle access.

Goal 6. COMMUNITY SERVICES. The Township will retain its rural character while meeting the needs of residents and visitors through sustainable growth.

Objectives:

- a. Direct future development to areas with sufficient infrastructure, facilities, and utilities to accommodate such uses.
- b. Research and consider adopting ordinances for alternative energy (wind generators, solar power, outdoor wood boilers, etc.)
- c. Review and revise the zoning ordinance, as appropriate, to ensure the site plan review process considers development in coordination with available facilities and services.
- d. Discourage the expansion of public utilities into areas designated for conservation or resource protection.
- e. Provide opportunities for the public to provide input on growth and public service issues, such as police and fire protection, recycling, potable water and sewage disposal, and recreation opportunities.

Goal 7. TRANSPORTATION. Forest Home Township will promote the continued development of a safe and efficient transportation network that is consistent with the rural character of the Township.

Objectives:

- a. Invest in wayfinding signage that highlights the Township's unique natural resources and promotes safe transportation for all road users, including pedestrians and bicyclists.
- b. Coordinate efforts with the Antrim County Road Commission to identify important road segments in need of repair and plan for their improvement and maintenance.
- c. Where appropriate, encourage and provide alternate forms of transportation such as sidewalks, bike lanes, and trails.
- d. Promote the continuance of the Township's rural character through future residential lot splits that maintain the integrity of township roads.
- e. Encourage flexibility in public and private road design, where practical, in order to minimize alterations to the natural topography, limit clearing of natural features, and prevent disturbances to natural features.

Goal 8. COMMUNICATION & COORDINATION. Forest Home Township will guide future growth, development, public service, and preservation efforts in consideration of the regional context, foster positive relationships with neighboring communities, and pursue effective communication with residents.

Objectives:

- a. Promote intergovernmental and regional cooperation on issues of mutual concern and planning efforts, recognizing the role of the Village of Bellaire as a center for urban development and public services.
- b. Promote the involvement of community volunteers in governmental processes.
- c. Ensure a responsible fiscal policy and budget process to finance township government.
- d. Utilize a proactive master planning process as a check and balance on responsible decision making.
- e. Improve communications with property owners by publishing a semi- annual newsletter and updating the website.
- f. Hold an annual joint meeting with the Forest Home Township Board of Trustees, Planning Commission, Park and Recreation Committee, Zoning Board of Appeals, parcel Division Committee and Fire Board.
- g. Encourage the Board of Trustees to work closely with area service providers (police, fire, ambulance, senior services, cleanup, recycling, etc.)
- h. Encourage the Planning Commission to attend educational opportunities.

Chapter 8 Future Land Use and Zoning Plan

This section of the Master Plan builds upon the goals and objectives, translating the Township's vision into a future land use plan for physical development. In addition, a zoning plan is provided throughout the chapter, relating the future land use categories to the current zoning districts of the Township, as required by the Michigan Planning Enabling Act.

Planning is guiding land uses from a policy standpoint, while zoning is the act of regulating the use of these lands by ordinance or law. The future land use map, Map 16, and the supporting narrative below is meant to be a guide for the Township as it contemplates rezoning and development applications. Map 16 is not a zoning map; rather, it illustrates distinct locations of future land use designations in the Township and will be used to guide rezoning decisions. These designations help define the desired future character of the Township and support a sustainable and desirable land use pattern. Throughout the narrative, they are also compared to existing zone districts in the Township's Zoning Ordinance in order to evaluate the degree to which a proposed rezoning is, or may be, consistent with this Plan during an evaluation of a specific rezoning request.

The timing of particular uses is dependent on a number of factors, including availability of necessary infrastructure, effect on public services, environmental characteristics, and the demand for the use as determined by market forces. Map 16 establishes a general blueprint of land use to foster efficient growth patterns that preserve the community's cherished rural character, while encouraging certain types of development in specific, identified areas.

In all cases, the zoning plan outlined in this chapter should be applied as a guideline for the Township, subject to the appropriate application of the discretionary authority permitted to the Planning Commission and Township Board by statute, case law, and good planning practice. Nothing in this zoning plan will preclude the Township Planning Commission and Township Board from considering amendments to this Plan to better serve the public interests of the community.

The following narrative supports, and is meant to be used in conjunction with, Map 16.

FUTURE LAND USE

Agricultural

| Future Land Use Designation | Supporting and Compatible Zoning Districts | Potentially Compatible Zoning Districts | Evaluation Factors and Features to Determine Eligibility for Potentially Compatible Zoning Districts |
|-----------------------------|--|---|--|
| Agricultural | A, Agricultural | RR, Rural Residential | <ul style="list-style-type: none"> • Developments should preserve large tracts of farmland and natural features. • Very low density residential uses may be appropriate when farming activities are limited or lands are unsuitable for agriculture. |

The Agricultural future land use designation represents the largest portion of the Township, including the majority of farmed lands, open space, and low-density residential uses. Agricultural operations are a primary land use in the Township. These operations are viewed positively, as farms establish a strong rural character and help to define the community. It is well documented that farms and non-farm uses can conflict with each other, for a variety of reasons. It is further recognized that non-farm development in transitional agricultural areas tends to have a domino effect, undermining the economies of scale in agricultural production that is afforded with relative size and contiguity of highly productive or unique soil classifications. Land use decisions in Agricultural areas should be mindful of these considerations. Emphasis should be placed on preservation of large, contiguous tracts of farmland and land with prime, unique, or local importance as defined by the Nature Resource Conservation Service (NRCS). The Agricultural future land use designation is meant to accommodate farming activities and agricultural support services and to recognize the desire of residents to maintain the Township's farmland and rural character.

In addition, this designation includes many natural areas and low-density, single-family homes in rural environments that provide the opportunity for small-scale or hobby agricultural activities. These areas will likely remain dominated by scattered land divisions and pockets of farmland and natural areas. Most of the Township's protected lands occur in this designation and should be preserved through low-intensity land uses. The Agricultural designation is meant to accommodate country living, while also protecting the features that characterize that development form.

Rural Residential

| Future Land Use Designation | Supporting and Compatible Zoning Districts | Potentially Compatible Zoning Districts | Evaluation Factors and Features to Determine Eligibility for Potentially Compatible Zoning Districts |
|-----------------------------|--|--|---|
| Rural Residential | RR, Rural Residential | PRD, Planned Residential District (or similar district) C, Commercial | <ul style="list-style-type: none"> • Development should be designed to protect the highest priority natural features, such as wetlands, slopes, and woodlands. |

The Rural Residential future land use designation is similar in character to Waterfront Residential areas, but are not located along a shore and are less dense overall. The Low Density Residential designation has been crafted in recognition of existing patterns and the probable continuing demand for family-oriented, single-family neighborhoods. These areas of the Township are transitional between the waterfronts and more rural parts of the community. Clustered residential development is supported in this designation. This form of development allows several smaller lots to be clustered on a portion of a development parcel so that the remaining land can be dedicated as permanent open space for the preservation of important environmental resources. These new homes should have access on new interior roads rather than stripped development along existing non-subdivision roads. The intent of this designation is to foster the preservation of sensitive natural resources and to maintain the single-family residential character of the Township’s neighborhoods.

Village Residential

| Future Land Use Designation | Supporting and Compatible Zoning Districts | Potentially Compatible Zoning Districts | Evaluation Factors and Features to Determine Eligibility for Potentially Compatible Zoning Districts |
|-----------------------------|--|--|---|
| Village Residential | VR, Village Residential | PRD, Planned Residential District (or similar district) Commercial | <ul style="list-style-type: none"> • Development should be designed to protect the highest priority natural features. • Pedestrian safety, walkability, and neighborhood connections should be promoted. • Development should only occur where infrastructure and public services are available. |

A primary goal of the Village Residential future land use designation is the preservation of the Township's rural character by promoting high-quality and aesthetic forms of development that permit higher density residential uses while creating a very attractive living environment for residents. This designation's primary purpose is to offer a suitable location for residential dwellings that accommodate a variety of age and income levels. In addition, these areas are intended to serve as receptors for senior living environments and care services. The Village Residential area is located north of the Village of Bellaire and intended to be a part of a broader walkable framework in close proximity to the neighborhood services provided in the Village. New development in these areas should be designed as open space communities, with clusters of lots or buildings gathered around large expanses of green space, sidewalk or internal trail connections, and a small-scale design, all contributing to the character of the community. Pedestrian safety, walkability, and interconnection between neighboring developments should be considered in new developments.

The higher density of this designation, however, should not have a negative impact on stormwater flow, natural features, local infrastructure, and surrounding property. Moreover, the Township is not served with public water and sanitary sewer infrastructure and consequently, large areas or concentrations of this higher density designation are not appropriate at this time and therefore have not been planned. Future development should occur in accordance with the character and capacity of the land; therefore, it is expected that this designation will develop slowly due to the current lack of infrastructure.

Waterfront Residential

| Future Land Use Designation | Supporting and Compatible Zoning Districts | Potentially Compatible Zoning Districts | Evaluation Factors and Features to Determine Eligibility for Potentially Compatible Zoning Districts |
|-----------------------------|--|---|---|
| Waterfront Residential | WFR, Waterfront Residential District | WC, Waterfront Commercial | <ul style="list-style-type: none"> Rezoning to WC should only be considered where infrastructure is available to support more intense development and natural features will be minimally impacted. |

The Waterfront Residential designation defines areas of suitable development along the Township’s lakes. The lakes and rivers located in Forest Home Township are substantial recreational amenities and enhance the appeal of the community as a prime residential area within the region. Additionally, the water bodies and the surrounding land are valued for ecological significance and treasured for aesthetic value. As such, waterfront residential areas will warrant special planning attention when implementing this Master Plan.

Some of the Township’s lakes have acted as magnets for residential development and will remain attractive places for residential uses and recreation activity. Conversely, other shore areas retain a pristine and relatively untouched character and have not attracted much development or have remained relatively low-density over time. In the former case, development regulations should recognize existing development patterns while applying realistic standards that support the long-term viability of the lake. In the latter case, wetlands and other natural features have generally foreclosed the prospect of development, and pre-settlement characteristics of the water body and surrounding land should be preserved insofar as possible.

A significant portion of the existing lakefront areas in the Township are developed in relatively high-density patterns to take advantage of the lake amenity. In some cases, the scale of nearby development may impact lake water quality. Development within the Waterfront Residential designation should be scaled appropriately to the particular body of water to minimize any adverse effects on natural features.

Additionally, impervious surface limitations and other policies that reduce the quantity and velocity of runoff and increase the quality of runoff will be encouraged.



Waterfront Commercial

| Future Land Use Designation | Supporting and Compatible Zoning Districts | Potentially Compatible Zoning Districts | Evaluation Factors and Features to Determine Eligibility for Potentially Compatible Zoning Districts |
|-----------------------------|--|---|---|
| Waterfront Commercial | WC, Waterfront Commercial | C, Commercial | <ul style="list-style-type: none"> • Development should remain small scale, serve surrounding neighborhoods, designed to reflect rural character, and not conflict with residential uses. • Development should only occur where infrastructure and public services are available. |

The Waterfront Commercial future land use designation is intended to recognize existing non-residential land uses that complement existing lakeside neighborhoods. Presently, this designation is comprised of one location in the southwest portion of the Township. This area should be designed to accommodate establishments that offer goods and services to



residents and visitors. Desired uses include retail, personal service establishments, restaurants, and similar uses, but the predominant uses are related to marine services. While these uses are acknowledged for their contribution to the community and the necessity of services they provide, such uses should not encroach further into residential areas. By limiting high-impact development, the integrity and cohesiveness of neighborhoods and lake quality is protected. Waterfront Commercial areas should be compatible with surrounding residential uses.

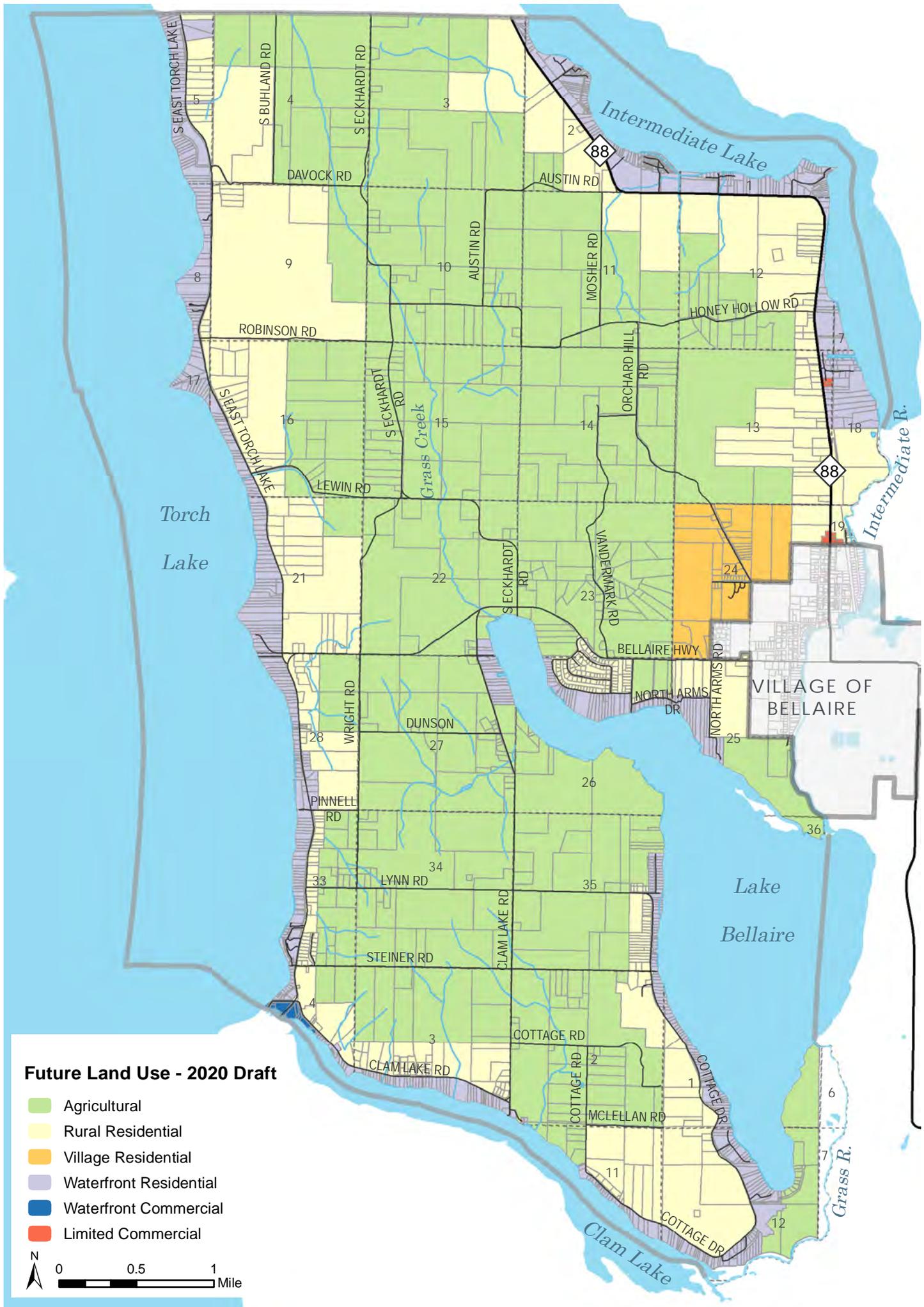
Limited Commercial

| Future Land Use Designation | Supporting and Compatible Zoning Districts | Potentially Compatible Zoning Districts | Evaluation Factors and Features to Determine Eligibility for Potentially Compatible Zoning Districts |
|-----------------------------|--|---|---|
| Limited Commercial | C, Commercial | VR, Village Residential | <ul style="list-style-type: none"> • Development should be complementary to the Village of Bellaire. • Development should only occur in coordination with available infrastructure. |

The Limited Commercial future land use designation is established to recognize expanding development north of the Village of Bellaire along M-88. Uses in this designation may require larger land areas, such as a garden center. However, such a commercial node is intended to be small in scale with uses serving the immediate vicinity, as infrastructure and roadways do not have the capacity to support large-scale commercial development. These uses should complement and support the area’s commercial core in the Village of Bellaire. It is not the intent of the Township to encourage commercial land uses that would compete with the recognized downtown area in the Village.

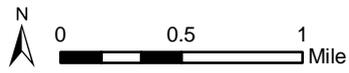
PHASED ZONING

This plan recommends that rezoning of lands to a more intense zoning district be done incrementally, or in phases. Although the Township may identify locations that are appropriate for districts with higher densities or greater infrastructure than is currently permitted, the Plan does not recommend immediate rezonings of such land. Rather, this Plan supports rezoning to more intensive districts over time and in small increments as public service demands and infrastructure are available to accommodate such uses. Rezonings should occur in response to a demonstrated need and minimize unnecessary hardships on a landowner. Due to the Township’s rural character, this Plan recommends minimal rezonings to more intensive districts at this time.



Future Land Use - 2020 Draft

- Agricultural
- Rural Residential
- Village Residential
- Waterfront Residential
- Waterfront Commercial
- Limited Commercial



Chapter 9 Implementation Strategies

This Chapter provides an overview of initial strategies that will help the Township achieve the goals and objectives of the Master Plan, as well as address other policy considerations. These implementation strategies provide a framework for achieving the community vision set forth in this Plan. They are intentionally general in order to allow the Township to prioritize each strategy within municipal operations and have flexibility while preparing work assignments. Accomplishing these strategies may also involve various methods, such as ordinances, administrative procedures, and other policy frameworks.

Primary responsibility for implementing the Plan rests with the Forest Home Township Board and Planning Commission. However, many of the ideas presented in this Plan will be long-term in nature and in many instances, entities in addition to the Forest Home Township Board, Planning Commission, and staff will need to cooperate in order to fully implement this Plan. In other instances, the Township's role is that of facilitator or administrator. Several of the approaches outlined below will require significant investment. While a few of the recommendations conceived during the planning process are challenging and ambitious, they will be feasible with the commitment of the Township, property owners, and regional entities.

COMMUNITY ENGAGEMENT AND EDUCATION

The planning process is dynamic, as it is impacted by changes in social and economic factors at the local, state, and national levels. Therefore, communication and education are vital to effectively plan for the future. Because every community is unique, land use challenges and opportunities must be specifically tailored to a community. This should include communication between and education of community leaders, business owners, and citizens.

To improve transparency and communication, the Township should look for ways to provide news and information to the public. This may include improvements to the website, such as online forms for development, updated community news, and information for visitors. Moreover, the Township could utilize social media, email, enhanced or more frequent newsletters, educational flyers, and special meetings to specifically address the Township's planning efforts with the public. All of these measures may be used to promote the Township's unique environment as an exceptional place to live, work, and play, and to regularly communicate with residents.

Township officials should also pursue continued education on relevant planning and zoning trends. Knowledgeable officials strengthen the knowledge of the community. By remaining updated on current planning trends, public issues affecting the community, and implementation of goals and objectives of this Plan, the community can be better aware of pertinent issues and opportunities.

Township officials may also establish committees to delegate responsibilities for achieving the goals and objectives of this Plan. Committees could be comprised of elected or appointed

officials, community stakeholders, and interested citizens. These could address relevant topics in the community, such as a Tourism Committee or a Non-motorized Trails Committee.

ZONING ORDINANCE AMENDMENTS

The Zoning Ordinance is the primary implementation mechanism to achieve the land use goals of this Plan. The Township adopted a new Zoning Ordinance in 2015, which remains in good condition. It is unlikely that any major changes are necessary at this time. However, the Ordinance should be reviewed for consistency with this Master Plan and amended as necessary. This may include a review of the following for continued effectiveness and applicability:

- Existing stormwater management and groundwater protection.
- Measures for shoreline protection and natural resource preservation.
- Site and building standards in commercial districts.
- Signage language that is content neutral.
- Language to encourage open space and walkability in appropriate environments.
- Evaluation of the zoning map designations compared to the updated Future Land Use map.
- Consideration and regulation of short term rentals.

Any resulting amendments to ordinances may require the review of the Township's or County's legal counsel and ultimately adoption by the Township Board.

FARMLAND AND OPEN SPACE PRESERVATION

Defining elements of Forest Home Township are its rolling hills and vast open spaces. The goals and objectives of this Master Plan support the continuation of agricultural activities and preservation of open space, as these are important to maintain the character and quality of life in the Township.

The Michigan Department of Agriculture's Farmland and Open Space Preservation Program offers several methods that the Township can use to help promote farmland and open space preservation. The program also authorizes local governments to participate in methods that encourage the continuance of agricultural operations. Following are tools that should be endorsed and advertised by the Township. Note that these programs are voluntary and that there are many ways to maintain open space and farmland, but the following list is intended as a starting point for the Township. The Township should work to promote and encourage the following:

- A. Farmland Development Rights Agreements (PA 116). This is a temporary, voluntary restriction on the land between the property owner and the State, which protects the agricultural use of the land in return for tax benefits and special assessment exemptions.

- B. Purchase of Development Rights (PDR). This is a permanent, voluntary restriction on the land between the property owner and the State that preserves the land for farming in exchange for a cash payment. This State program is currently not funded, but may be in the future. Antrim County offers a local PDR program through its Farmland and Open Space Preservation Board.
- C. Agricultural Preservation Fund. In order to help implement a local purchase of development rights program, this fund was created to provide assistance to local units of government.
- D. Local Open Space Easement. These are also voluntary and temporary, but represent an agreement between the landowner and the Township, where certain tax benefits and exemptions from various assessments are made possible.
- E. Conservation Easement Donation. Conservation Easement Donations are permanent restrictions voluntarily entered into by the landowner between the same and the State, preserving the land for either farmland or open space.
- F. Designated Open Space Easement. This is a temporary, voluntary restriction on the land between the property owner and the State, which maintains the land as open space in return for tax benefits and special assessment exemptions.
- G. Transfer of Development Rights. A transfer of development rights program would identify “sending zones” or areas to be preserved – such as agricultural lands and sensitive environmental areas – and “receiving zones” or planned development areas. The sending zones are areas where farmland and open space preservation is most important and the receiving zones are areas where development is appropriate, and these zones may overlie adjacent municipalities. A program would permit a landowner to dissolve development rights from a property in a sending zone, and sell the rights to someone seeking to increase density in a development in a receiving zone.

Legal authority to establish a transfer of development rights program is unclear, as State enabling legislation has not been enacted. Township leaders may work with legislators to craft such legislation to promote transfer of development rights as an effective and viable means to preserve open space and farmland. As the community explores the possibility of creating a program, procedures and regulations that govern the transfer of rights should be aligned to meet local objectives.

NATURAL RESOURCES AND SUSTAINABILITY

The Forest Home community is committed to plan for sustainability and the protection of natural resources. The community is distinctively positioned amidst significant water features and other resources and it is recognized that proactive planning is necessary to ensure the continued viability of these features and resources. In addition to the principles noted below, the community supports continued efforts to help protect the vital natural resources by directing development to areas of minimum sensitivity.

Measures to protect natural resources in the Zoning Ordinance, as recommended in the 2012 Master Plan, were addressed in the 2015 Zoning Ordinance rewrite. A Stormwater Runoff Control Ordinance was created and standards related to the built environment were reviewed and modified, as necessary. This this re-write the Planning Commission may review and revise the Ordinance, as necessary, to ensure these standards are effectively protecting natural resources, preserving scenic roads and viewpoints, and encouraging efficient forms of development and green infrastructure.

Further implementation of natural resource sustainability should include the creation of a 5-Year Parks and Recreation Master Plan. Due to its exceptional natural features, the Township accommodates extensive recreational interests from residents and visitors each year. The creation of a Parks and Recreation Master Plan would allow the Township to seek additional recreational opportunities and evaluate those that exist. An optional feature during the development of this plan is a natural resource inventory. This Master Plan recommends that the inventory be completed to supplement the Township's knowledge of its extensive natural features and serve as a guiding resource for the preservation of those features. Any threatening developmental trends can be more easily identified when compared to a natural resource inventory. The development of a Parks and Recreation Plan also makes the Township eligible for funding assistance from the Michigan Natural Resources Trust Fund, Land and Water Conservation Fund, Waterways Grants, and Passport Grants program. These grants are awarded each year and can be used to help offset the costs of developing or improving park and recreational facilities in the Township.

NON-MOTORIZED TRAILS AND WATER TRAILS

Trails encourage health and wellness, enhance quality of life, and promote a sense of community. Trails can also improve non-motorized system safety and provide an alternative means of transportation. The Township should prepare a non-motorized plan that highlights proposed trail routes or include a comprehensive review of non-motorized transportation in the 5-Year Parks and Recreation Plan.

Several entities can provide assistance with trail planning and funding. These include the Michigan Trails and Greenways Alliance, the Safe Routes to School Program, PeopleForBikes, the Networks Northwest, Rails-to-Trails Conservancy, and the Antrim County Parks Department. In addition, the Michigan Department of Transportation may provide funding for numerous types of projects that



encourage safe, accessible, and efficient forms of multi-modal transport, including non-motorized facilities and other improvements related to transportation. Grant programs to investigate include the Transportation Alternatives Program and the Michigan Office of Highway Safety Grants. The two most likely sources to fund trails in Forest Home Township, however, may be the Natural Resources Trust Fund and the Land and Water Conservation Fund, popular Michigan Department of Natural Resources programs. To be eligible for this funding, the Township would need a 5-Year Parks and Recreation Plan approved by the DNR. While most recreation grants will stipulate a minimum required local match, it is possible to be awarded grant dollars from multiple funding sources and often, a community can use the monies leveraged from one source toward the match for another.

The Township should also encourage water trail routes and support the efforts of the Chain of Lakes Water Trail Campaign through Paddle Antrim. A water trail is a “blueway” of marked routes on navigable waterways such as lakes and rivers for non-motorized watercraft. They function similar to a non-motorized trail and would require plentiful access points and designated areas ashore for restrooms, picnicking, and other amenities. Water trail routes can boost tourism, as well as make the area more attractive for year-round residents.

COMPLETE STREETS

This Plan supports complete streets principles. Complete streets are thoroughfares that are planned, designed, and constructed to allow access to all legal users safely and efficiently, without any one user taking priority over another. Users in Forest Home Township primarily include pedestrians, bicyclists, motorists, users of assistive devices, snowmobilers, and truck-drivers. Complete streets can result in increased safety for non-motorized users, improved public health, a cleaner environment, mobility equity, and enhanced quality of life through increased modal choices and more inviting streets.

In addition, another key motivation to embrace complete streets principles is that Michigan law encourages the Michigan Department of Transportation to give additional consideration to enhancement and other grant applicants with such policies. The Michigan Planning Enabling Act has also been amended to stipulate that transportation improvements be respectful of the surrounding context, further ensuring that more equitable and attractive streets become reality.

Forest Home Township is a rural community and many complete streets concepts are not feasible here. Nevertheless, elements such as bicycle lanes are feasible in some locations and would enhance bicyclist safety. Other features may be appropriate in the more developed areas of the Township or along a major road where bicycle or other non-motorized traffic is routinely evident.

The community’s objective will be to work jointly with surrounding communities to enhance transportation corridors for people of all abilities through the development of a non-motorized network. Suggested design elements may include sidewalks in certain locations; pedestrian signals and signage; bike lanes; local and regional multi-use trails as discussed above; and other features.

Some features may be accomplished through simple road restriping and the addition of signage. Other projects may be more involved and may only be practicable when coordinated with relatively major roadway improvements. The Township should cooperatively work with neighboring communities, the Antrim County Road Commission, MDOT, and other pertinent agencies in implementation of this policy.

TOURISM AND MARKETING

The Township should work with regional entities in promoting the community's resources to enhance tourism. Forest Home's unique tourism industry is rooted in the small-town character of Bellaire as well as the growing recreation culture associated with the lakeshores. The Township should support efforts of regional marketing campaigns and ensure that the community's amenities are actively marketed.

Specifically, the Township should consider the following four aspects when marketing its natural features and recreational opportunities:

1. **Signage.** Trail directional signs, interpretive signs, or brochures may be used to enhance readability of trail directions and education of the local area. Applicable rules or ways users can participate in management recommendations can be posted to clearly outline desired trail uses. Additionally, new trail technologies are becoming increasingly popular. Using a QR code, GPS, or other technologies can be an efficient and effective way to communicate trail information.
2. **Public Communication.** Trail and natural feature information should be readily available to the public. The Township may partner with the Village of Bellaire and other neighboring municipalities to promote unique features within the Township. This may include updated recreational information on the Township's website, newsletters, or social media. Public presentations on key topics or reports may also keep the public up-to-date on key features in the community.
3. **Support.** The Township should coordinate with Bellaire to promote recreational opportunities, such as brochures or information at annual events. Successful trail plans and upcoming opportunities should be presented to engage the community with recent trail and natural feature developments. The Township should also pursue grants as applicable to enhance amenities and facilities at parks.
4. **Education.** Interpretive features along trails, at visitor centers, on trail boards, or on kiosks may enhance user education and develop greater appreciation of the area. Written materials or signage can help users understand the natural and cultural backgrounds of different areas, such as the geologic processes which formed the Township's unique water features. Additionally, stewardship programs can be created to encourage sustainable practices during recreational activities.

ADHERE TO THE FUTURE LAND USE PLAN

The Township should strive to make decisions that are in harmony with the future land use plan. Nevertheless, the policies of this Master Plan should be viewed as flexible, and they should be revised as the character of the community changes over time. The Plan should be reviewed and periodically updated at least once every five years to remain current and to meet statutory provisions. As stated in the future land use chapter, proposed land uses should be consistent with the future land use designations. However, the Township may determine that a proposed land use would not be consistent with the applicable future land use designation, but would not be incompatible with the underlying policies of the Plan and would represent a logical extension of land use. It may therefore be a preferred alternative to the Plan and the Plan may be amended accordingly.



Appendix D Adopting Resolutions

FOREST HOME PLANNING COMMISSION
ANTRIM COUNTY, MICHIGAN
(Resolution No. 1-2021)

At a regular meeting of the Forest Home Township Planning Commission held on October 6, 2021 at the Forest Home Township Hall, the following Resolution was offered for adoption by Planning Commission Member Steiner and was seconded by Planning Commission Member Dewey:

**A RESOLUTION RECOMMENDING ADOPTION OF THE PROPOSED
FOREST HOME TOWNSHIP MASTER PLAN TO THE TOWNSHIP
BOARD AND CONSTITUTING PLANNING COMMISSION APPROVAL
OF SUCH MASTER PLAN**

WHEREAS, the Michigan Planning Enabling Act, MCL 125.3801 *et seq.* (“MPEA”) authorizes the Planning Commission to prepare a Master Plan for the use, development, and preservation of all lands in the Township; and

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

WHEREAS, on August 5, 2021, the Forest Home Township Board received and reviewed the proposed Master Plan prepared by the Planning Commission and authorized distribution of the Master Plan to the Notice Group entities identified in the MPEA; and

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

WHEREAS, the Planning Commission held a public hearing on today's date to consider public comment on the proposed Master Plan, and to further review and comment on the proposed Master Plan; and

WHEREAS, the Planning Commission finds that the proposed Master Plan is desirable, proper, and reasonable and furthers the use, preservation, and development goals and strategies of the Township;

NOW, THEREFORE, BE IT HEREBY RESOLVED AS FOLLOWS:

1. ***Approval of 2021 Master Plan.*** The Planning Commission approves the proposed Master Plan, including all of the chapters, figures, descriptive matters, maps, and tables contained therein.

2. ***Distribution to Township Board.*** Pursuant to MCL 125.3843, the Township Board has asserted by resolution its right to approve or reject the proposed Master Plan and therefore, the approval granted herein is not the final step for adoption of the plan as provided in MCL 125.3843. In addition, the Planning Commission hereby approves distribution of the proposed Master Plan to the Township Board. The Planning Commission respectfully recommends that the Township Board give final approval and adoption of the proposed Master Plan.

3. ***Findings of Fact.*** The Planning Commission has made the foregoing determination based on a review of existing land uses in the Township, a review of the existing Master Plan provisions and maps, and input received from the Township Board and at the public hearing, as well as the assistance of a professional planning group. The Planning Commission also finds that the proposed Master Plan will accurately reflect and implement the Township's

goals and strategies for the use, preservation, and development of lands within Forest Home Township.

4. ***Effective Date.*** The Master Plan will be effective upon adoption by the Township Board.

YEAS: Steiner, Trumble, Dewey, Cran

NAYS: None

ABSENT/ABSTAIN: Sheneman

RESOLUTION DECLARED ADOPTED.

Respectfully submitted,

Dated: October 6, 2021

By: 
Paul Trumble,
Planning Commission Chairperson

**FOREST HOME TOWNSHIP
ANTRIM COUNTY, MICHIGAN**

(Resolution No. 2/2020 - 2021)

At a regular meeting of the Forest Home Township Board held on October 7, 2021, at the Forest Home Township Hall, the following Resolution was offered for adoption by Board Member Kent and was seconded by Board Member Crandall:

**A RESOLUTION ADOPTING THE PROPOSED
FOREST HOME TOWNSHIP MASTER PLAN**

WHEREAS, the Michigan Planning Enabling Act, MCL 125.3801 *et seq.* ("MPEA") authorizes the Planning Commission to prepare a Master Plan for the use, development, and preservation of all lands in the Township; and

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

WHEREAS, on August 5, 2021, the Forest Home Township Board received and reviewed the proposed Master Plan prepared by the Planning Commission and authorized distribution of the Master Plan to the Notice Group entities identified in the MPEA; and

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

WHEREAS, the Planning Commission held a public hearing on October 6, 2021, to consider public comment on the proposed Master Plan, and to further review and comment on the proposed Master Plan; and

WHEREAS, after the public hearing was held, the Planning Commission voted to approve the proposed Master Plan on October 6, 2021 and recommended adoption of the proposed Master Plan to the Township Board; and

WHEREAS, the Township Board finds that the proposed Master Plan is desirable, proper, reasonable, and furthers the use, preservation, and development goals and strategies of the Township.

NOW, THEREFORE, BE IT HEREBY RESOLVED AS FOLLOWS:

1. ***Adoption of Master Plan.*** The Forest Home Township Board hereby approves and adopts the proposed Master Plan, including all of the chapters, figures, descriptive matters, maps, and tables contained therein.

2. ***Distribution to Notice Group.*** Pursuant to MCL 125.3843, the Township Board approves distribution of the Master Plan to the Notice Group.

3. ***Findings of Fact.*** The Township Board has made the foregoing determination based on a review of existing land uses in the Township, a review of the existing Master Plan provisions and maps, and input received from the Planning Commission and the public, as well as the assistance of a professional planning group. The Township Board also finds that the proposed Master Plan will accurately reflect and implement the Township's goals and strategies for the use, preservation, and development of lands within Forest Home Township.

4. ***Effective Date; Repeal.*** The proposed Master Plan shall become effective on the adoption date of this resolution. The prior Master Plan is hereby repealed upon the proposed Master Plan becoming effective.

YEAS: Kent, Crandall, Steiner, Mahan,
Smith

NAYS: None

ABSENT/ABSTAIN: None

RESOLUTION DECLARED ADOPTED.

CERTIFICATION

I hereby certify that the above is a true copy of a resolution adopted by the Forest Home Township Board of Trustees at the time, date, and place specified above pursuant to the required statutory procedures.

Respectfully submitted,

Dated: October 7, 2021

By Suzanne R. Mahan
Suzanne R. Mahan
Forest Home Township Clerk