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March 6, 2024

Elmwood Township Planning Commission
10090 East Lincoln Road
Traverse City, MI 49684

Please find enclosed a copy of the Township final approved Master Plan that was adopted February 13, 2024. We are excited for what the future of the Township brings and looking forward to carrying out the vision of our residents.

A handwritten signature in black ink, appearing to read "Ron Lemcool", with a large, sweeping flourish at the end.

Ron Lemcool, Supervisor

Charter Township of Long Lake



MASTER PLAN 2024

CHARTER TOWNSHIP OF LONG LAKE

8870 NORTH LONG LAKE ROAD

TRAVERSE CITY, MICHIGAN 49685

[LONGLAKETOWNSHIP.COM](http://longlaketownship.com)

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SECTION 1. INTRODUCTION

CHAPTER 1. INTRODUCTION & HISTORY

The fundamental purpose of a Master Plan is to enable a community to establish a direction for physical development, capital investment and growth. Therefore, a Master Plan represents a foundation policy statement about what a community is, what its residents value and what those residents and businesses hope the community will become. The Michigan Planning Enabling Act (Public Act 33 of 2008, as amended), specifically gives the Township Planning Commission and the Township Board the authority to prepare and adopt a plan. Once prepared, adopted and maintained, this Plan will serve as an advisory guide for the physical conservation of certain areas and for the development of other areas.

- Long Lake Township adopted its first Master Plan in 1977. As the community continued to experience growth and development, that initial plan provided relatively limited guidance.
- In 1997, the Planning Commission adopted the Long Lake Township Master Land Use Plan. That document was prepared with significant public involvement and with the support of professional planning personnel. The 1997 plan was important in that it outlined key policy objectives and it expressed core values for the community. However, as the plan was placed into service, the pace and scale of growth in the Township and the direction of development in the Grand Traverse region, caused the Planning Commission to seek a further refinement of the general policy statements it contained.
- In 2006, the Township adopted the Long Lake Comprehensive Plan following two years of work by residents, Township officials, and professional consultants. It reflected the community's deep concern for the natural beauty of its surroundings and a strong commitment to retain and strengthen local quality of life. The plan outlines the preferred future for the community and a comprehensive plan to realize it. The Plan included a long and specific list of implementation strategies to implement the Plan goals and objectives. By and large, these recommended strategies have been implemented – from revising the zoning ordinance to developing a natural features inventory to creating regulations for short term rentals.
- In 2020, the Planning Commission began to develop a revision of the 2006 Plan, to be called the Long Lake Township Master Plan. The Planning Commission focused their efforts on updating the Plan but keeping the same general document and organization.

PLAN METHODOLOGY

The Planning Commission began by revisiting the Plan's goals and objectives in Chapter 7. A preliminary revision of the remaining Plan elements – the Future Land Use categories and descriptions and the implementation strategies came next along with the addition of a Zoning Plan.

The remaining chapters of the Plan were revised and updated, including all of the community profile elements – Natural Features and the Environment; Demographics; Housing, Income & Economic Development; Land Use and Development Patterns; and Transportation and Community Facilities. Finally, the Planning Commission finalized the initial Plan draft including a History of Long Lake Township in the Plan introduction.

Because of the pandemic restrictions on gatherings, much of the public input for the Master Plan came from a detailed public opinion survey. To date, 527 people have completed the survey between July of 2021 and May of 2022.

The Township held a public open house on July 20, 2023. A summary of the elements of the proposed Master Plan was presented at the Open House. These materials were also posted on the Township's webpage. Approximately 60 people commented on these summary materials in person, via written communication, or through a questionnaire posted on the Township's webpage between July 20th and November 28th, 2023.

In accordance with the Planning Enabling Act (Act 33 of 2008, as amended), on September 12, 2023 the Township Board authorized distribution of the draft plan to seek the input and comments of neighboring jurisdictions, including Grand Traverse, Leelanau and Benzie Counties. The Planning Commission held a public hearing on November 28, 2023. Following that hearing, the Planning Commission recommended approval of the Plan and the Township Board adopted a resolution approving and officially adopting this Plan for Long Lake Township on February 13, 2024.

ORGANIZATION OF THE PLAN

This Plan is organized into three sections, each consisting of one or more chapters. This Section I includes this introductory chapter which outlines the purpose of the plan and the process for its development along with a history of the Township. Section II is the Community Profile. It presents an overview description of Long Lake Township from the perspective of:

Natural Features and the Environment (Chapter 2)
Demographics (Chapter 3)
Housing, Income and Economic Development (Chapter 4)
Land Use and Development Patterns (Chapter 5), and
Transportation and Community Facilities (Chapter 6)

Section III constitutes the Comprehensive Plan. It includes the Township's Goals and Objectives (Chapter 7), the Future Land Use Plan (Chapter 8) and the Implementation Strategies (Chapter 9).

HISTORY OF LONG LAKE TOWNSHIP

At one time, there was ice over a half mile thick covering the area of present-day Long Lake Township. As the ice and snow accumulated, glaciers formed and acted like plows, scraping the bedrock and rocks from the surrounding land into hills called moraines. The rolling uplands left behind by a stalled glacier known as “Manistee Moraine” are now the Long Lake Watershed. When the glaciers melted, lakes and rivers were formed from the runoff in the depressions of the earth. The runoff also saturated the porous layers of gravel and sand, to reach the bedrock or clay and became groundwater. Meanwhile, the uplands became home to beech and maple trees, while oak and pine grew in the poorer soils. In the wetlands, white cedar, red maple, black spruce and black ash spread shallow roots in the moist soil. Plants thrived in the newly deposited soils, collecting sediment in their roots, filtering sediments and purifying the water. Trout and Grayling found a haven here, in the cold, clear water. This natural cycle continued for thousands of years.

The area was home to unbroken forest prior to 1858. Mature Mesic Northern Forest, Cedar and Hemlock, Norway Pines, Yellow Birch and Red Maple predominated. Sugar Maple, Elm and Basswood thrived in the dark, sandy loam. Pine was found in the areas of light sandy soil. Beech, Hemlock, Cedar, Ash preferred the darker black much found in wetland areas.

The Ottawa (Odawa) ethnic group, part of the Algonquin-speaking people living throughout the Midwest and parts of Canada, were in the Grand Traverse region when European settlers arrived. Odawa is Anishinaabe for “trader”. The Ottawa traded such items as rugs, tobacco, corn oil, and furs between tribes and also with Europeans.

There were two early settlement areas within the Township’s borders. The settlement of Cedar Run was named after Cedar Run Creek, a cold water trout stream in the northwestern portion of the Township. Starting in Cedar Lake, the stream runs northwest to Benzie County, North to Leelanau County, ending at Carp Lake to the northeast. Where the stream widens, the settlers found that it would provide sufficient energy to power a mill or other machinery.



Just east of the Benzie County line in Section 6 of the Township, near today’s intersection of Cedar Run Road and Cedar Valley Road was the site of the Cedar Run settlement. A post office was established here in 1868. By 1892, the Manistee and Northeastern Railroad passed through and a rail station was built here. There was also a grist mill and store in the settlement. Today there is almost no remnant of this center of activity except for the nearby Long Lake Historical Building (once a one-room school house).



A second settlement in Long Lake was sometimes referred to as Linwood or Neal. A Friends meeting house (now the location of the Long Lake Friends Church), former township hall, and post office were located here in the area of present-day Long Lake Grocery. The post office was known as the Neal Post Office— as Long Lake itself was once called Neal Lake. Linwood Cemetery takes its name from the name of the settlement. Long Lake’s Anishinaabe name was “mame-nesuwan” meaning lake of beautiful sunsets.

Beginning in the early 1860s, the first farms came into being in the township. Early farmers primarily planted spring and fall wheat, oats, corn, rye, potatoes, peas, and roots like rutabagas and beets for feeding animals on the flat lands. Other early farm products included grasses and clover. Maple syrup production thrived. Many wild fruits grew here including blackberries, raspberries, huckleberries, cranberries and strawberries. Locals would gather wild berries and trade them in Traverse City for other goods. Farmers soon found that fruit trees like apples, pears, plums and cherries grow extremely well in this area due to the climate and temperate effect of the slowing changing water temperatures provided by the lakes.

Lumbering played a large role in the early history of Long Lake Township. The Hannah & Lay company, originally from Chicago, came to Traverse City in 1850. The lumber company first purchased an existing mill on the Boardman Lake and began lumbering Traverse City, Mission Peninsula, Yuba, and other areas prior to lumbering in Long Lake Township beginning in the early 1870s. Lumbering resulted in the removal of old growth large trees on level topography and steep grades. These operations then burned scrub and stumps, leaving slabs and tree trunks in the water of the lakes. There were sawmills on Long Lake, Page Lake, and Cedar Run.



Pam Cuthbert served as on the Township's Planning Commission for several years, retiring in 2019. Following is a chronological early history of the Township compiled by Ms. Curthbert:

- 1861 Call for volunteers to fight in the Civil War. Local residents Mr. Atwell, Huellmantell Farm, Wood Russell, Henry Howard, Ira Chase, William Core and Albert Brooks served. According to an article by Mrs. Duryea, all survived.
- 1864 One room school houses established to meet needs of settlers in area, with early schools being taught by women in their homes. Settlers formed a work bee and built the Dunn schoolhouse on Hall's corners in District 3. Ella Johnson was the teacher.
- 1866 Mary Clark began teaching in her home and a schoolhouse was built in District 4 in 1867, with Mary Ann Burnett as teacher.

The first religious services were held in the homes of Christian workers.

- 1867 In District 5, A private school was taught first by George Willobee's mother, an aged paraplegic while sitting in her rocking chair as she was unable to walk. When this schoolhouse was built, John Benjamin was the first teacher.

Long Lake Township was organized in January, 1867. The first town meeting was held in April of 1967 at the house of Mr. Schenck, where the first township officials were elected, with Benjamin H. Durga as supervisor, Clerk, W. Sluyter and Leander Curtis as Treasurer.

- 1868 The first school in District 1 was taught by Miss Mary Satell in her home. She was paid \$.50/week by the three Wells sisters. Later, a log cabin school house was built and the teacher was Fanny Holdsworth.

In District 2, Lone Tree School was built by John Durga and the first teacher was Sarah Waite.

- 1870 First census counted 333 people in township

- 1871 Long Lake Post office was established. There was also a Blacksmith shop, three stores and one meeting hall known as the IOGT hall.

Hannah, Lay & Co began 1871 with a capacity of 8,000,000 feet of pine every summer. It employed 15-20 men. Over 112,000,000 feet of pine was taken from Long Lake Township in 14 years. There were three other mills in the area, including Cedar Run Mill.

- 1874 Long Lake Central School was built on the site of the Friends Church, as the previous cabin built by Durga (Lone Tree School) was deemed too far for children to walk through the woods. The land was purchased for \$20.00.
- 1876 The Union School house was built, and log cabins were also built in sections 6 and 16.
- 1879 Daniel Page, who previously worked for Forest Lodge, purchased 40 acres on Page Lake to establish Page's Resort.

1880 Census counted a population of 455. (Grand Traverse County having a total of 8,422). There were 5 school districts with 5 school buildings and a total of 160 school children. Total equalized value of property was \$164,480. There were 63 farms with average size of 92.22 acres, 90 acres in apple orchards, 191 acres of corn, 122 acres of oats, 82 horses, 103 cows, 167 cattle, 140 hogs, 28 sheep.

1881 The town was redistricted and Neal Post Office established at the northern end of Long Lake. Union School House was sold to the Friends Society to be used a church. Low temp 16 degrees below zero at 6:00 am in January. Large numbers of fish are reported as being taken from the lakes, as much as 50% more than in previous years, including an 8lb pickerel.

1882 Forest Lake Lodge was started in the late 1870s by two families from Chicago, the McCormicks and the Perry Smith family. They formed what was called "the colony" here in Long Lake Township. A company from Chicago purchased land in section 23 which was previously used for foresting, with Page Lake at the entrance of the woods and Fern Lake at the rear, to be used as a summer resort. They built rustic houses and cleaned up the grounds to create a summer retreat named Forest Lodge which was maintained by Charles and Hazel Tilton. Each family had their own house, but there was a common kitchen and eating area, with people who worked in the kitchen living on site in maid's quarters. There was a laundry here too, where women used lake water for washing the guests' laundry.



1883 Eugene Davis bought 300-400 head of sheep and received \$.18 for in Traverse City. He later became the Highway Commissioner. During his tenure, he had all the timber and brush taken off the road north from Friend's Church for a mile and west to the Cedar Run School, making it four rods wide. He was later elected constable and operated the local Templars Lodge with 70 members.

1885 Census count of 590 people

1886 Broom factory started by J. Zimmerman at the head of Long Lake

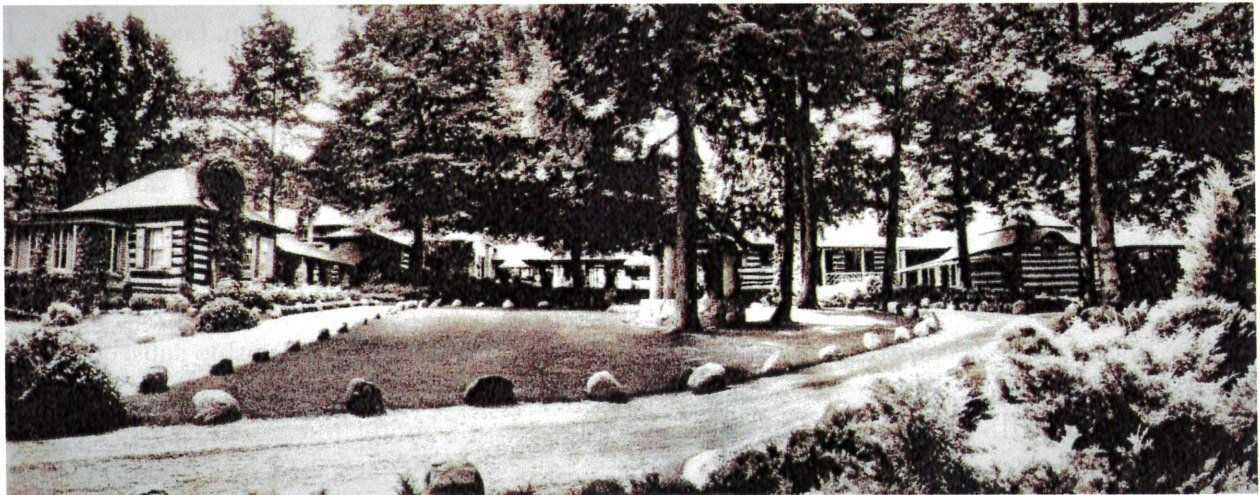
1886 Cedar Run Mill owned by Mr. Norris, was constructed.

1888 Benton Molar had a grocery and general merchandise store in the prior Long View Hall.

1889 Manistee Railroad surveyors struck a straight line from Cedar Hedge to Cedar Run, following that down to Carp Lake and from there into Traverse City.

1903 The township hall in Linwood was valued at \$500. At this time, there were a total of two sawmills – employing 15 to 20 men.

- 1913 The Alladin Club was organized by a group of women who saw a need to help families in the community of Cedar Run. They helped when there was illness in families, sewed clothing for those in need, made quilts and donated furniture to families whose homes had been lost to fire. Social activities included family picnics, box and pie socials as well as religious activities
- 1919 The Timbers – a 360 acre “summer getaway” estate owned by J. Ogden Armour, second wealthiest man on earth at that time, was established. Armour controlled 60% of grain stocks. His Universal Oil Company patented the process of cracking petroleum, a method still used to extract gasoline from crude oil. Architect Arthur Huen from Chicago was chosen to design a self-contained farm at the Timbers. The estate has since been parceled off. Several of the original buildings are now in private ownership. The barns are now part of the Timbers Recreation Area owned by Long Lake Township.



- 1921 Long Lake Association was formed. Property owners at the south end of the lake formed the Evergreen Beach Resort Association, with each owner contributing \$1. This group was later expanded to the Long Lake Association.

- 1923 Cedar Run Ladies Aid Society became the new name of the Alladin Club. They took over the Community Building and renovated it, adding a well. They provided funeral luncheons in addition to the previous activities. Each member paid yearly dues and money was raised with bake sales, raffles and garage sales in addition to donations to help with community projects. MOTTO: “Let us do all the good we can, in



all ways we can, to all the people we can, and as often as we can". The Society met on the third Thursdays of the month.

- 1923 Fire swept through Forest Lodge, destroying several cottages and the common dining room.
- 1928 Judge Parm Gilbert and Emma Gilbert donated the land for Gilbert Park for public use as a park in perpetuity
- 1940 Land that would eventually become Twin Lakes Park was donated to Grand Traverse County
- 1955 Lakeview School built by Geo and Walter Ritola
- 1975 By a vote of 3-2, the Township Board approved the creation of a Land Use Planning Committee, that was thereafter referred to as the Planning Commission. The original 9 members were Maurice Haywood, Orley Norris, Chris Eply, Edward Pokoj, Ruth Webster, Art Amison, Leo Ankersen, Jack Webb, and Bob Hopkins
- 1978 The Township's first Master Land Use Plan was adopted
- 1978 The Planning Commission was reduced to 5 members from 9
- 1978 The Township purchased the land surrounding the township hall for \$53,000. The park became known as Haywood Park when it was dedicated to Maurice E. Haywood in 1983
- 1979 The Michigan DNR constructed the Crescent Shores boat launch. The Township subsequently obtained ownership of the launch. Reconstruction of the launch and adjacent parking lots was completed in 2018 by the Township with a Waterways grant from the Michigan DNR.
- 1979 First Long Lake Township Zoning Ordinance Adopted
- 1991 Subdivision Control Ordinance adopted
- 2000 First Long Lake Township Private Road Ordinance adopted
- 2001 The Township acquired the first portion of land that would become South Long Lake Forest Natural Area. Subsequent acquisitions were added to this Natural Area in 2006 and 2021.
- 1998 Long Lake Township, in cooperation with the Regional Land Conservancy, the Long Lake Association, and the Long Lake Preservation Foundation and the property owners preserved the Bull Head Lake Preserve
- 1999 Long Lake Township adopts the *Long Lake Community Forestry Plan* and developed the *Long Lake Watershed – A Landowner's Handbook*
- 2001 The Township adopted the *Long Lake Township Watershed Plan*, later updated in 2009
- 2006 Development of the *Long Lake Township Natural Features Inventory*
- 2008 Long Lake Township acquires Cedar Run Creek Natural Area

- 2014 With assistance from partners including the Grand Traverse Regional Land Conservancy, the Oleson Foundation (and the Olesen family), and with support of a Michigan Department of Natural Resources Trust Fund grant, the Township obtained the Timbers Recreation Area, now a park open to the public.
- 2017 Long Lake Township celebrates its sesquicentennial
- 2020 With assistance from the MDNR Trust Fund grant, and partners including the Olesen Foundation and the Grand Traverse Regional Land Conservancy, a universally accessible trail and Fern Lake overlook were developed at the Timbers Recreation Area.
- 2022 With support from the community from a voter-approved millage, the Long Lake Township Fire-Rescue Department became full time with 24/7/365 emergency service including advanced life support. A new station was constructed located approximately ½ east of Township hall at 8578 North Long Lake Road.
- 2022 Long Lake Township becomes a Charter Township – now known as the Charter Township of Long Lake.
- 2023 The Township sells the shuttered Ladies Aid Society building. Ownership of Twin Lake Park is transferred from Grand Traverse County to the Township.

SECTION 2. COMMUNITY PROFILE

CHAPTER 2. NATURAL FEATURES AND THE ENVIRONMENT

It is important to begin an assessment of the community with a description of its natural attributes. This chapter presents a description of the topography, soils, water resources and woodlands that form the natural context for the community.

Long Lake Township is situated in northwestern Michigan in Grand Traverse County about 15 miles east of Lake Michigan and about three miles southwest of Grand Traverse Bay. The Township was established by a vote of the Grand Traverse Board of Supervisors in January of 1867. The "signature feature" of Long Lake Township is Long Lake, itself. The lake dominates the central portion of the Township covering approximately 2,900 acres. In addition, several smaller lakes, state forest lands and rolling terrain give the community a unique and highly appealing character. These features provide residents with a desirable rural living environment dominated by outdoor activities year-round but located in reasonable proximity to the urban amenities of Traverse City.

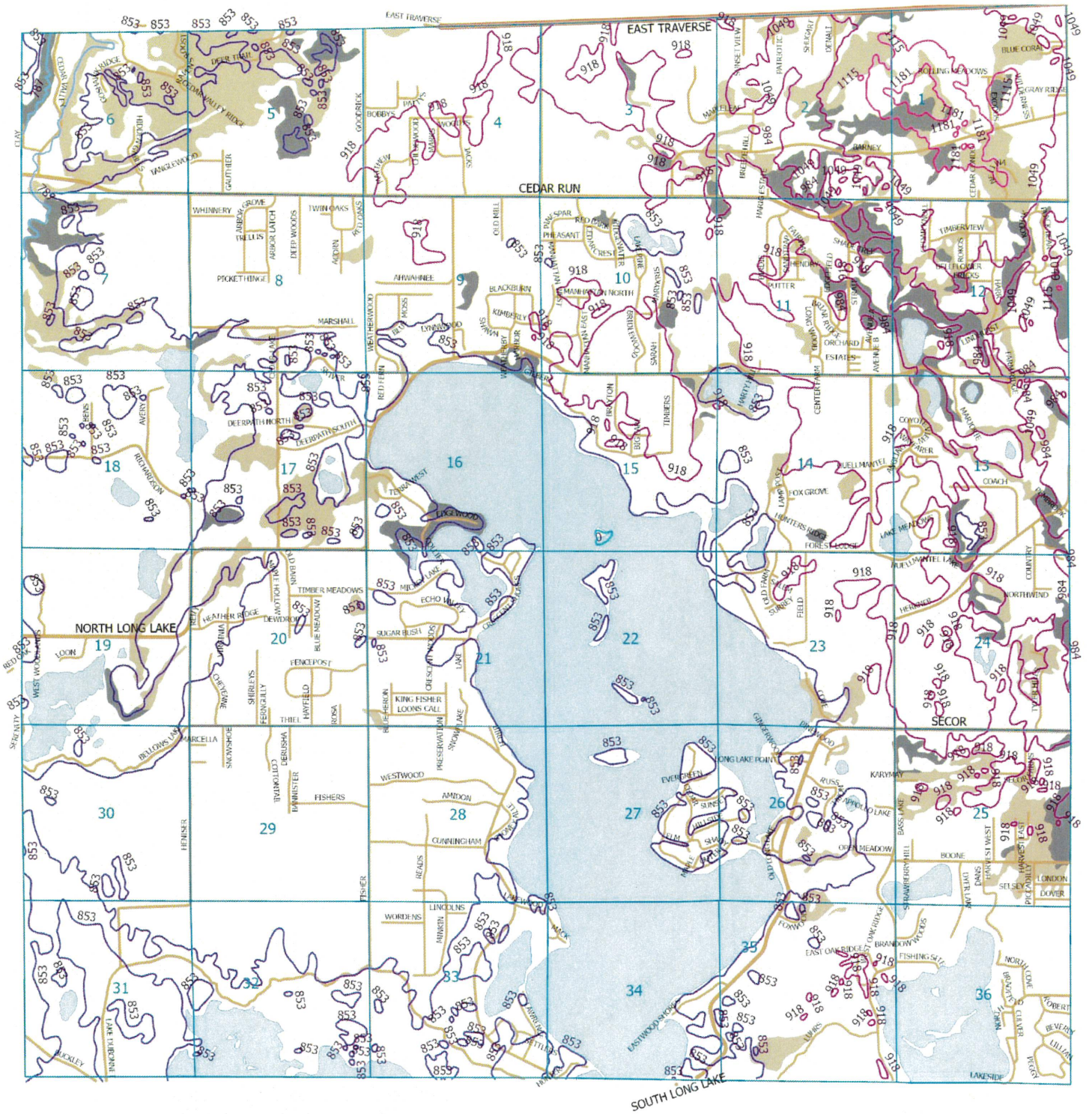
TOPOGRAPHY

The surface features of the Township define its topography. The contour of the land itself in Long Lake Township is a direct result of historical glacial activity. As the glaciers melted and receded to the north, they deposited debris (i.e., soils sediment and rocks) in the form of moraines, lake and outwash plains formed with till deposits. Till was typically deposited in a uniform manner as the glacier receded, while moraines were created when the glacier essentially "dumped" its debris in one particular location. The slopes and drainage of the area have, therefore, been determined by where and how much glacial debris was deposited in particular areas.

The Manistee Moraine, which surrounds Traverse City, extends into the northeast quadrant of Long Lake Township. The balance of the Township's surface geology is characterized by outwash plains and spillways. Land elevations depicted by the U.S. Geological Survey (USGS) for Long Lake Township range from 780 feet to 1,200 feet above sea level (see Map 1 on page 10). The lowest point of surface elevation is found along the channel of Cedar Run Creek in Section 6 while the highest point is found about five miles east in Section 1.

Areas with little topographic relief are predominately found in the southwestern portion of the Township. Very steep slopes (25 to 45 percent) are found to the northwest of Long Lake and along the slopes of the Manistee Moraine.

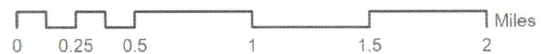
This hilly and rolling terrain is relatively unique in Michigan, and it contributes to the Township's overall visual character and its appeal for homesites within high quality viewshed areas.

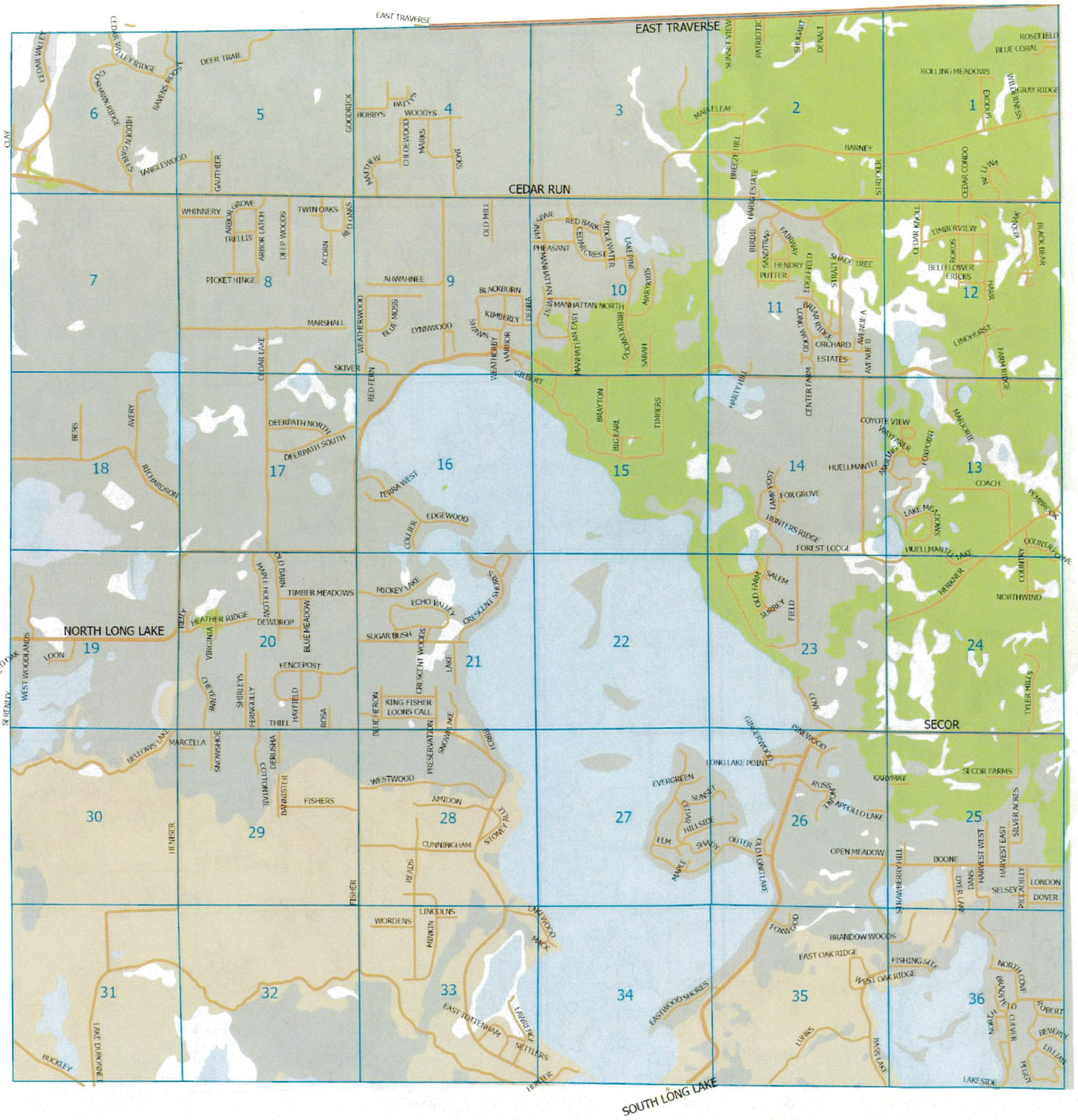


ELEVATION CONTOURS (feet)

- 0
- 1 - 850
- 851 - 915
- 916 - 1050
- 1050 - 1181
- 18% slopes
- 25% slopes

Topography

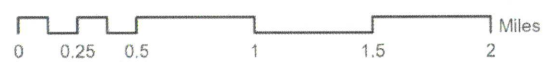




SOILS ASSOCIATIONS

- RUBICON-GRAYLING
- KALKASKA-MANCELONA
- EMMET-LEELANAU

Soils



SOILS

The nature of the soils in a community help to define the limitations on land uses and development. Excessively steep slopes, wet soils or soils with poor bearing capacity can limit development while soils with high nutrient and good drainage characteristics can be an advantage to agriculture and forestry. Adequate drainage is important to minimizing storm water impacts and to ensuring the efficient operation of septic tank drainfields. Adequate depth to ground water is necessary to prevent water contamination from surface activities and drainfield effluent.

In Long Lake Township, the soils are characterized in three broad categories according to the U.S. Department of Agriculture Soil Conservation Service.

The Emmet-Leelanau soil association is found in the northeastern and east central portions of the Township. This soil association consists mainly of gently sloping to steep, well-drained sandy loams and loamy sands located on rolling moraines. This soil association extends eastward into Garfield and East Bay Townships, essentially surrounding the most heavily developed portion of Grand Traverse County. The Rubicon-Grayling association is concentrated in the southwest quadrant of the Township. The soils in this association are level to steep, droughty sands. The soil association is mainly on very sandy pitted plains, but it can also be found in swampy areas. Nearly all the lakes in Grand Traverse County, including Green Lake, Duck Lake and the Forest Lakes area in East Bay Township, occur in this soil association.

The Kalkaska-Mancelona association forms a band that separates the Emmett-Leelanau and Rubicon-Grayling associations. It is found running in a southeast to northwest configuration through the Township. This association is found on rolling to steep uplands and in level to moderately sloping valleys. The soils in this association are typically level to steep, well drained sands and loamy sands. The Kalkaska soil series in Michigan's official State Soil, first described in 1927 and one of the first soil series to be named in Michigan.

LAKES, STREAMS, AND OTHER WATERBODIES

The drainage system in Long Lake Township consists almost entirely of a natural system, which includes lakes, streams, wetlands, swales and gullies. The pattern and rate of surface drainage is affected by soil types and topography. According to the Hydrological Study for the Long Lake Township Drainage Basin (1987), the east edge of Long Lake Township lies along the drainage divide between Lake Michigan and the west arm of Grand Traverse Bay. Approximately 70 percent of Long Lake Township drains into the Long Lake Drainage Basin. Small portions of this basin extend into Solon and Elmwood Townships in Leelanau County and Garfield and Green Lake Township's in Grand Traverse County. Other portions of the Township drain to the west arm of Grand Traverse Bay via Silver and Bass Lakes and to Lake Michigan via Bellows Lake.

The numerous inland lakes in the Township help to define its character. Over sixteen percent (or approximately 3,725 acres) of the Township's surface area, is covered by twenty inland lakes. Table 1 below lists the names and surface area of these significant water bodies.

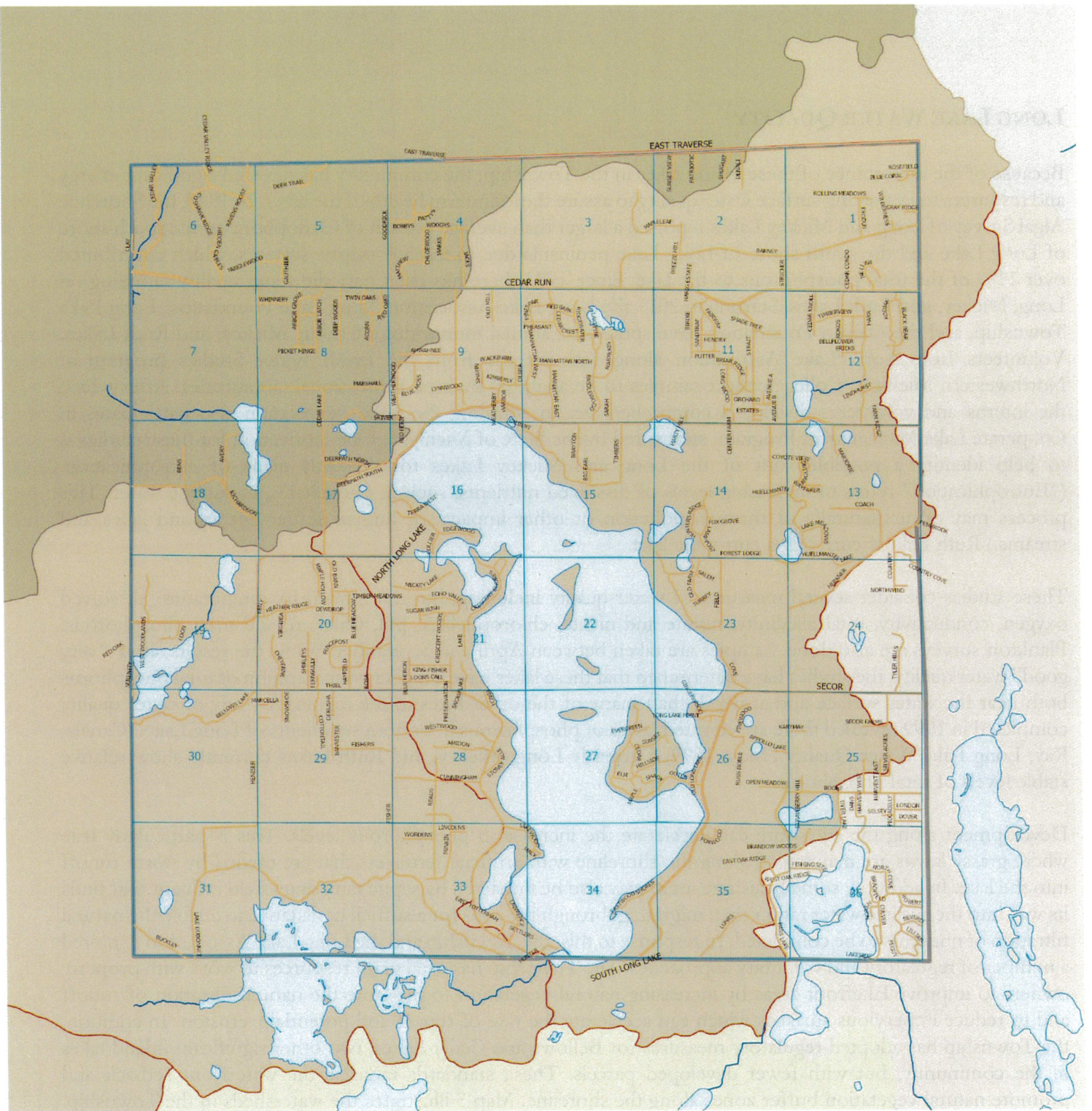
Long Lake accounts for over three-quarters (77.6%) of the Township's surface water features, followed in scale by Bass Lake (6.7%) and Dubonnet Lake (2.8%). While Dubonnet Lake is surrounded by state forest and is largely undeveloped, both Long Lake and Bass Lake are characterized by fairly intense residential development on their shores. Smaller lakes, such as Ruth, Mickey and Dyer, all are similarly developed. Much of this development began as seasonal homes to take advantage of the lakeshore amenity. Over the years, however,

many areas have converted to year-round neighborhoods. The intensity of this development has led to heightening concerns about surface water quality as septic tank drainfield effluent, lawn fertilizers and run-off from impervious surfaces may begin to impact the lakes.

Long Lake township contain few streams. The largest, and perhaps most significant, stream in the Township is Cedar Run Creek, which is located in the northwest corner of the Township. Cedar Run Creek is a cold water stream and is designated by the Michigan Department of Natural Resources as a trout stream. According to the 2006 Long Lake Township Natural Features Inventory, the creek and its riparian corridor is richly diverse, offering several distinct habitat types including sedge meadows, emergent and scrub-shrub wetlands, and a cedar/hemlock swamp. The other streams in the Township primarily serve as connections between lakes or through wetlands and are likely important wildlife corridors.

**Table 2-1
Lakes in Long Lake Township**

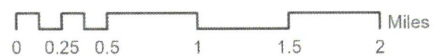
Lake Name	Surface Area (acres)	Lake Name	Surface Area (acres)
Bass Lake	250.3*	Lost Lake	14.0
Bellows Lake	90.3	Lyons Lake	17.9
Bullhead Lake	3.7	Mickey Lake	60.1
Cedar Lake	54.5	Page Lake	10.0
Coffield lake	34.9	Ruth Lake	47.5
Dubonnet Lake	106.2*	Skiver Lake	7.0
Dyer Lake	38.8	Stricker Lake	15.6
Fern Lake	19.6	North Twin Lake	22.2
Huelmantel Lake	18.2	South Twin Lake	16.6
Long Lake	2,889.5*	Wheelock Lake	7.7
* Portion in Long Lake Township			



DRAINAGE BASIN

- Betsie River
- Boardman River
- Lake Michigan Drainage
- Platte River (w/subbasins)
- Lake Leelanau

Watersheds



LONG LAKE WATER QUALITY

Because of the importance of these inland lakes in the Township, the community has devoted significant energy and resources to evaluating surface water quality to assure the long-term health of the lakes. In 1983, the Shoreline Algal Survey of Long and Mickey Lakes reported a larger than average growth of *Cladophora* on the south shore of Long Lake and the south shore of Long Lake peninsula due to leaching septic systems, which contributed over 11% of the total phosphorous to the lake. Since 1993 there has been periodic water quality sampling on Long, Mickey, and Ruth Lakes. Starting in 2017 the Long Lake Association, Long Lake Foundation, Long Lake Township, and the Oleson Foundation have sponsored annual monitoring of Long, Mickey, and Ruth Lakes. Volunteers from Long Lake Association along with interns from the Fresh Water Studies program at Northwestern Michigan College collect samples to be analyzed by local professional laboratories. After which the interns and volunteers develop a comprehensive. In addition, the Lake Association also participates in Cooperate Lake Management Program, sponsored by the State of Michigan. One motivation for these studies is to help identify a possible shift of the Long and Mickey Lakes toward early signs of eutrophication. (“Eutrophication” refers to increasing levels of dissolved nutrients, such as phosphates, in surface water. This process may occur naturally or through pollution or other impacts of human settlement around lakes and streams.) Ruth Lake is currently a eutrophic lake.

These studies consider several measures of water quality including, but not limited to, temperature, dissolved oxygen, conductivity, total alkalinity, nitrate and nitrite, chlorophyll A, pH, Calcium, and total phosphorous. Plankton surveys are also done. Samples are taken between April and September. While the results show “very good” water quality, the studies have determined that these lakes have a higher concentration of total phosphorus both near the water surface and at depth than many of the other lakes in the region. A study of water quality completed in 1999 revealed there are elevated levels of phosphorous in bottom sediments of Long Lake. (Canale, Ray, Long Lake Water Quality Study, 1999) Currently Long, Mickey, and Ruth Lakes currently show relative stable levels of total phosphorus.

Development along the lakeshore can accelerate the increase in phosphorous levels. This is particularly true where grassy lawns are maintained along the shoreline with artificial fertilizers that are carried by storm runoff into the lake. In addition, some lakeshore areas may also be impacted by septic tank drain field effluent that finds its way into the surface water rather than migrating through the soils for a sufficient distance to enable the natural filtration of nutrients to be completed. In response to this, the Township and the Long Lake Association explored a number of regulatory and voluntary approaches. The Township has used grant resources to work with property owners to improve lakefront areas by increasing natural vegetation to promote the natural filtration of runoff and to reduce impervious surfaces which can accelerate the rate of runoff and potentially erosion. In addition, the Township has adopted regulatory measures for Bellows and Cedar Lakes, two other significant inland lakes in the community, but with fewer developed parcels. These standards increase the waterfront setback and promote natural vegetation buffer zones along the shoreline. Map 3 illustrates the watersheds in the Township. The Long Lake watershed is part of the Platte River watershed and incorporates approximately 90% of the Township’s land area. In 2001, the Township, together with Grand Traverse County, the Long Lake Association, the Long Lake Foundation and the Oleson Foundation sponsored a comprehensive nonpoint source pollution project as a part of the Long Lake Watershed Management Plan.

The study reviewed the quality of surface water in the lake and the potential impact on warm water fisheries, aquatic life and wildlife and recreation in and around the lake. The study identified several on-going activities to evaluate and monitor the health of the watershed. Those activities are directly supportive of the policies of this

Comprehensive Plan and the Watershed Management Plan is incorporated by reference as a part of this Comprehensive Plan.

In 2020 a reproducing population of Zebra Mussels was found in the South end of Long Lake. Since then, Zebra mussels have been observed throughout both Long and Mickey Lakes. Zebra mussels have the potential to change the lakes' food web and, as a result the fish population. Eurasian Water Milfoil is also present in the lakes. Yearly treatment appears to have the invasive milfoil under control. Boaters should be strongly encouraged to ensure that no additional invasive species are introduced into the lakes via binge water, bait water, and in ballast systems.

SHORELINE PROTECTION

In 2022, the Township appointed the Shoreline Steering Committee. The group represented a diversity of riparian property owners throughout the township – over 40 residents dedicated countless hours over a six-week period to this effort. The Shoreline Steering Committee was broken down into 5 groups, each tasked with reaching consensus on an assigned topic and ultimately reporting back to the Planning Commission. These topic areas included the following:

- Dredging – Defining Ordinary Highwater Mark
- Naturalized Shoreline/Buffer Zones, Regulatory Framework
- Natural Lakes Zoning Districts
- Grading/Tree Removal
- Wetlands/Sensitive Areas
- Lot Coverage/Bigfoot

Each group crafted language that they recommended to be included in this Plan's Goals and Objectives (Chapter 7). All of the work product of the Shoreline Steering Committee is included in the Appendix to this Plan. Where relevant, the Planning Commission used these recommendations to form the basis of the final Objective statements. Where the Steering Committee's recommended language was very specific (i.e., proposed depth of buffer areas or distances from the shoreline where grading or tree removal may occur), the Planning Commission used generalized language to allow for flexibility in crafting regulations in the future. The full recommendations are memorialized in the Appendix to allow them to serve as a benchmark when the final regulations are written.

Full consensus was not reached by the group discussing the issue of dredging and defining the ordinary high watermark. Their work did form that basis for zoning ordinance changes restricting the alteration of natural shorelines that were adopted in December of 2022.

The overall consensus of the Shoreline Steering Committee was to promote enhanced protections of shorelines and the ecosystems that support the township's surface waters through public education and local regulations. These include shoreline buffer protections, stormwater controls for development of shoreline properties, promotion of native plantings and responsible fertilizing practices, woodland and wetland protections, impervious surface limits and grading regulations where unchecked activities may impact shorelines environments. Additionally, the Steering Committee recommended that the zoning regulations in the Natural Lakefront district be revised to more closely match the Lake Residential district.

WETLANDS

According to the National Wetlands Inventory, a significant area of the lands surrounding Bellows, Lyons, Ruth and Cedar Lakes is characterized as wetlands. In addition, much of the northeast shoreline of Dubonnet Lake and the undeveloped portions of the Bass Lake shoreline are wetlands.

Wetlands are complex ecological systems that provide a number of important benefits. Wetlands reduce flood hazards by providing additional stormwater storage. Wetlands that overlay groundwater recharge areas improve groundwater quality by filtering the water as it percolates through the soil. Wetlands located along a watercourse protect surface water quality by filtering surface run-off. Finally, wetlands are highly productive ecosystems which provide an essential habitat to much of Michigan's fish and wildlife. Map 4 (page 17) illustrates areas in the Township that are characterized by conditions that may indicate wetlands. It should be noted that it is not possible to precisely identify wetlands without field verification on site. Map 4, therefore, must be reviewed with an understanding that it illustrates areas that may have features that could support a wetland determination. However, Map 4 is not to be regarded as an official wetlands map for Long Lake Township. There are over 1,200 acres of wetland in Long Lake Township, approximately 6.5% of the land area. The Township's wetlands tend to typically occur in association with one if its many lakes.

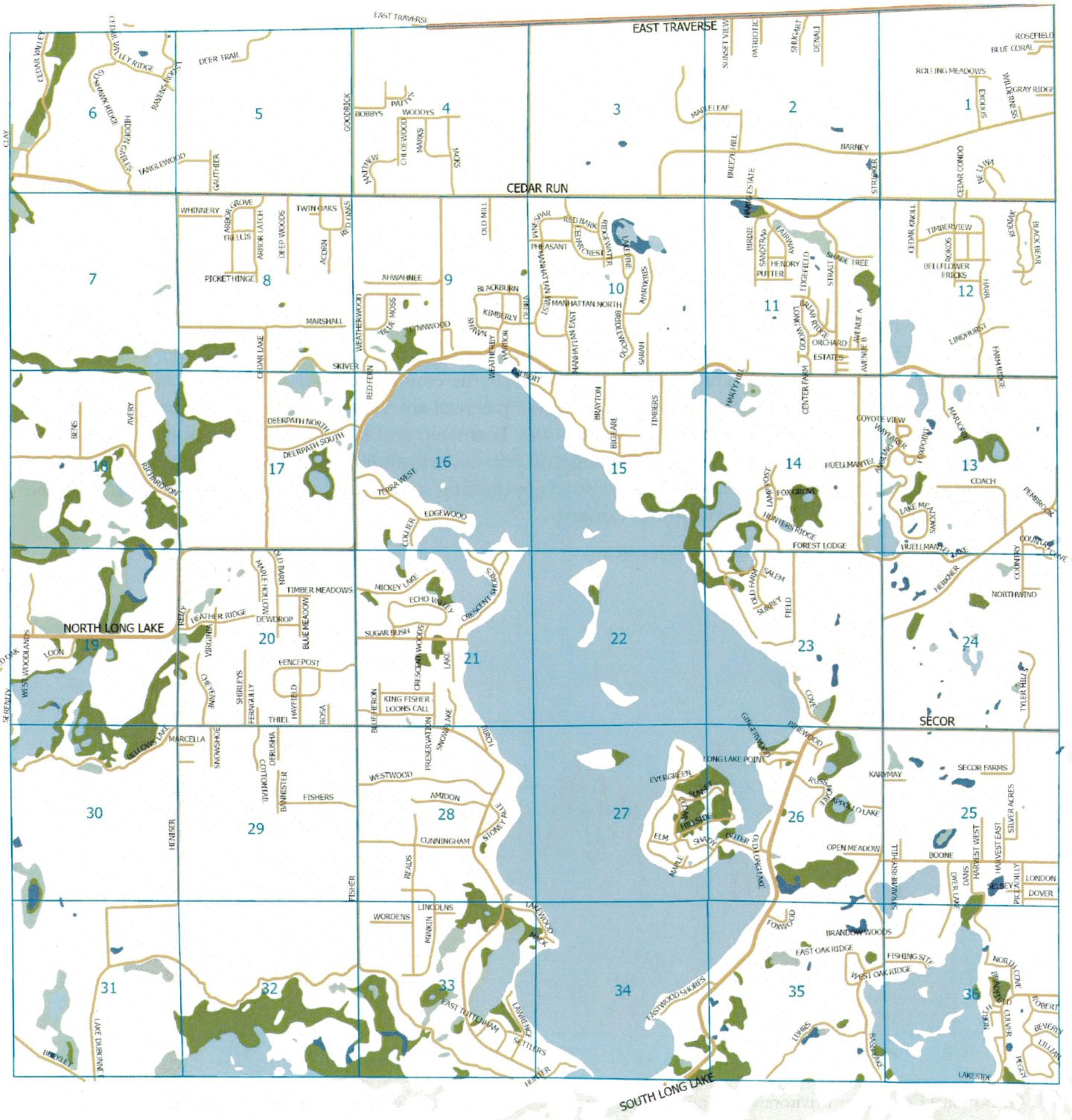
A special feature of the township is the conifer bogs that are found primarily in the southwest corner of the Township. The Michigan Natural Features Inventory classifies these bogs as a special natural plant community.

The Long Lake Township Natural Features Inventory conducted in 2006 recommends that the Township either consider adopting a local wetland and watercourses ordinance that would prohibit development within a lake, stream, or wetland that is not in the best interest of the Township. The 2022 Shoreline Steering Committee recommends that some local control of wetlands should be considered.

DARK SKIES

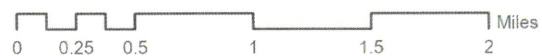
Areas of Long Lake Township benefit from dark night skies. Dark night skies allow for better stargazing of course, but are also known to confer benefits on the health of people and wildlife. Well-crafted regulations controlling light pollution can address glare that can pose dangers to drivers and nuisance to neighbors as well as protect the dark night skies.

The Bortle scale is a nine-level numeric scale that measures the night sky's relative brightness and astronomical visibility to the naked eye. A Bortle score of 2 are the darkest skies found anywhere in Michigan. At this level, the Milky Way can be easily seen during optimal hours and seasons. The closest locations with a level 2 Bortle



- EMERGENT
- FORESTED
- SCRUB-SHRUB
- UNCONSOLIDATED SHORE/BOTTOM

Wetlands

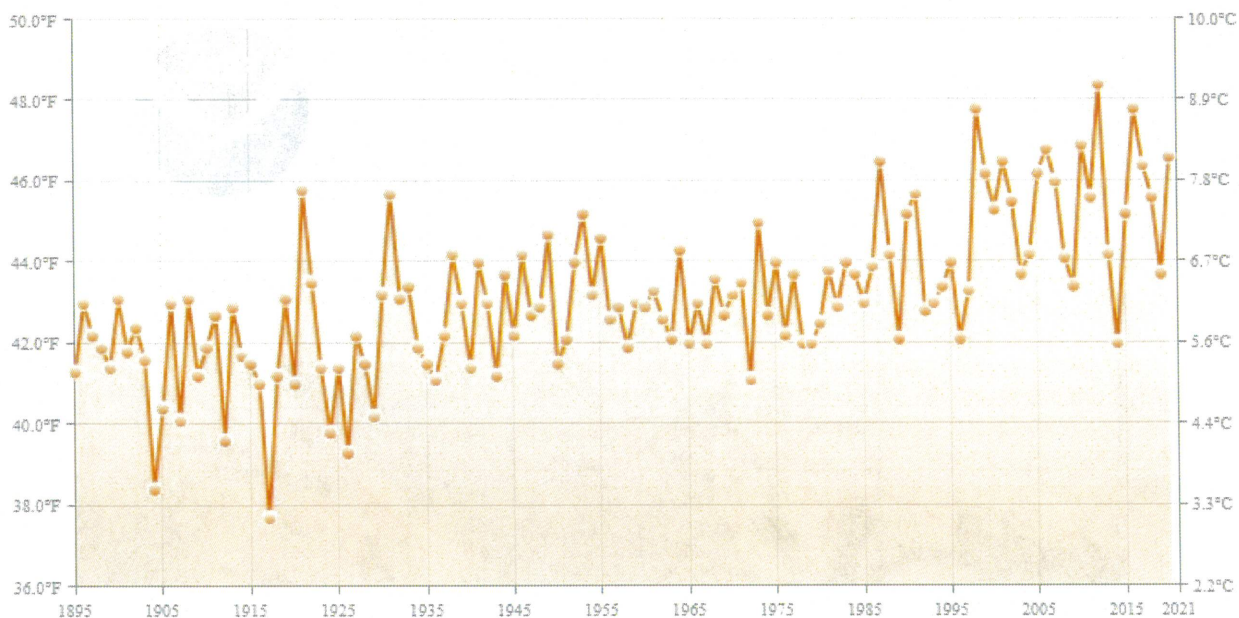


rating include Leelanau State Park in Northport, the Headlands International Dark Sky Park in Emmet County, and parts of the Sleeping Bear Dunes National Park in Leelanau County. The region's highest rating of 6 is found in Traverse City.

CLIMATE

Climatic data is readily available on a county or regional basis, but micro-climatic data typically is not available at the sub-jurisdictional level without special local data gathering. In Grand Traverse County, and by extension Long Lake Township, winter month (December 2020 through February 2021) temperatures range from an average low of 18.7°F to an average high of 31.5°F. In the summer (June through August 2021), average highs are 80.4° F and average low temperatures are 57.4°F. In 2020, the county received 36.69 inches of precipitation, including both rain and snowfall. The Traverse City region received an average of 101.0 inches of snow annually between 1991 and 2020. With the numerous lakes in the Township and its relatively temperate climate, Long Lake residents and visitors can enjoy a broad range of year-round outdoor activities. Not only are fishing, swimming and boating popular, but residents also enjoy golfing and hiking as well as team sports on the recreational facilities of the Township and the County.

Grand Traverse County, Michigan Average Temperature
January–December



NOAA National Centers for Environmental information, Climate at a Glance: County Time Series, published December 2021

The region is experiencing climate change along with most parts of the world. The figure above demonstrates the rising annual average temperatures for Grand Traverse County over the last 126 years. Seven of the County's nine warmest years have occurred since 2000. This has come along with extreme rain events and more severe storms. Long Lake Township's future planning should consider ways to be more climate resilient. Some of these include: enhanced scrutiny of storm water plans for new development and new storm water regulations, preservation of remaining woodlots and wetlands to the extent possible and feasible, discouraging heat islands by limiting impervious surfaces and requiring more tree planting with new development, development of LID (Low Intensity Development) guidelines for new development and encouragement of more pedestrian-oriented development.

WOODLANDS

Like its lakes, Long Lake Township's woodlands form another defining element of the community. At the time of settlement, Long Lake Township, like much of northern Michigan, was forested in a variety of timber, depending on soils conditions. While much of the land was cleared for farming and development, remnants of original forest and second growth forest areas are still evident and more than 8,400 acres of the Township (about 36% of the Township's land area) is covered by undeveloped forestland or wetlands. The Pere Marquette State Forest extends into the western portion of the Township, assuring that a sizeable portion of the existing woodlands will be preserved indefinitely.

These land areas represent important assets of the community. Not only do woodlands provide an important natural feature and aesthetic benefit, they also provide important wildlife habitat, and properly managed, forestlands produce timber resources important to Michigan's lumber and paper industries.

Recognizing the importance of these woodlands to the community, the Township's 1997 Master Plan set forth several goals and policies related to the protection and preservation of forests. In addition, in 1999, the Township prepared a detailed Community Forestry Plan which mapped priority resource areas and developed goals and objectives for the preservation of existing forests and the promotion of new forestation in conjunction with new development.

Among the important goals set forth in the Community Forestry Plan are the following:

- Encourage and support the retention of larger tracts of forestlands in public and private ownership.
- In recognizing the importance of trees in the suburban environment, encourage the retention of existing native trees and the establishment of street trees and shade trees in residential neighborhoods and commercial developments in the Township.
- Preserve, protect and restore primary tree lined corridors in the Township.
- Support the preservation of critical natural areas either identified in this plan or at some future time.
- Encourage the retention, enhancement and restoration of natural forestlands adjacent to lakes, streams and wetlands.
- Encourage the preservation, enhancement and restoration of critical wildlife habitat and important ecological corridors.
- Support continued farming operations and encourage reforestation of lands no longer being farmed.

The first step in meeting some of these goals was to better understand and inventory all of the Township's natural areas, especially the woodlands. In 2006, the Township commissioned the Long Lake Township Natural Features Inventory. Creating the Inventory involved site visits to all of the Township's large lots by the consultant team's foresters and biologists to categorize and rate the woodlots and other natural features present on individual properties. Of the many maps that make up the inventory, the Woodlands Map and the Natural Areas Map are the tools that best assist the Township in protecting these resources. The Township's zoning ordinance does require significant protections of areas with Priority Natural Features as identified in the Natural Features Inventory. The Inventory's recommendations also include that the Township consider adopting a Woodlands Ordinance or Natural Features Overlay District that would designate Protected Woodland Areas potentially requiring replacement of certain trees when removed within the Overlay.

ENDANGERED, THREATENED, AND SPECIAL CONCERN SPECIES.

According to the Michigan Natural Features Inventory, the Wood Turtle is considered a species of State special concern in Grand Traverse County. Habitat for the Wood Turtle is found near moving water and wooded floodplain areas. Since Long Lake Township is characterized by significant areas of wetlands, Wood Turtle habitat may be found in the Township. The population of the Wood Turtle has declined significantly recently, and part of that decline is attributed to habitat loss. Human activities including the construction of streamside homes, roads, timber harvesting, stream channelization, and bank stabilization has resulted in loss of habitat. Like the proverbial canary in the coal mine, the Wood Turtle may be an indicator species of the impact of development on the watersheds in the County.

According to the State of Michigan, other endangered species in Grand Traverse County include the Migrant Loggerhead Shrike, the King Rail, the Red-shouldered Hawk, Common Loon, Bald Eagle, Osprey, and the Lake Huron Tansy (plant). If the population of the County continues to expand, it is possible that plant and animal diversity will also continue to decrease.

GROUND WATER

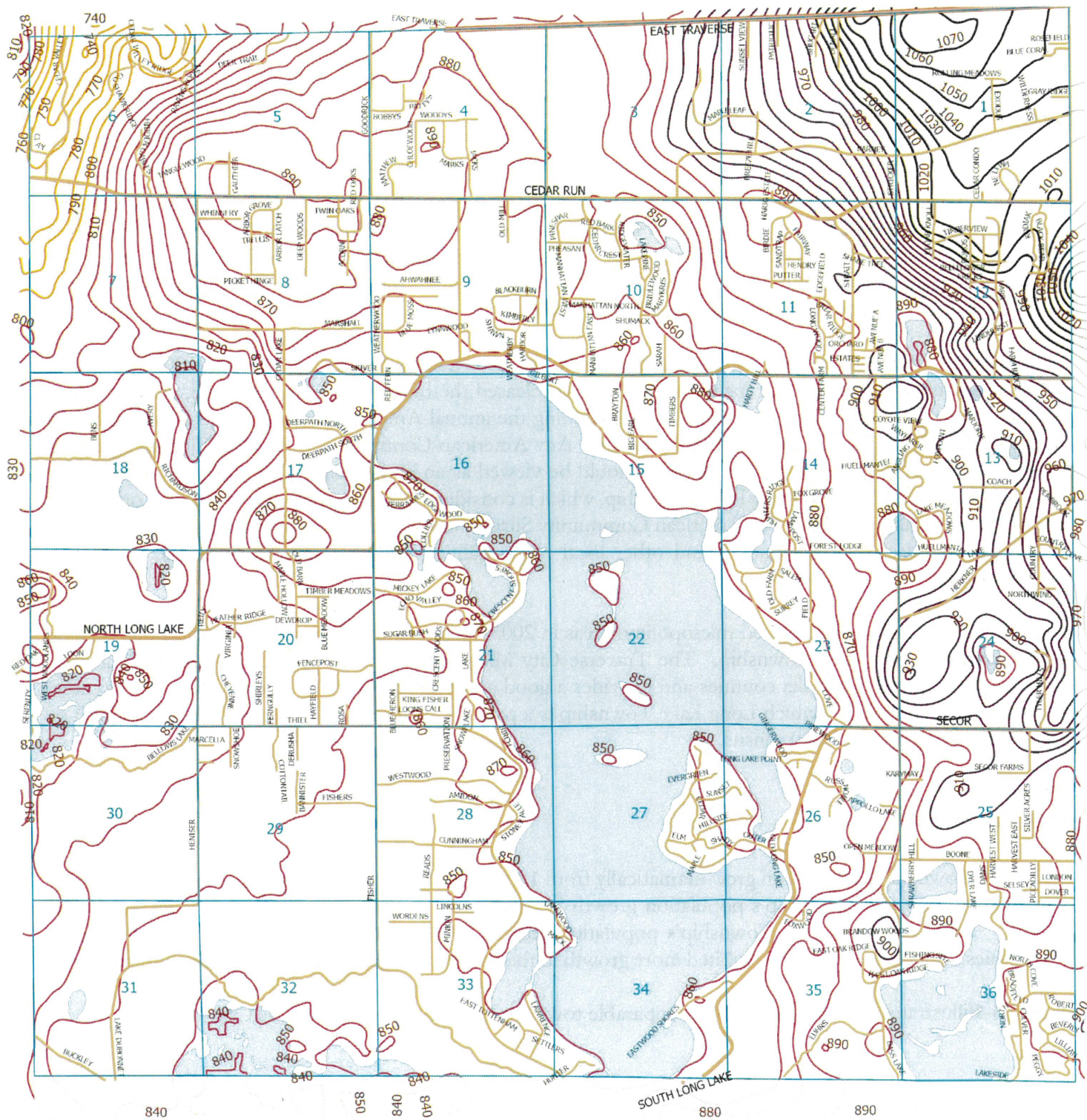
Limited areas of Section 1 of Long Lake Township are served by public water through neighboring Garfield Township. All other domestic and commercial development is served with on-site water wells that draw from aquifer sources. The varied terrain of the Township is mirrored to some extent by the depth to ground water in the community. The highest surface elevation in the community is found in Section 1; and in that location, groundwater aquifers are found at depths in excess of 200 feet. On the other hand, most of the southwestern half of the Township has serviceable groundwater at depths of less than 100 feet and in a limited area around Mickey Lake, groundwater is found at depths of less than 50 feet. The following map illustrates the general depths to groundwater in the Township. It must be noted that the data that this data is based on an algorithm and is generalized.

PLANNING CONSIDERATIONS

The natural features of Long Lake Township that make it attractive as a place to live and play may be threatened by the very development they attract. This observation has become apparent in many communities in northern Michigan, and Grand Traverse County in particular. However, at least in Long Lake Township, the effect of growth and development on natural features has yet to produce irreversible change. More importantly, there is a growing recognition of the potential threat and a need to take special care of the community's resources.

Yet, as outlined in the next chapter, as the population of the community continues to expand, there will likely be serious impacts on natural features. Clearly, it will be incumbent on the Township and its residents to arrive at the appropriate balance to protect the features they love while welcoming development at a sustainable level and in appropriate patterns.

This Chapter forms the basis for several planning considerations that become part of Section III of this Plan. These include enhanced storm water and grading controls, regulatory protections of woodlots and wetlands, shoreline buffer protections, promotion of native plantings and responsible fertilizing practices, low impact design guidelines, impervious surface limits, encouragement of pedestrian-oriented development, and dark skies protections. This Chapter also supports the realignment of regulations in the Natural Lakefront zoning district.



ELEVATION (feet)

- 580 - 680
- 681 - 790
- 791 - 890
- 891 - 990
- 991 - 1130

Elevation of Groundwater



CHAPTER 3. DEMOGRAPHICS

Long Lake Township's population characteristics have changed over the past years and decades. The Township's position in the growing Traverse City area has fueled these changes and will drive further growth in the years to come. Comparing the Township's demographics with those of neighboring municipalities and those for the county, region, state, and country, and breaking down the nature of the Township's population, will help identify needs for Long Lake Township citizens visitors and businesses.

The majority of the statistics in this section come from the U.S. Census Bureau. Though the 2020 decennial census has been completed, the Census Bureau has not released the bulk of the data. As such, census data in this plan comes from a combination of sources, including the annual American Community Survey (with data available up to 2019) and the 2020 decennial census. Any American Community Survey (ACS) data, especially those from toward the end of the last decade, should be viewed as an undercount. We know this because the 2020 census counted 9,956 in Long Lake Township, which is considerably higher than the American Community Survey 2019 estimate of 9,321. The American Community Survey, nonetheless, provides more granular data for smaller geographies, such as counties and other local municipalities, and therefore is a valuable source for comparative data.

The U.S. Census Bureau established micropolitan areas in 2003, including the Traverse City Micropolitan Area, which contains Long Lake Township. The Traverse City Micropolitan Area encompasses Grand Traverse, Leelanau, Benzie, and Kalkaska counties and provides a good approximation of the Traverse City market area, and therefore the region of which Long Lake Township is a part. This four-county region had a population of 153,448, according to the 2020 census.

POPULATION

Long Lake Township's population grew dramatically from 1970 to 1990, nearly quadrupling from 1,584 to 5,977. Since then, Long Lake Township's population growth has continued to outpace the county, region, state, and country. **Table 3-1** details the Township's population growth between 1970 and 2010 and those for larger geographies. The Township also exhibited more growth in the past decade compared with nearby municipalities.

Figure 3-1 illustrates the growth rates of comparable townships and the City of Traverse City.

Table 3-1 Population - 1970 to 2020

	1970	1980	1990	2000	2010	2020
Long Lake Township	1,584	3,823	5,977	7,648	8,662	9,956
10-year rate of change	52.7%	141.4%	56.3%	28.0%	13.3%	14.9%
Grand Traverse County	39,175	54,899	64,273	77,654	86,986	95,238
10-year rate of change	17.0%	40.1%	17.1%	20.8%	12.0%	9.5%
Traverse City Micropolitan Area¹	n/a	n/a	n/a	131,342	143,372	153,448
10-year rate of change	n/a	n/a	n/a	n/a	9.2%	7.0%
State of Michigan	8,875,083	9,262,078	9,295,297	9,938,444	9,883,640	10,077,331
10-year rate of change	13.4%	4.4%	0.4%	6.9%	-0.6%	2.0%
United States	203,211,926	226,545,805	248,709,873	281,421,906	308,745,538	331,449,281
10-year rate of change	12.5%	11.5%	9.8%	13.2%	9.7%	7.4%

¹ The Traverse City Micropolitan Area, established in 2003, includes Grand Traverse, Leelanau, Benzie, and Kalkaska Counties
 Source: U.S. Census Bureau - decennial censuses

Figure 3-1 Comparative Rates of Growth

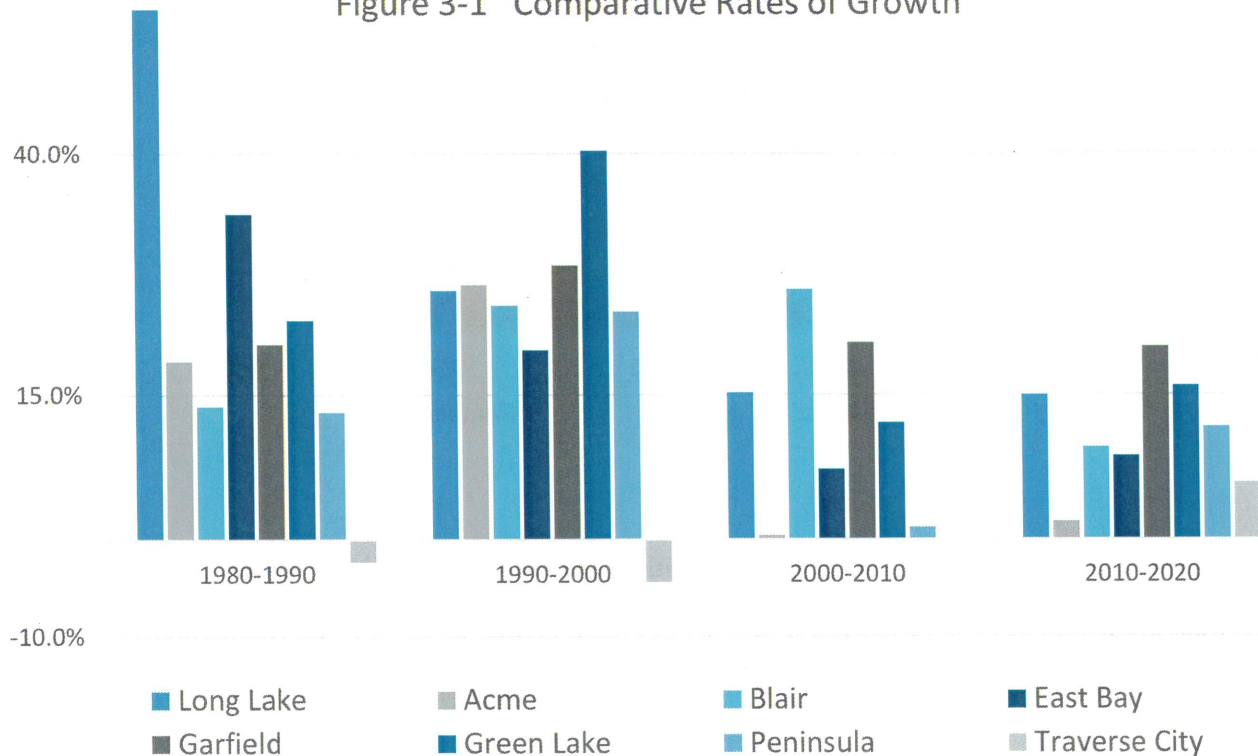
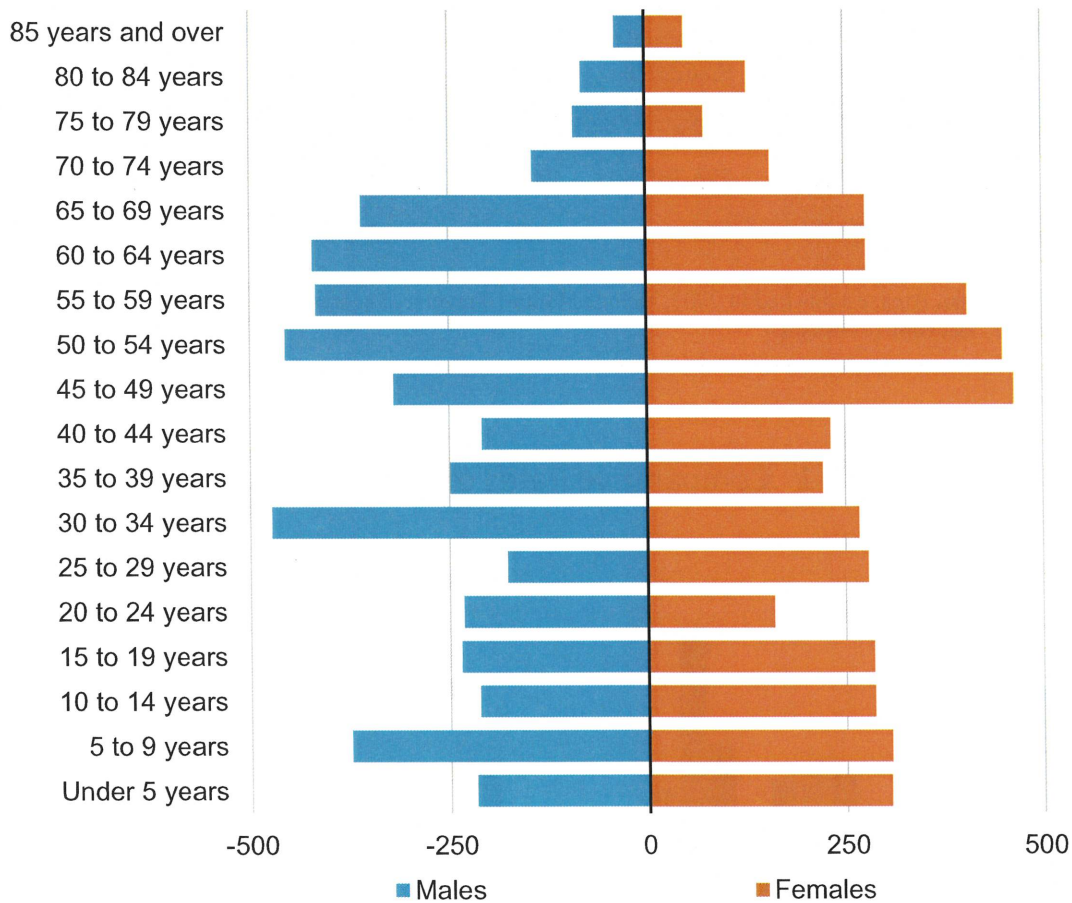


Figure 3-2 is a population pyramid illustrating Long Lake Township’s population by age and sex. As defined in the 2019 American Community Survey, the Township's population is well represented by the tail end of the Baby Boomer Generation and Generation X. Baby Boomers were born 1946 to 1964. In contrast, Gen Xers were born from 1965 through 1980. These cohorts are nearing or recently retired and are likely still active such that they desire leisure amenities, including restaurants, cultural, and natural facilities. In addition, the pyramid shows a couple of other noteworthy population segments. For example, there is a surplus of males in the 5-9 and 30-34 age groups.

Figure 3-2 - Long Lake Township Population Pyramid



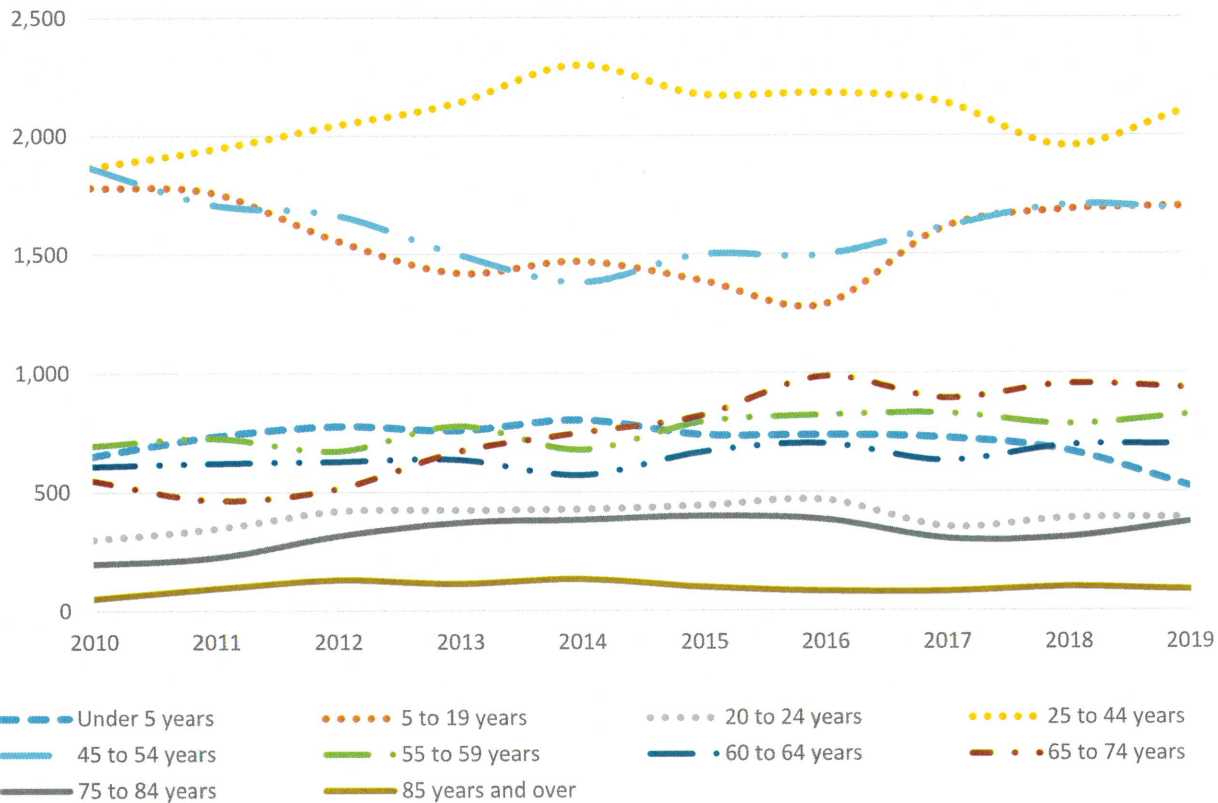
Historical age cohort data shows a shifting population within Long Lake Township. **Table 3-2** displays this change over three decades, from 1990 to 2019 - the latest year for which such data is available. The table shows that while in 1990 the family formation age group dominated, now empty nesters are the largest group. A more granular look at age cohorts from 2010 to 2019 can be found in **Figure 3-3**.

Table 3-2 1990 to 2019 Comparative Age and Life Cycle Distribution

Age-Life Cycle	1990		2000		2010		2019	
	Number	%	Number	%	Number	%	Number	%
Under 5 – Preschool	536	9.0%	518	6.8%	651	7.6%	523	5.6%
5 to 19 – School Age	1,599	26.8%	1,957	25.6%	1,782	20.8%	1,700	18.2%
20 to 44 – Family Formation	2,628	44.0%	2,789	36.5%	2,167	25.3%	2,496	26.8%
45 to 64 – Empty Nest	835	14.0%	1,730	22.6%	3,169	37.0%	3,208	34.4%
65 to 74 – Seniors	249	4.2%	415	5.4%	548	6.4%	935	10.0%
Over 75 – Elderly	130	2.2%	239	3.1%	248	2.9%	459	4.9%

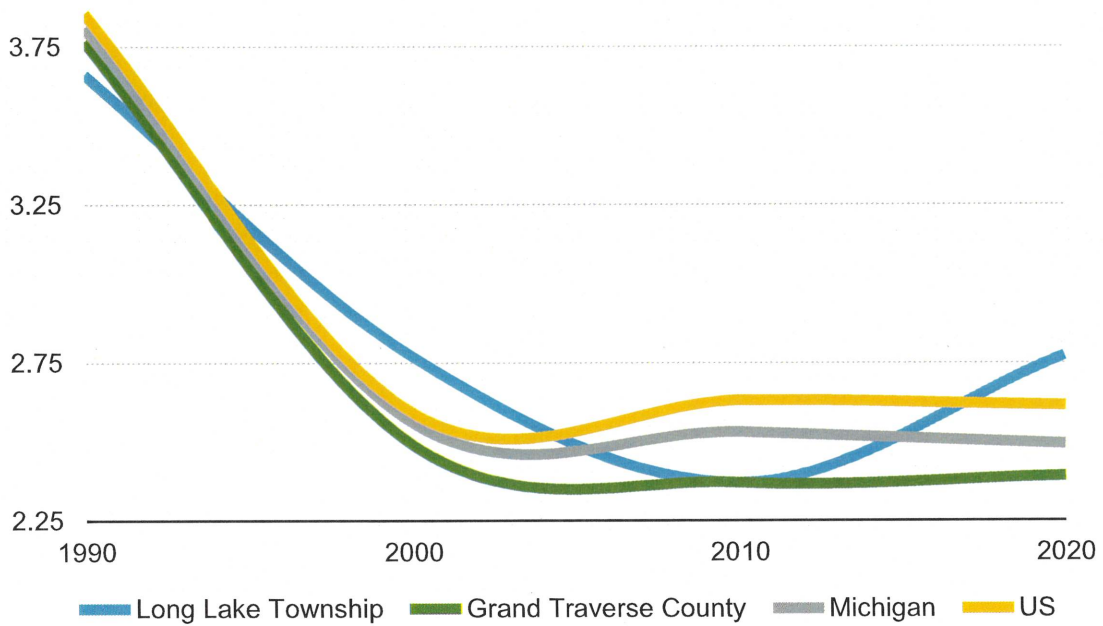
Source: American Community Survey, Mission North, LLC

Figure 3-3 Age Cohorts 2010 - 2019



Following the decrease in families in the Township is the decrease of household size. In 1990, the average household had 3.66 persons. By 2010, that number had dropped to 2.37, and by 2020 had rebounded slightly to 2.77. Household size for the county, state, and country, by contrast, stayed somewhat flat in the past decade hovering around 2.5. **Figure 3-4** displays comparative household size data for various geographies.

Figure 3-4 Trends in Household Size



POPULATION PROJECTIONS

Population for Long Lake Township is projected to continue increasing at a rate of 1.5% in 2021 and remain above 1% each year through 2026. These population projections use historical fertility by age group to project future births and historical mortality to project deaths by age group. Historical net migration for Grand Traverse County was used to project immigration and emigration but was adjusted based on recent patterns of strong inflows of new residents to the Traverse City area.

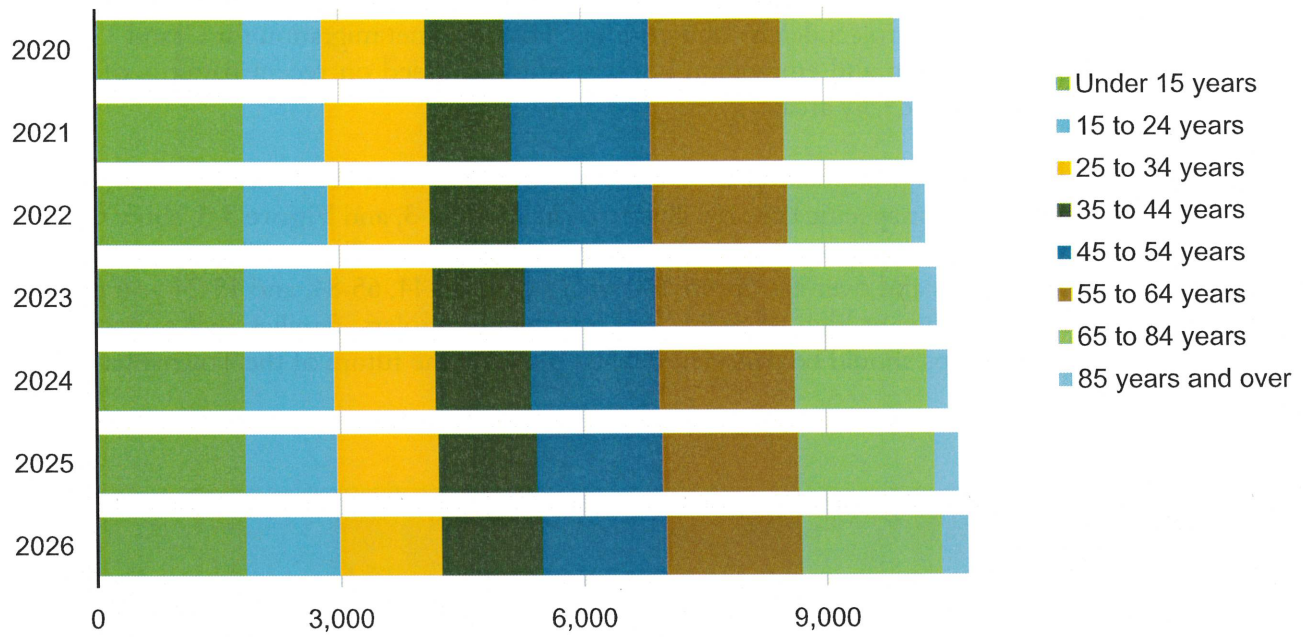
Based on these estimates, the Township population would increase by 7.9% from 2020 through 2026, adding over 800 new residents. Projections for specific cohorts, illustrated in **Table 3-3**, and **Figure 3-5**, show that the 25-34 year and 45-54 year age groups are expected to decline, whereas the others will rise. The most significant rise by percentage will be the 85 years and over age group, followed by the 35-44, 65-84, and 15-24 year groups. The fast-rising cohorts can be described as high schoolers and post-high-schoolers, families, and seniors. The needs of these three expanding groups should be considered when planning the future of the Township.

Table 3-3 Population Projections by Cohort

	2020	2021	2022	2023	2024	2025	2026	Change
Under 15 years	1,819	1,817	1,816	1,817	1,820	1,823	1,828	0.5%
15 to 24 years	973	1,013	1,049	1,081	1,110	1,136	1,160	19.2%
25 to 34 years	1,276	1,261	1,251	1,245	1,243	1,245	1,248	-2.2%
35 to 44 years	972	1,031	1,082	1,127	1,166	1,202	1,234	27.0%
45 to 54 years	1,803	1,734	1,678	1,633	1,597	1,569	1,547	-14.2%
55 to 64 years	1,624	1,649	1,664	1,673	1,675	1,674	1,671	2.9%
65 to 84 years	1,396	1,458	1,518	1,574	1,625	1,673	1,716	22.9%
85 years and over	93	143	189	232	271	307	340	266.3%
Total	9,956	10,105	10,247	10,380	10,507	10,629	10,744	7.9%
Change		1.5%	1.4%	1.3%	1.2%	1.2%	1.1%	

Source: Mission North, LLC estimates using historical birth data from the American Community Survey for Grand Traverse County, Michigan mortality rates from the Center for Disease Control, and pro-rated Grand Traverse County net migration figures from the U.S. Census via the Mackinac Center for Public Policy. Migration has been adjusted to account for recent migration strength in the Traverse City region.

Title 3 - 5 Population Projections by Cohort



CHAPTER 4: HOUSING, INCOME AND ECONOMIC DEVELOPMENT

Long Lake Township sits in the prosperous Traverse City region. Though many think of Traverse City and its environs as a small town, it is the hub of a vast region of Northern Lower Michigan with great economic activity. In fact, the Traverse City Micropolitan Area had a gross domestic product (GDP) in 2017 of over \$11.174 billion. To put this into perspective of productivity, if the TCMA were a country, it would have the 11th highest GDP per capita in the world.

Housing, income, and economic development metrics can help understand the nature of Long Lake Township citizens, workers, and businesses and better interpret this dynamic economy. This chapter provides a look at some of these metrics to provide greater context for decisions regarding land use and other planning strategies.

PROPERTY VALUE GROWTH

Equalized value and its growth is a good measure of the economic health of a community. Equalized values reflect real estate market and equipment investment, which are, of course, a bellwether of the overall economy. In the 2005 Comprehensive Plan, total equalized value for Long Lake Township was compared with other area townships and the county. At that point, all compared municipalities were experiencing double-digit annual growth. Over 15 years later, as the communities and the county as a whole matures, the same communities are now generally seeing high single-digit year-to-year growth.

Grand Traverse County's annual equalized value growth from 2017 through 2021 has been 4% to a little over 8%. Long Lake Township has exceeded that growth in all but one year with 5% to 7% growth those five years. **Table 4-1** details these comparisons. It is expected that these values will spike in one to three years as assessments catch up with the dramatic increase in market values just preceding and coinciding with the COVID-19 pandemic.

Table 4-1 Total Equalized Values and Rates of Change

	2017	2018	2019	2020	2021
Acme Township	\$405,047,600	\$410,212,800	\$446,292,400	\$488,176,200	\$506,146,900
Rate of change	2.45%	1.28%	8.80%	9.38%	3.68%
Blair Township	\$323,377,950	\$339,784,300	\$372,424,822	\$401,110,431	\$434,214,000
Rate of change	5.62%	5.07%	9.61%	7.70%	8.25%
East Bay Township	\$661,622,400	\$693,918,400	\$749,360,200	\$791,283,800	\$843,341,300
Rate of change	4.53%	4.88%	7.99%	5.59%	6.58%
Garfield Township	\$1,022,599,100	\$1,061,119,400	\$1,166,514,900	\$1,246,935,200	\$1,298,241,400
Rate of change	3.99%	3.77%	9.93%	6.89%	4.11%
Green Lake Township	\$332,663,100	\$343,142,700	\$368,367,800	\$393,615,200	\$426,213,800
Rate of change	6.66%	3.15%	7.35%	6.85%	8.28%
Long Lake Township	\$596,824,500	\$627,336,200	\$667,581,500	\$710,929,400	\$759,922,900
Rate of change	6.43%	5.11%	6.42%	6.49%	6.89%
Peninsula Township	\$894,743,800	\$923,545,600	\$985,987,200	\$1,073,856,000	\$1,140,287,700
Rate of change	4.63%	3.22%	6.76%	8.91%	6.19%
City of Traverse City	\$1,186,260,675	\$1,249,892,256	\$1,352,003,383	\$1,471,829,774	\$1,580,684,143
Rate of change	8.39%	5.36%	8.17%	8.86%	7.40%
Grand Traverse County	\$6,077,177,576	\$6,324,678,828	\$6,838,320,468	\$7,354,713,405	\$7,792,680,943
Rate of change	5.48%	4.07%	8.12%	7.55%	5.95%

Source: Grand Traverse County Equalization

The makeup of Long Lake Township’s equalized value reflects the Township’s emphasis on residential land uses. About 97% of the Township’s value is in residential property. Only 2% is commercial, 1% agricultural, and a mere .1% industrial. **Figure 4-1** illustrates the four property categories and their proportions.

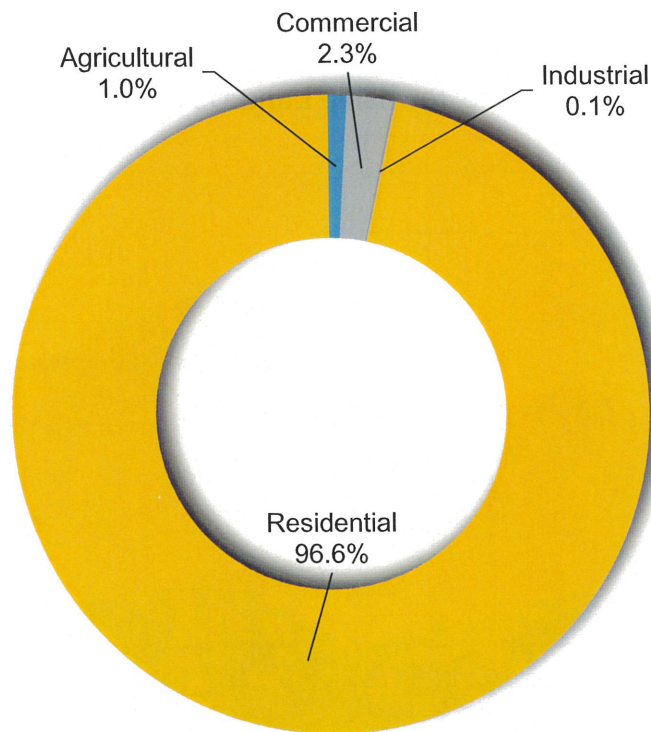
The Township’s housing stock is much more owner-occupied than larger comparative geographies. According to the 2019 American Community Survey, nearly 90% of Long Lake Township’s housing stock is owner-occupied. As **Table 4-2** shows, this is the largest percentage of all the comparative geographies. The lack of rental choices is why high school and college graduates from the Township tend to move away. Conversely, the quiet owner-dominated residential neighborhoods prove attractive to families and seniors.

Table 4-2 Housing Tenure

	Owner-Occupied	Renter-Occupied
Long Lake Township	89.7%	10.3%
Grand Traverse County	76.3%	23.7%
Traverse City Micropolitan Area	80.4%	19.6%
Michigan	71.2%	28.8%
US	64.0%	36.0%

Source: 2019 American Community Survey

Figure 4-1 Breakdown of Property Values by Class

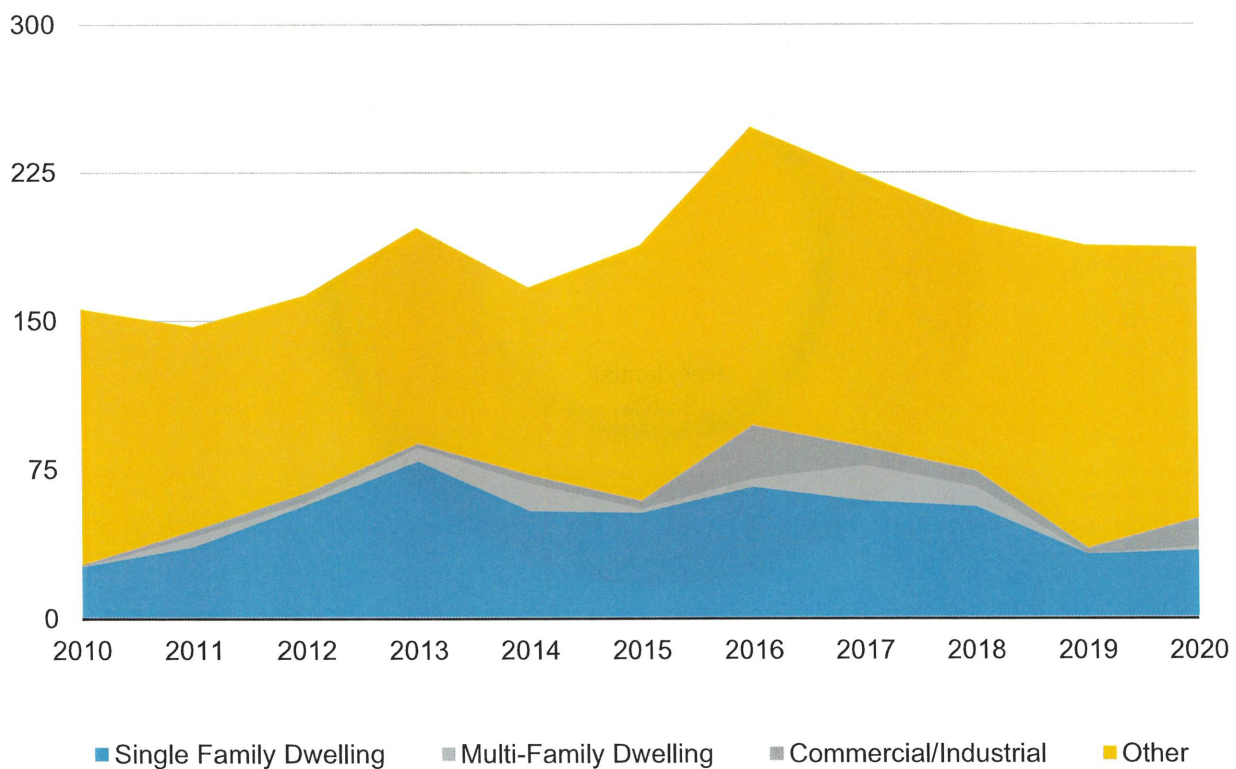


LAND USE PERMITS

The pace and type of land use permits provide insight into economic activity and the supply of future housing. The previous master plan showed that residential permits issued from 1995 through 2002 totaled around 50 annually at the beginning of that period but increased to nearly 110 per year by 2002. Single-family residential permits have averaged 50 annually for the past decade, with peaks in 2013 and 2016. These peaks were likely due to pent-up demand following the Great Recession of the late '00s. Figure 4-2 shows permits by category from 2010 through 2020. The permit chart shows permit activity for multi-family projects mainly in the middle of the decade. In total, 64 multi-family units were permitted during the decade. Commercial and industrial make up a smaller portion of permits. The bulk of permit activity is for “other” building projects, including home additions, garages, renovations, decks, and porches.

According to the Township Planning Department, around 71 single-family lots are available in approved projects, not counting lots created by land divisions. There are another 80 lots approved coming online in the next 4-5 years. In addition, there are another 72 multi-family units approved at the Edge 72 project that will be built over the next 4-5 years. Beyond approved housing, there are two more projects in the planning stage, with approximately 147 single-family homes planned. Using the current median household size of 2.53, all these available built, approved, and planned developments translate into housing for another 956 residents.

Figure 4-2 Long Lake Township Land Use Permits 2010 - 2020



HOUSING COSTS

Housing costs are rising at an alarming rate in the Traverse City region. High housing costs impacts the ability for entry-level workers, service workers, municipal employees, and even some dual-income households to afford to stay in the region. This is not a Long Lake Township problem per se, as there are already less costly housing options in the region. But continued upward pressure on housing costs will further limit who can live in the Township.

Data from the 2019 American Community Survey, detailed in **Table 4-2**, shows housing costs for Long Lake Township higher than those for the county, region, and state. Only the U.S. has higher mortgage and rent costs. These data are the latest available from the U.S. Census Bureau, but more current data sources better shows how values have risen recently.

Table 4-2 2019 Home Values and Housing Costs			
2019 ACS 5-Year Estimate	Median Home Value	Median Monthly Mortgage Payment	Median Monthly Rent
Long Lake Township	\$227,000	\$1,381	\$925
Grand Traverse County	\$212,500	\$1,330	\$951
Traverse City Micropolitan Area	\$203,100	\$1,266	\$908
Michigan	\$154,900	\$1,298	\$871
U.S.	\$217,500	\$1,595	\$1,062

Source: 2019 American Community Survey

In the past two to three years, home values have soared as strong migration into the Traverse City market has driven up prices and rents. Zillow’s Home Value Index provides a more current assessment of home values in the Traverse City zip codes, county, state, and country. These are shown in **Table 4-3**. Note that Zillow has values well above the ACS 2019 figures for all geographies. For example, the Grand Traverse County September 2021 Zillow value is 57% higher than the 2019 ACS value.

Township records of home sales within the Township support Zillow’s figures. In 2021 through November, the median home sale price was \$349,125, a 32.1% increase over the 2019 sales median. Table 4-4 summarizes sales metrics in Long Lake Township for the past three years.

Table 4-3 Zillow Home Value Index

9/30/2021 Zillow Home Value Index	
Traverse City Zip Code	\$354,000
Grand Traverse County	\$334,000
Michigan	\$215,000
U.S.	\$308,000

Note: Zillow estimates that U.S. Home prices will rise 13.6% in the next year.

Table 4-4 Long Lake Home Sales

	2019	2020	2021
Average	\$327,324	\$354,244	\$451,658
<i>Annual rate of change</i>	n/a	8.2%	27.5%
Median	\$264,250	\$306,000	\$349,125
<i>Annual rate of change</i>	n/a	15.8%	14.1%

Note: 2021 data through November 30

Source: Long Lake Township Assessing Department, Mission North, LLC

EMPLOYMENT AND PAYROLL

Employment and payroll are important measures of a community’s economy. The 2019 American Community Survey shows Long Lake Township residents with an enviable 4.6% unemployment rate in that year. Generally, 4% is considered ideal as anything less reflects a scarcity in workers which can drive up wages and ultimately inflation. Comparatively, Michigan’s 2019 ACS unemployment rate was 5.9% and the country’s 5.3%. More current data is available for the state and country showing the rate in September 2021 at 4.6% and 4.8%, respectively.

Employment and payroll trends show the county and the region in a growth mode. **Figures 4-3 and 4-4** show this graphically. Payroll is rising faster than jobs meaning wages are rising. For example, in 2012, the average worker pay in Grand Traverse County was \$37,797, whereas, in 2019, it had increased to \$45,162. The Traverse City Micropolitan Area’s average wages have seen a similar rise growing from \$37,335 to \$45,024 in the same period.

Occupations of Township residents are very much in line with the nation. 39.1% of working Township residents work in *management, business, science, and arts*. This is very close to the nation’s percentage of 38.5% for the same category. Township workers in the production, transportation, and material moving occupations category make up 13.9% of the total, slightly more than the U.S.’s 13.2%. Long Lake Township has slightly more workers in the natural resources, construction, and maintenance occupations category than the U.S. 10.2% of Township residents work in that category versus only 8.9% for the country. The Township has a lower percentage of workers in service occupations, 14.9%, than the country’s 17.8%. The occupational makeup of Long Lake Township residents is more reflective of the country than Michigan residents, who are heavier on production, transportation, et al. and lighter on management, business, science, and arts.

Figure 4-3 - Employment and Payroll,
Grand Traverse County

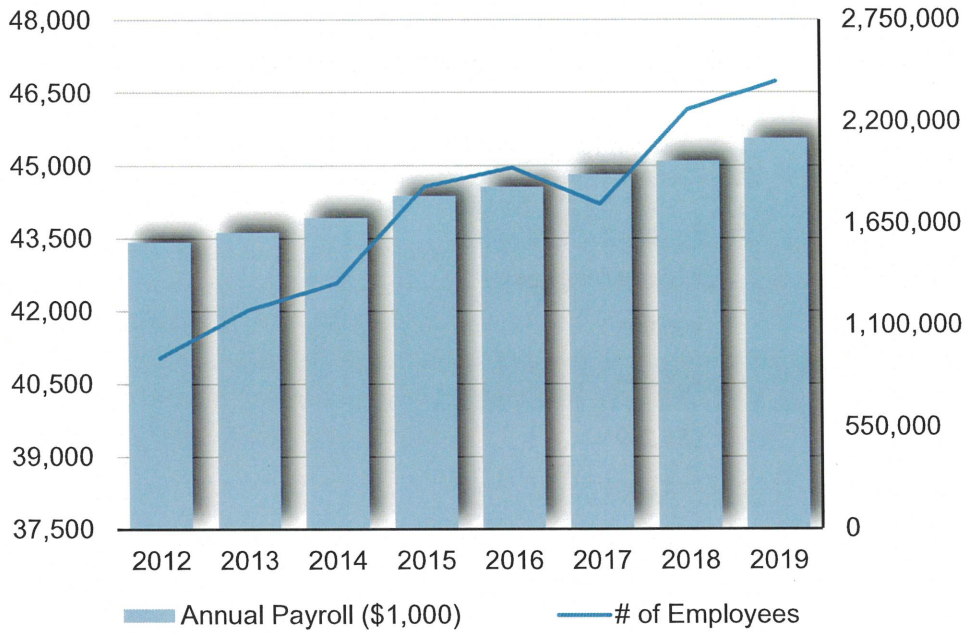
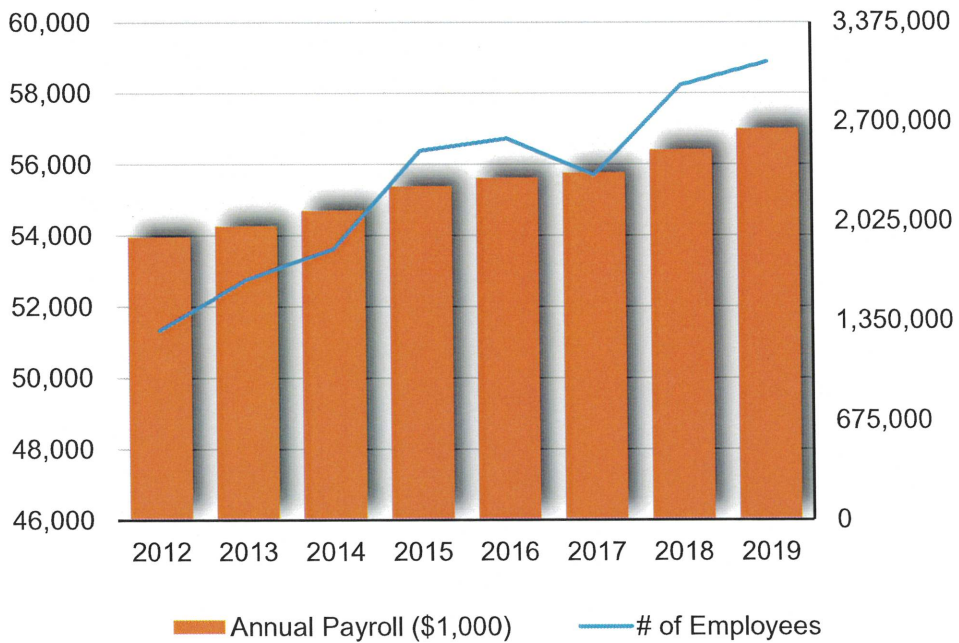


Figure 4-4 Employment and Payroll, Traverse City
Micropolitan Area



INCOME

Long Lake Township's lakefront living has helped attract higher-earning residents. Table 4-3 shows how the Township's median and average household income exceed those of other comparable geographies. Long Lake has the third-highest median income of the 16 municipalities in Grand Traverse County, behind Peninsula and Acme townships. Understandably, Long Lake Township has fewer households on the lower end of the earnings spectrum. Only 6.7% of the Township's households have a median income of under \$35,000.

Table 4-3 Household Income

	Median	Mean (Average)
Long Lake Township	\$75,605	\$90,993
Grand Traverse County	\$63,575	\$85,405
Traverse City Micropolitan Area	\$61,019	\$81,259
Michigan	\$57,144	\$78,400
United States	\$62,843	\$88,607

Source: 2019 American Community Survey

EDUCATIONAL ATTAINMENT

Long Lake Township’s citizens have a higher level of education than the national average. Over 98% of the Township’s residents have a high school diploma or higher. This rate is 10% more than the U.S. and above the State, region, and County. In addition, 37.4% of Long Lake Township residents have a bachelor’s degree or higher. This too is considerably higher than the nation’s percentage, which is 32.1%. **Table 4-4** displays this data.

The Township’s population has become more educated during the past decade. The figures for completing high school and for earning a bachelor’s degree were notably lower in 2010. In that year, the proportion of Township residents 25 years and older with a high school diploma or higher was 94.8%. Those with a bachelor’s degree include only 26.1%.

Table 4-4 Educational Attainment for 25-Years and Older		
	High School Diploma or higher	Bachelor’s Degree or higher
Long Lake Township	98.3%	37.4%
Grand Traverse County	95.2%	39.0%
Traverse City Micropolitan Area	94.1%	33.9%
Michigan	90.8%	29.1%
U.S.	88.0%	32.1%

Source: American Community Survey 5-year estimates

CHAPTER 5. LAND USE AND DEVELOPMENT PATTERNS

LAND USES

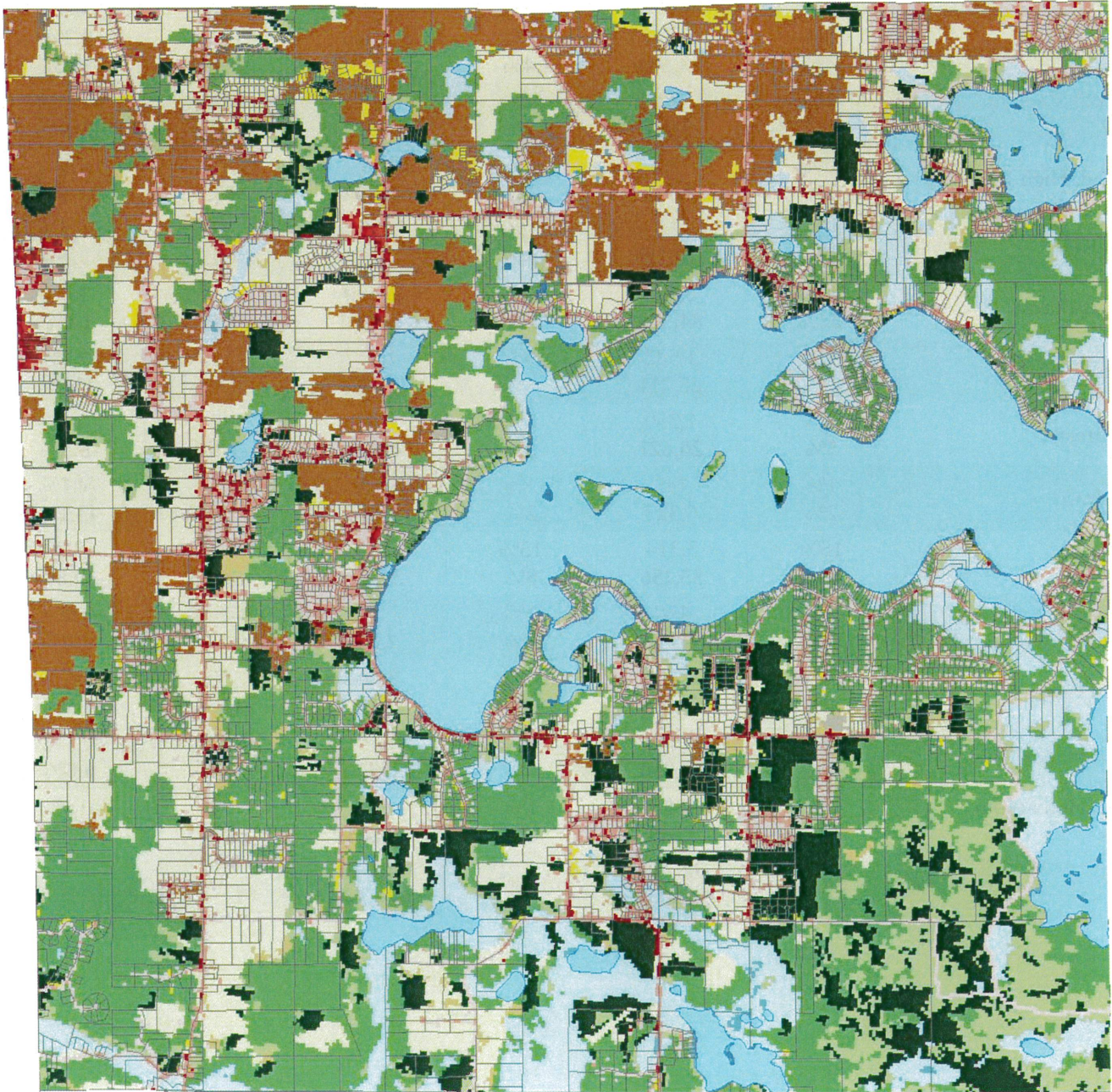
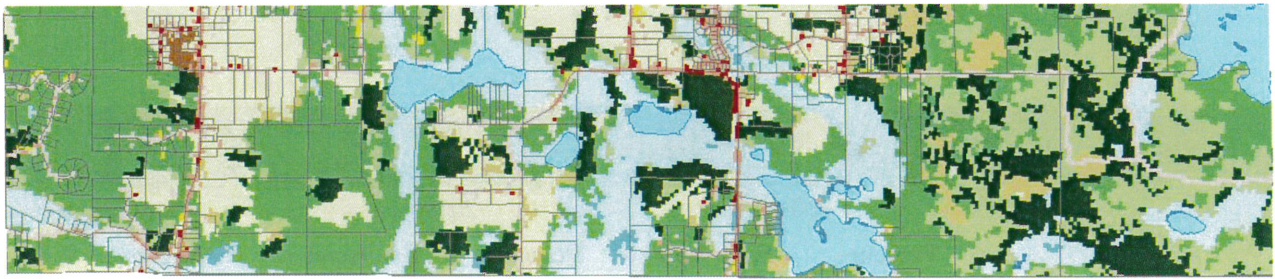
There are approximately 22,748 acres in Long Lake Township. Table 5-1 on the following page breaks the existing land coverage into sixteen categories. This data presents the mapped information from 2001 and 2019 which is illustrated in Maps 6 and 7. Net changes by category over this timeframe are shown in the table for both the Township and the County.

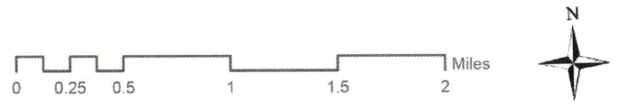
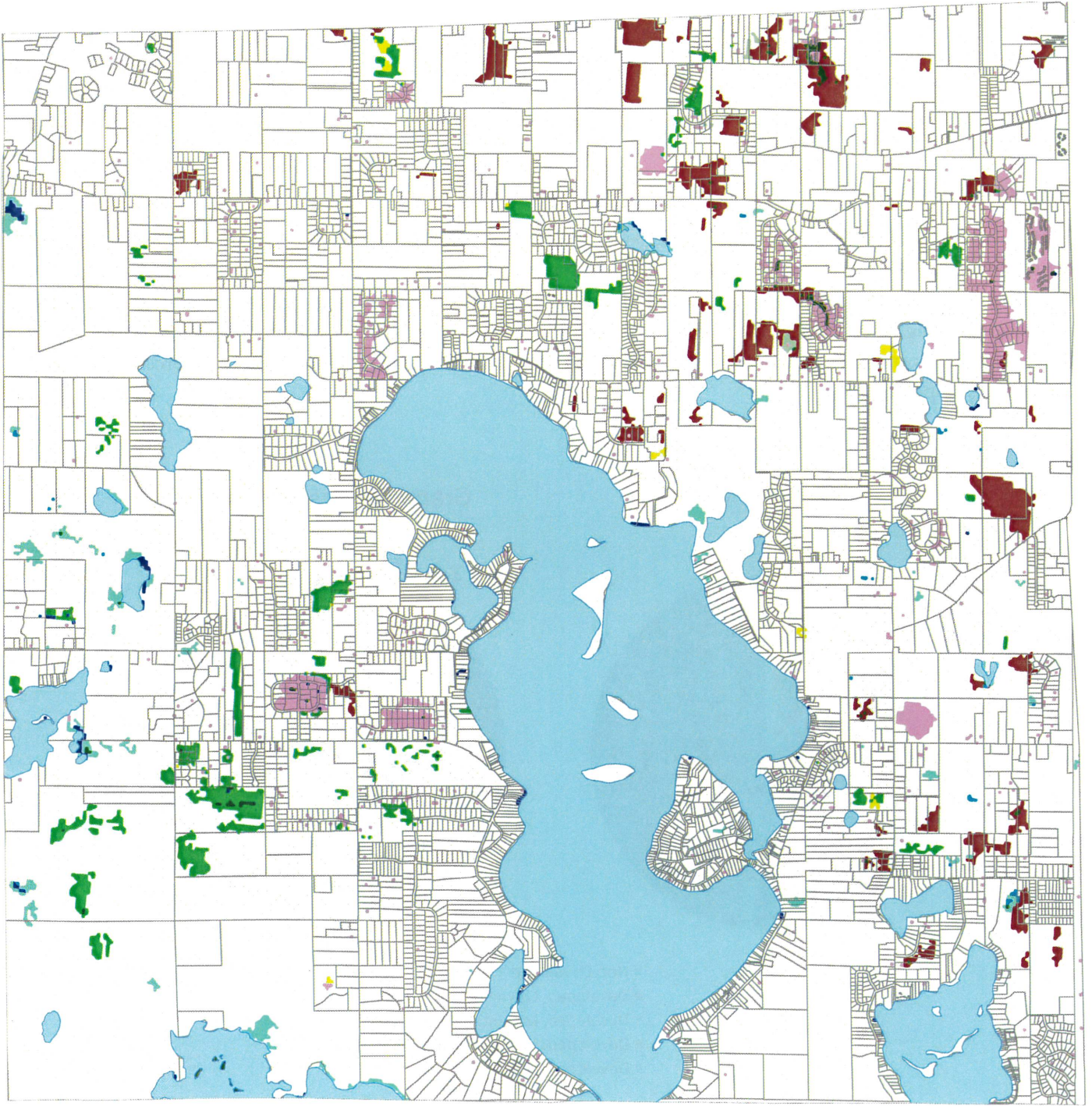
This information is available through the Multi-Resolution Land Characteristics (MRLC). The MRLC consortium is a group of federal agencies who coordinate and generate consistent and relevant land cover information at the national scale for a wide variety of environmental, land management, and modeling applications. The creation of this consortium has resulted in the mapping of the lower 48 United States, Hawaii, Alaska and Puerto Rico into a comprehensive land cover product termed, the National Land Cover Database (NLCD), from decadal Landsat satellite imagery and other supplementary datasets.

Map 6 provides a side-by-side comparison of land use changes from 2001 to 2019, it is clear that the rural and agricultural nature of the community is slowly changing to that of a more suburban residential and recreational area. Given the level of detail on the side-by-side maps, it is difficult to see the specific changes in each land cover category. Map 7 highlights just the land coverage changes over this timeframe. The remainder of this section examines each broad land use coverage category – forests, wetlands, developed land, and agriculture – more completely and compares trends to Grand Traverse County overall.

Table 5-1 Long Lake Township – Land Cover Breakdown

	2001		2019		Change	
	Percent Coverage Township/County	Est. Acres Coverage Township/County	Percent Coverage Township/County	Est. Acres Coverage Township/County	Est. Acres 2001-19 Township/County	% Coverage Change Township/County
Open Water	14% 23%	3,149 87,034	13% 23%	3,055 89,790	-94 -243	-3.01% -0.3%
Perennial Snow/Ice	0% 0%	0 0	0% 0%	0 0	0 0	
Developed, Open Space	6% 4%	1,436 17,299	6% 4%	1,441 17,210	5 -90	0.3% -0.5%
Developed, Low Intensity	5% 4%	1,141 13,504	5% 4%	1,246 14,195	105 698	9.2% 5.2%
Developed, Medium Intensity	1% 2%	308 5,862	2% 2%	434 7,437	126 1,581	40.9% 27.0%
Developed, High Intensity	0% 1%	28 2,349	0% 1%	47 2,854	19 506	67.9% 21.5%
Barren Land	0% 0%	22 1,626	0% 0%	33 1,517	11 -115	50.5% -7.1%
Deciduous Forest	24% 22%	5,394 84,378	23% 22%	5,320 85,261	-74 890	-1.4% 1.1%
Evergreen Forest	7% 7%	1,582 26,214	6% 6%	1,437 22,829	-145 3,386	-9.2% -12.9%
Mixed Forest	6% 5%	1,350 20,621	6% 5%	1,343 19,520	-8 -1,101	-0.6% -5.3%
Shrub/Scrub	1% 2%	143 6,323	1% 2%	249 9,050	106 2,726	74.1% 43.1%
Grassland	15% 9%	3,314 35,136	13% 8%	2,867 31,354	-447 -3,783	-13.5% -10.8%
Hay/Pasture	1% 0%	139 1,837	1% 0%	143 1,818	5 -19	3.6% -1.0%
Cultivated Crops	12% 12%	2,748 47,859	13% 13%	3,044 49,997	295 2,138	10.7% 4.5%
Woody Wetlands	8% 9%	1,845 33,050	8% 9%	1,851 33,062	6 13	0.3% 0.0%
Emergent Herbaceous Wetlands	1% 0%	147 1,619	1% 0%	238 1,824	91 198	61.9% 12.3%
Total	100%	22,748 384,710	100%	22,748 384,710		



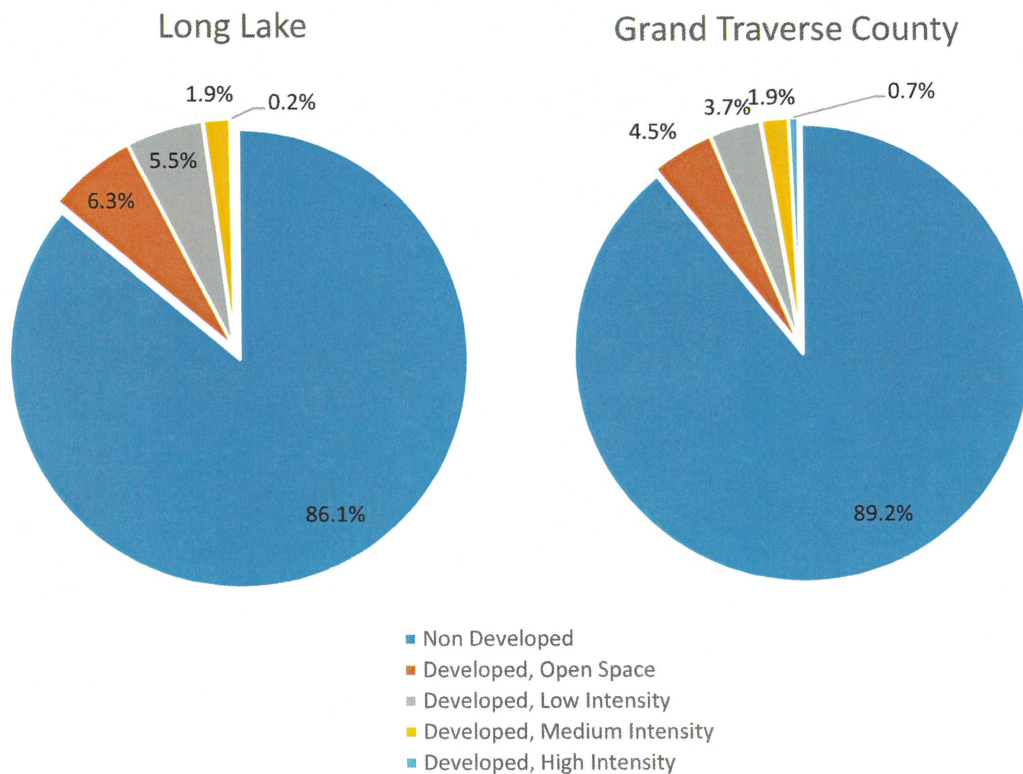


- Water change
- Urban change
- Wetland within class change
- Herbaceous wetland change
- Ag/hay/pasture change
- Cultivated crop change
- Hay pasture change
- Persistent grass and shrub change
- Barren change
- Forest them change
- Woody wetland change

Land Cover Change 2001 - 2019

Development and Impervious Surfaces (2019)

10.84% of Grand Traverse County is developed and 3.25% is impervious. In Long Lake, 13.9% of the land is developed and 6.9% are impervious roads. More development means more impervious surfaces, which translates into a greater risk for increased flooding and decreased water quality. Areas with impervious surface rates approaching or exceeding 12 percent to 15 percent will likely experience negative impacts to water quality. Severe degradation can be expected when rates reach 25 percent. This chart highlights the percentage of the County developed in 2019.



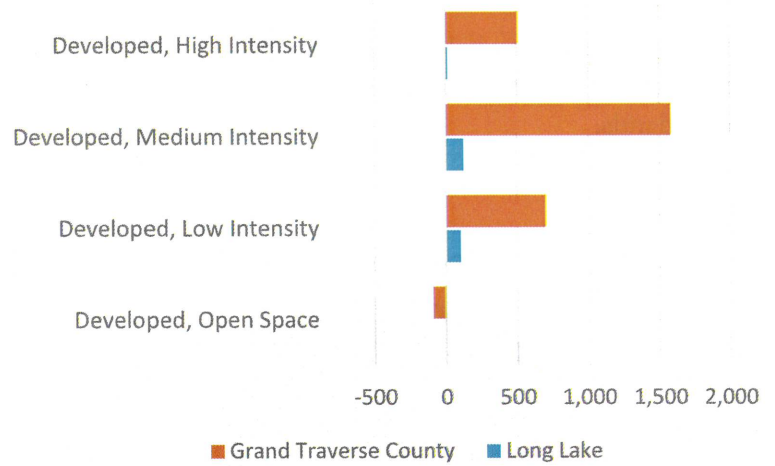
Development Change

4.20 square miles of development and 2.40 square miles of impervious surfaces were gained between 2001 and 2019. Low density and open space development can impact water quality negatively, though usually to a lesser degree than with higher density development. This graph shows how each type of development changed between 2001 and 2019.

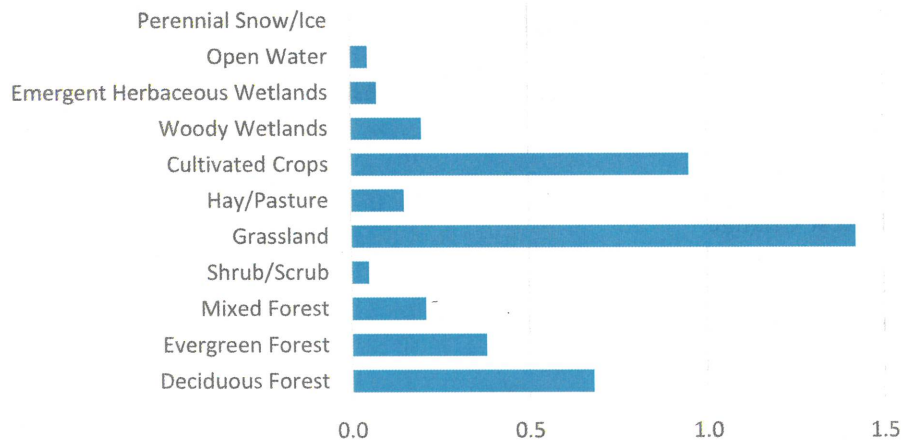
What's Being Lost

Unlike natural land cover changes, land lost to development tends to be permanent. This graph shows the types of lands that changed to developed between 2001 and 2019. It does not show any potential losses of previously developed areas, as this is a rare occurrence.

Development Change 2001-2019 in acres



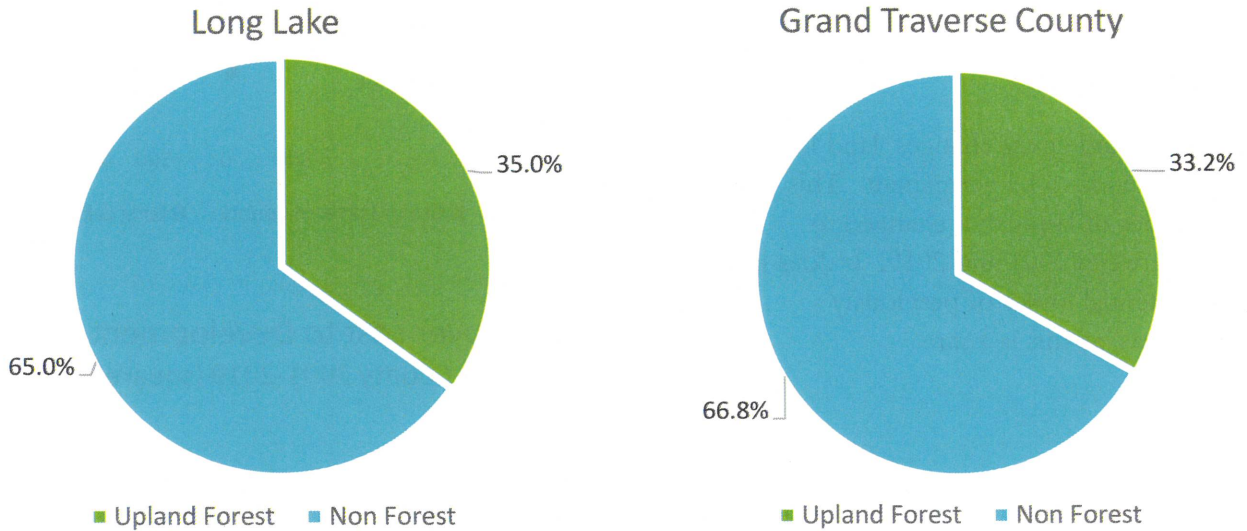
Land Cover Lost to Development
Grand Traverse County 2001-2019 (square miles)



Current State of Forests (2019)

33.17% of Grand Traverse County is forest

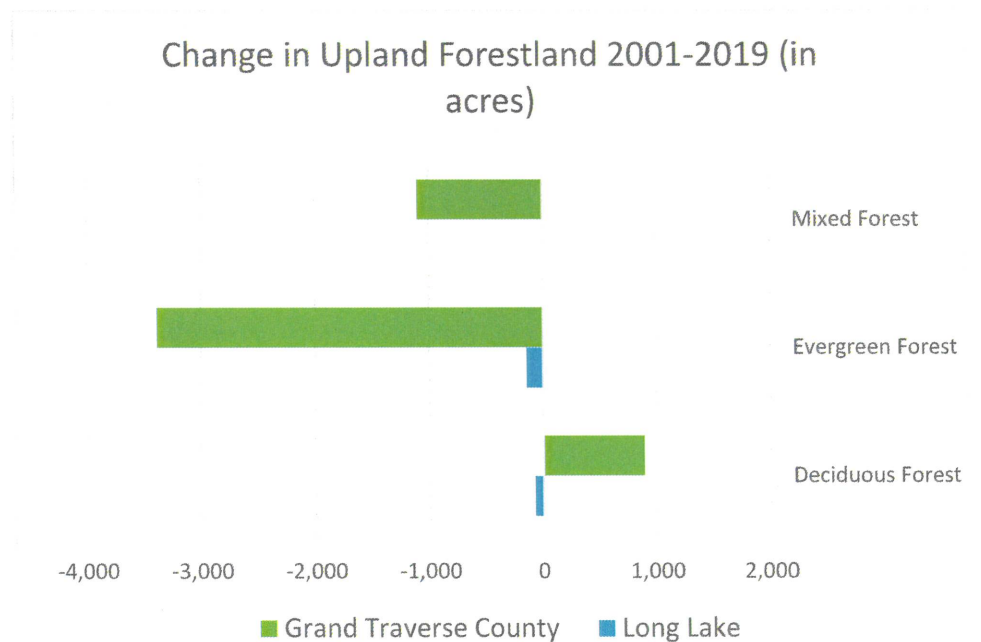
Healthy forests are a vital part of a healthy ecosystem, but it is important to understand the types of forest that are present. This chart shows the percentage of the County that is forested as well as the percentage in uplands and wetlands.



Forest Change

5.63 square miles (3,597 acres) of the forest was lost between 2001 and 2019 in Grand Traverse County. In Long Lake Township, total loss was 0.35 square miles (255 acres).

Knowing which types of forest are being lost or gained can be as important as knowing about changes in the total forest area. Different forest types can differ in ecosystem value. This graph highlights changes in each forest type over 2001-2019.

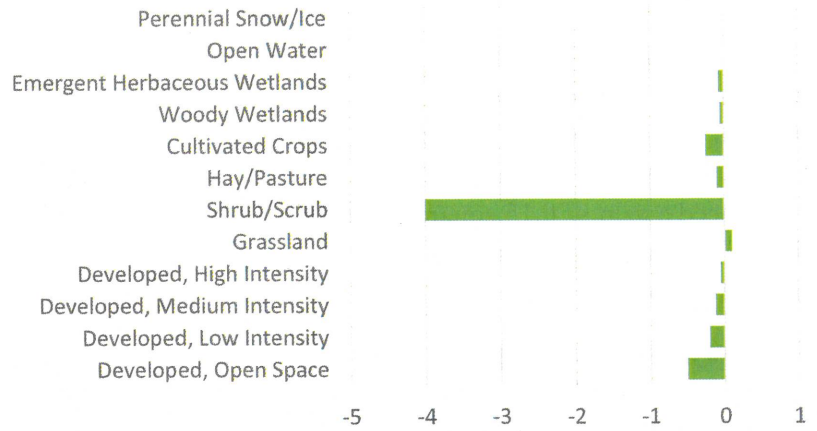


What is Changing

A forest can go through a transitional period after a fire, other natural disaster, or logging operation, but typically can be expected to recover. Some losses, such as forests converted to development, tend to be permanent. This graph highlights the transformation of forestlands into different land cover types. It also highlights the origin of any forest gains.

Although this information is not available at the township level, it appears that most of the loss of forest cover was due to forest management by the State or other managed forest land or logging by landowners without development of the property. The exception to this is tree cover loss to new residential development in Sections 20 and 21 and to a lesser extent Section 1 over this time period.

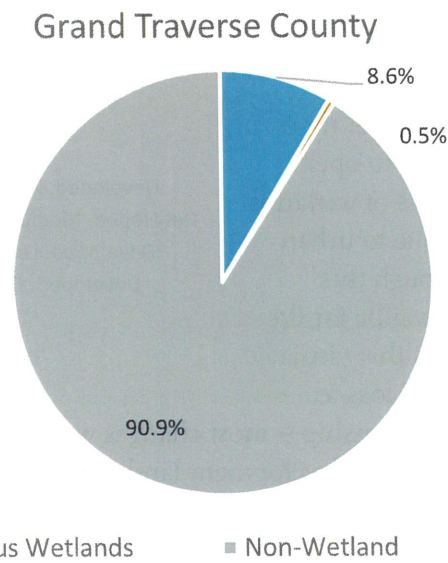
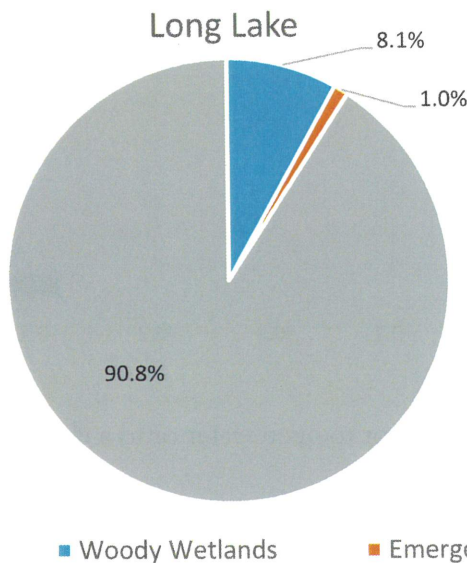
Forest Conversion 2001-2019 Grand Traverse County (square miles)



Current State of Wetlands (2019)

9.07% of Grand Traverse County is wetland.

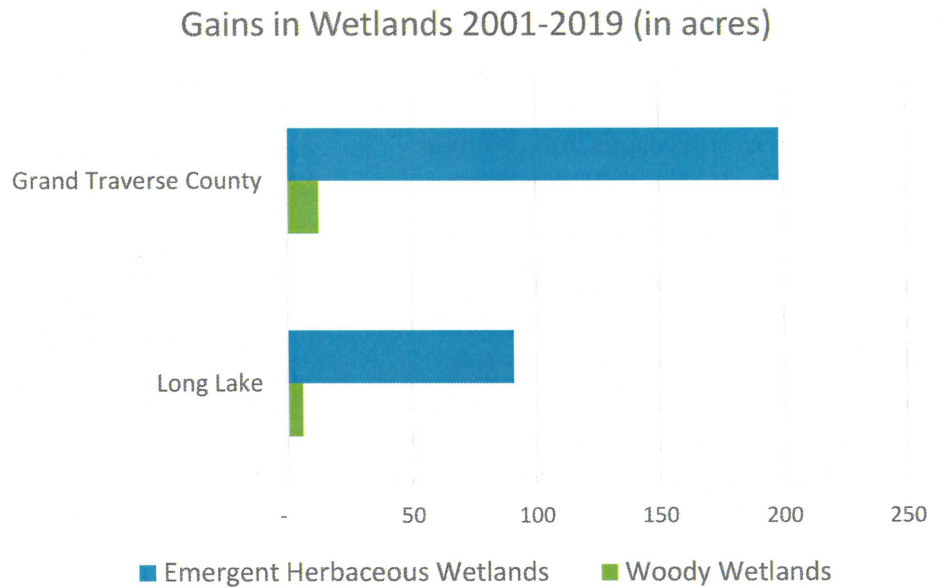
Wetlands are among the most productive environments on Earth. Wetlands provide habitat and food, buffer the impacts of storm surge and flooding, and help control erosion. Wetlands also absorb, store, and filter urban and agricultural runoff to maintain water quality. This chart highlights how much of the County is covered by wetlands. The proportions of land covered by wetland are very similar between the Township and the County overall where approximately 19% of land cover is wetlands.



Wetland Change

0.34 square mile (211 acres) of wetlands were gained between 2001 and 2019 in Grand Traverse County. Long Lake Township experienced a gain of 0.15 square mile (97 acres) of wetlands over this time period.

When a wetland area or type undergoes change, the benefits of the wetland will change as well. Understanding which type of wetland is changing, and how, can help in determining the eventual impacts of the change. This graph highlights the changes in each type of wetland.

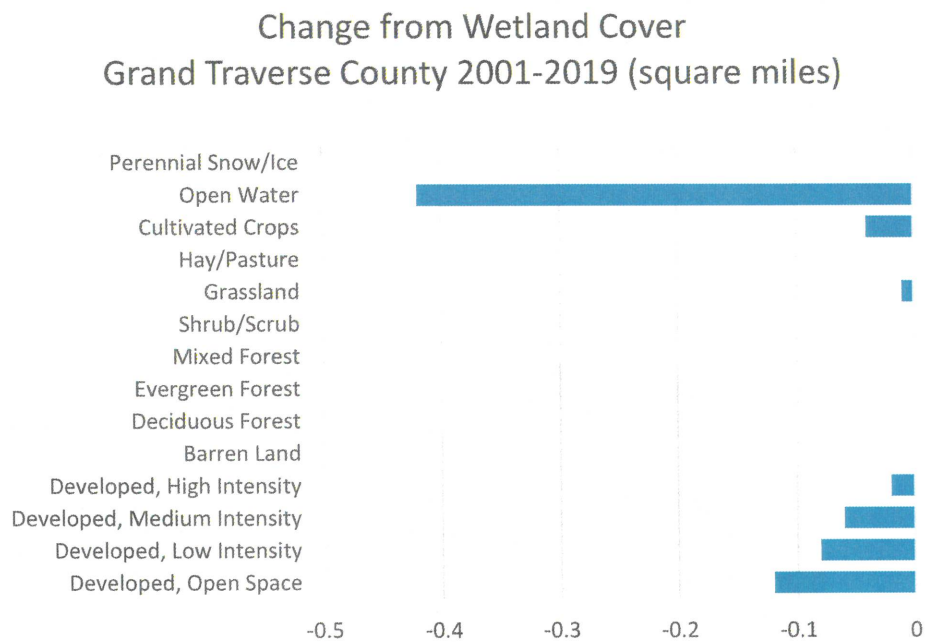


What is Changing

Understanding wetland changes can help communities identify potential management actions to reverse or mitigate the trend. This graph highlights the transformation of lost wetlands into different land cover types. It also highlights the origin of any wetland gains.

As seen in the chart, other than conversion of wetland to open water, most of the loss of wetlands in the County was due to urban development. Although this information is not available for the Township, it appears that virtually no wetland areas were lost to

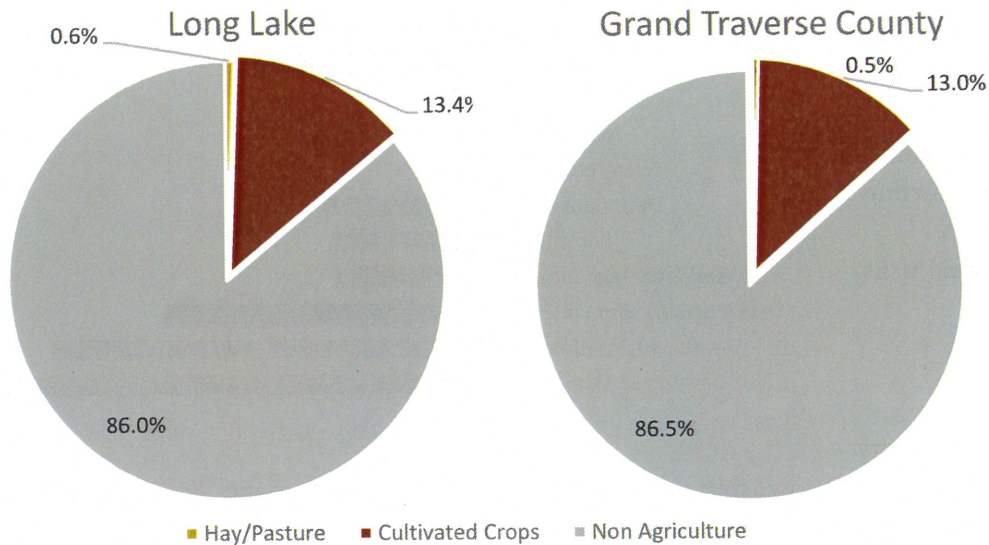
development in the Township – most changes were due to a change from or to open water or to a change in the wetland type or other non-development land cover.



Current State of Agriculture (2019)

13.47% of Grand Traverse County is agriculture.

NLCD Agriculture classes include land used for production of annual crops as well as areas intensively managed for livestock productions. Agricultural areas are managed in a variety of ways including tillage, fertilization, and other man-made interventions that make the area more productive than it would be naturally.



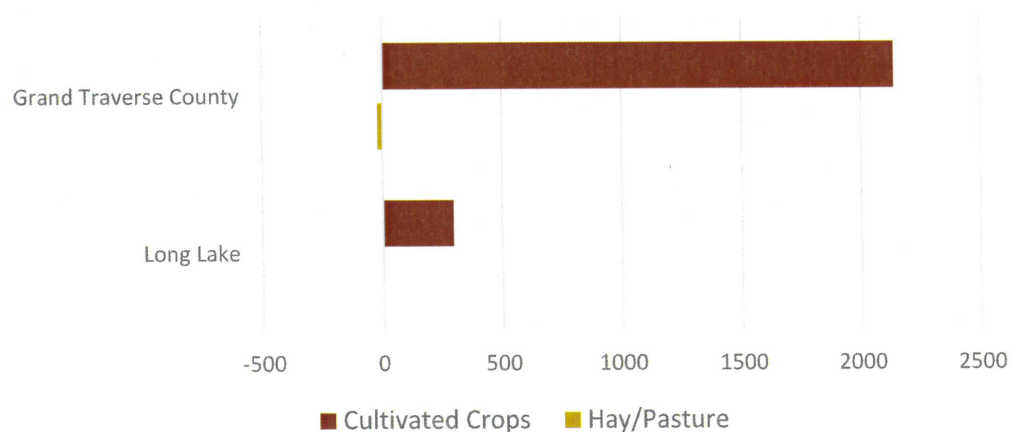
Agriculture Change

3.31 square miles of agriculture were gained between 2001 and 2019.

Agricultural lands can have a high impact on surrounding areas. This can be for a variety of reasons including runoff, pesticide application, fertilizer application, etc. This can also show conversion of natural areas to more highly managed areas which relate to overall increases for local impacts. This can also include areas of hay pasture, which generally have lower impacts on the landscape, to higher production cultivated crops.

Decreasing agricultural land can show habitat restoration, increased urbanization, decreasing water availability, and a host of other factors important for resource managers and local communities.

Agriculture Changes 2001-2019 (in acres)



What is Changing

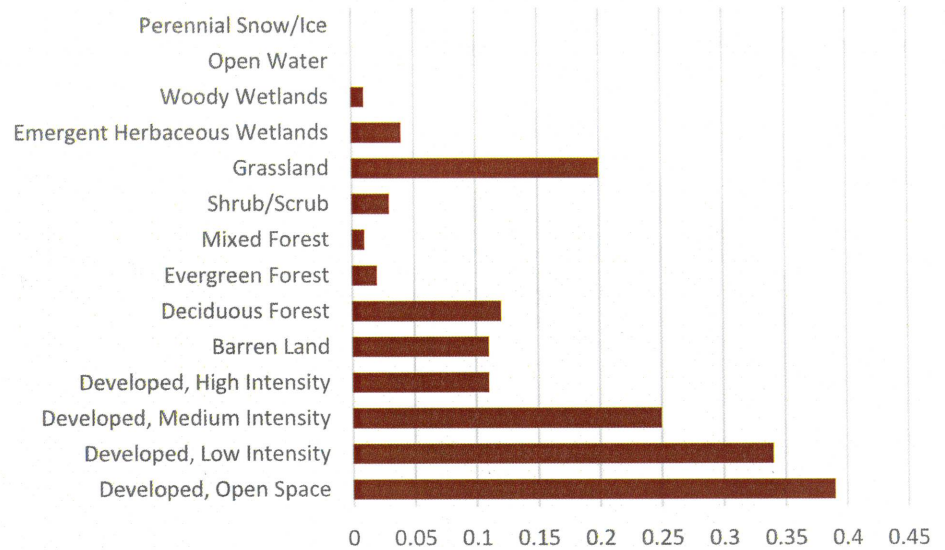
As agricultural lands increase or decrease, a variety of impacts can happen. Increasing agricultural lands can sometimes identify increased water usage as well as loss of natural habitat.

Decreasing agricultural lands can highlight droughts, long-term water shortages, habitat restoration, etc. Understanding how these changes are occurring and to what extent help to identify usage and potential risks for producers and the community.

Although this data is not available at a township level, very

little agricultural land was lost in the township over this time period to development. Some notable exceptions were the construction of the church in Section 24, and some conversion to residential subdivisions in Sections 1 and 12. Significant areas were converted from grassland to cultivated land in Sections 2, 3, and 16.

Agricultural Losses by Land Use 2001-2019 Grand Traverse County (square miles)



CURRENT ZONING AND FUTURE LAND USE

The Township's current zoning map (see Map 8) is generally consistent with its existing future land use map. There are, however, a few exceptions that may present serious challenges in the future. A future land use map should be thought of as a blueprint for a community. The goal of a Master Plan and the Zoning Ordinance that implements it is to work toward achieving the patterns outlined in the future land use map.

SURROUNDING COMMUNITIES

Map 9 also reflects a generalized version of the existing future land use maps of the communities surrounding Long Lake Township. These include Elmwood and Solon Townships to the north, Almira Township to the west, Green Lake Township to the south and Garfield Charter Township to the east. The future land use categories have been retitled for each jurisdiction to enable an overall comparison. For a detailed comparison, the reader is referred to the text of the various plans.

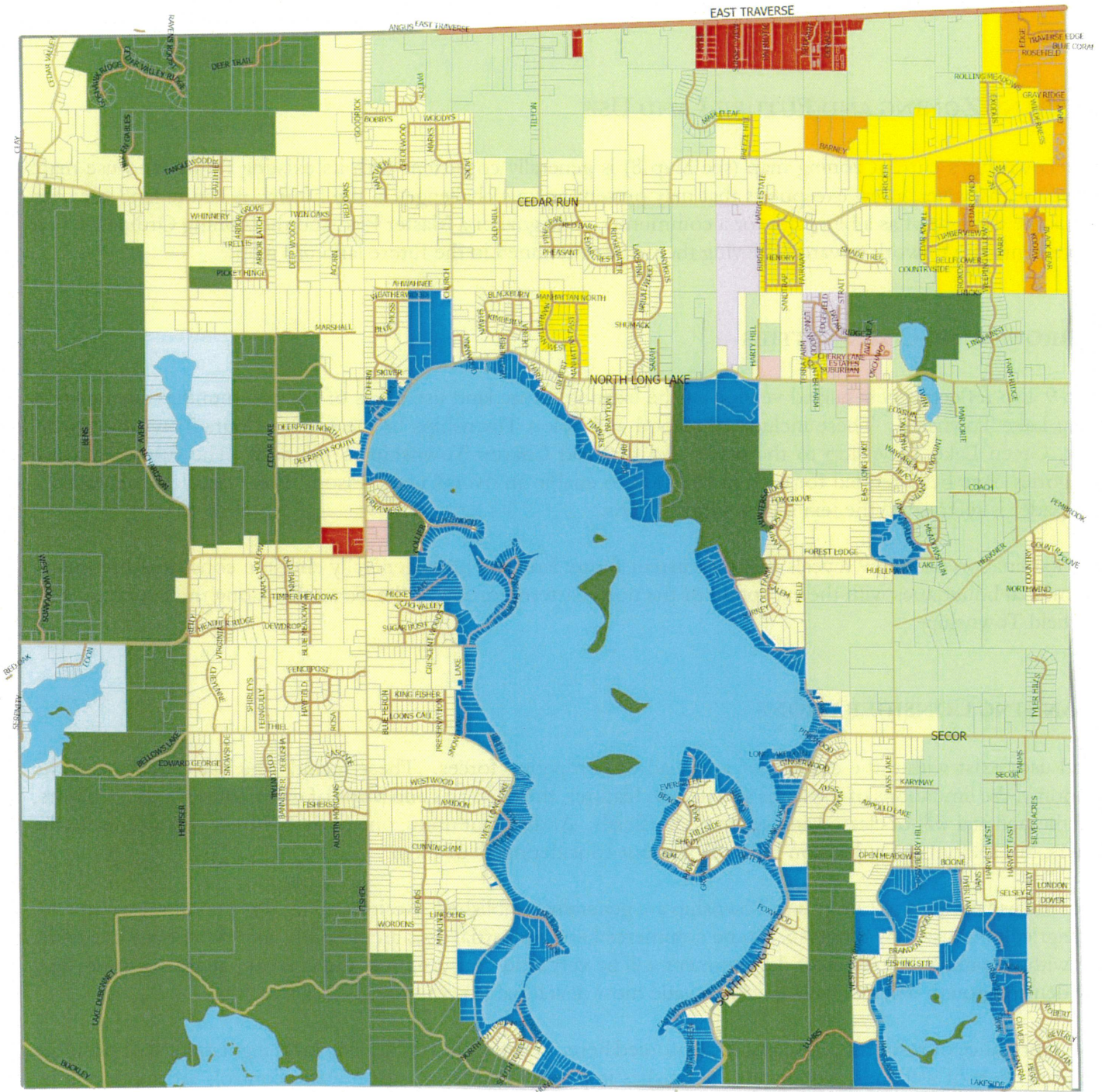
An examination of Map 9 reveals that the current future land use plans generally envision consistent uses along the mutual boundaries with the exception of the northeastern portion of the Township along the boundary with Garfield Township.

PLANNING CONSIDERATIONS

Land uses exist within the context of a myriad of competing forces. These include the marketplace and the economy, the limitations of the lands and natural features, the decisions and plans of other entities and neighbors, and the political will of elected and appointed officials. At different times, one of these forces may dominate the others, but seldom can a decision be made without considering all of them.

The land use patterns in Long Lake Township are generally established. Residential uses will continue to expand, and agricultural use may diminish. Some commercial and industrial uses are possible, and potentially desirable. But without public utilities, most development will be very land-consumptive; and current patterns of sprawling, low density growth will relatively quickly invade most developable portions of the Township.

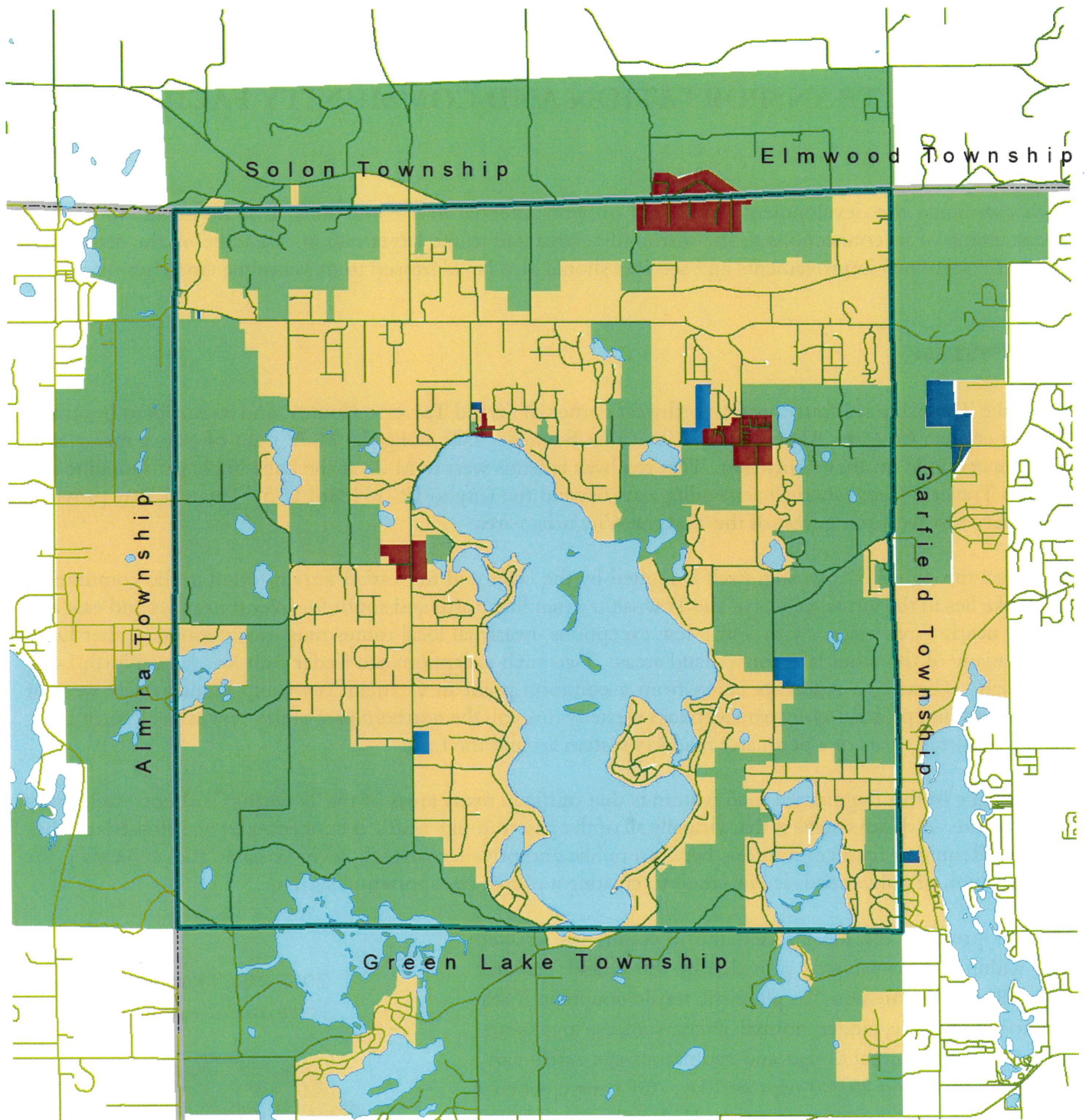
The importance of resource protection is reinforced here. Creating and enhancing local regulations that promote the protection of wetlands, woodlands, diminishes impervious surfaces, storm water controls are supported by this analysis.



- Conservation Recreation
- Agricultural
- Low Density Residential
- Moderate Density Residential
- High Density Residential
- Lake Residential
- Natural Lakefront
- Local Business
- General Business
- Planned Unit Development

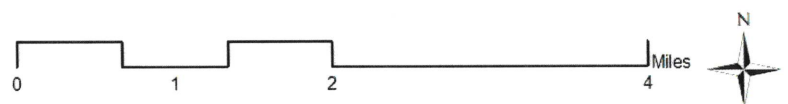
Current Zoning





Consolidated Future Land Use Plans

- Commercial
- Conservation/Agricultural
- Institutional
- Suburban Residential



CHAPTER 6. TRANSPORTATION AND COMMUNITY FACILITIES

When examining the development trends and growth potential in a community, it is important to gain an understanding of its connections to the surrounding area and to the larger region. In addition, the nature and extent of community improvements and services should also be addressed to measure the amenities offered to residents.

ROAD SYSTEM

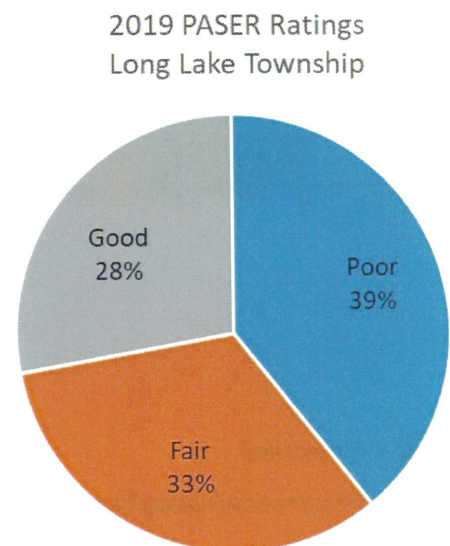
Long Lake Township is located in the northwest corner of Grand Traverse County, and its northern boundary adjoins Leelanau County. About two-thirds of that boundary falls along the M-72 right-of-way, a major east-west connection in northern Michigan. That roadway extends west to M-22 at the Lake Michigan shoreline and east into Traverse City; eventually extending east beyond the City to US-131 and I-75. This roadway provides the primary east-west route west of the Traverse City urban area.

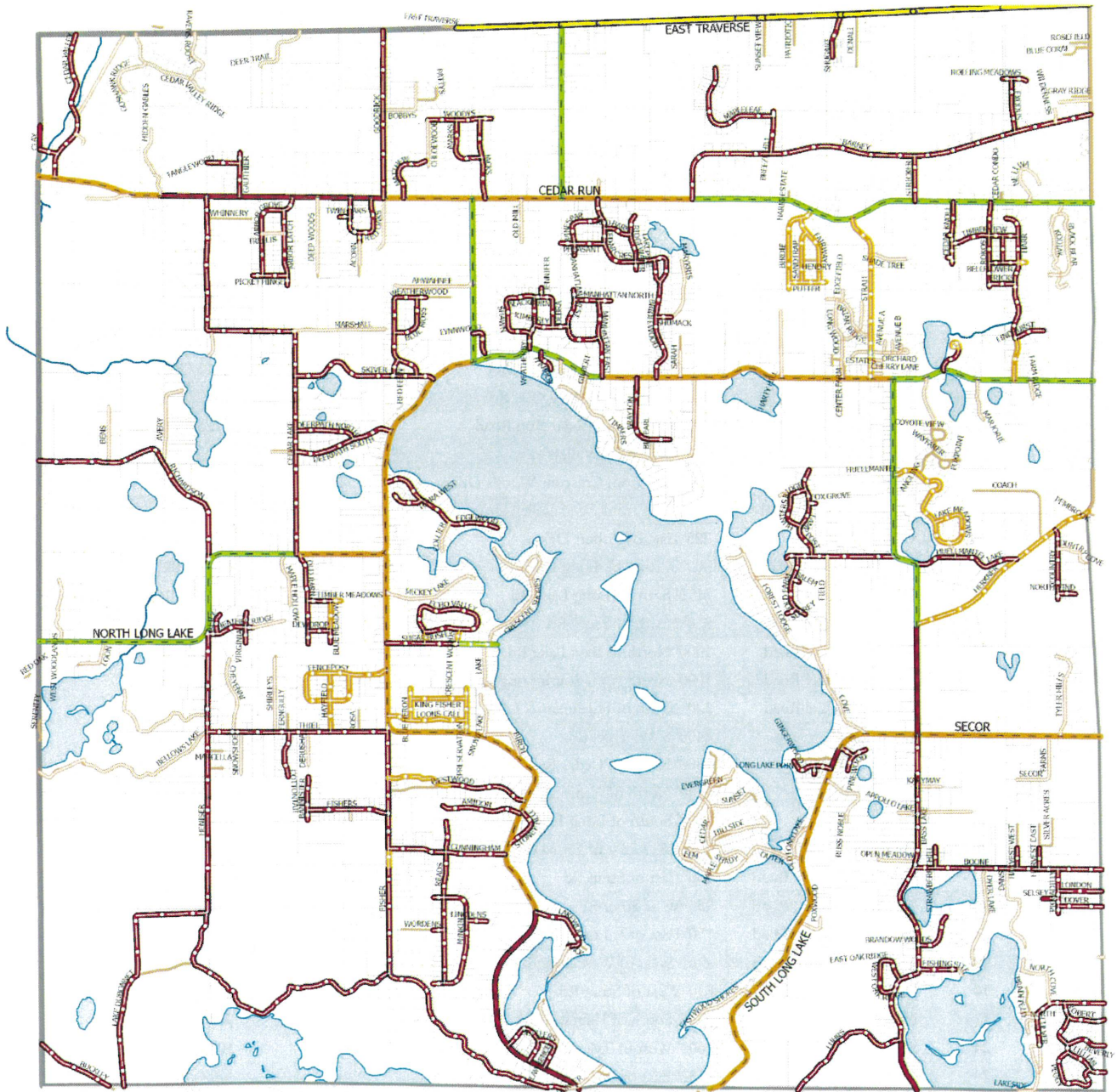
This travel through the Township itself is limited by the lakes and the varied terrain found in the community. Long Lake lies in the virtual center of the Township extending north and south for over four miles and east and west for nearly three miles. With only a few exceptions, nearly all local routes must divert around either Long Lake or many of the other lakes or wetland areas. Two such exceptions are Cedar Run Road and North Long Lake Road. These two roadways begin from a common point in Garfield Township immediately west of Traverse City and proceed along parallel tracks westerly through the northern part of the Township. North Long Lake Road forms a part of a perimeter roadway system around the Lake.

An advantage of this fragmented road pattern is that traffic in many areas of the Township is almost exclusively local in nature. A disadvantage is that virtually all of the pass-through traffic is concentrated on a limited number of roads. Requiring road connections between public and private roads wherever possible and advocating for the connection of public roads is important to creating a robust transportation system.

Table 6.1 provides the most recent traffic counts on selected roads within the township as provided by the Grand Traverse County Road Commission. To place the traffic counts in Table 6.1 into perspective, under normal circumstances, a two-lane paved road with normal design and geometrics can safely carry volumes approaching 20,000 trips per day. Of course, when a road functions near its capacity, there are likely to be times during the day when volumes temporarily exceed its capacity and the result is a general impression that traffic in the community needs to be addressed.

Another means of analyzing the public road network is through PASER ratings. PASER – the pavement surface evaluation and rating system – is a standardized means of surveying and rating roads. Grand Traverse County Road Commission uses PASER to rate all paved roads maintained by them. PASER ratings range





ROAD TYPE

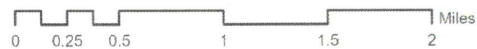
- County Local
- County Primary
- State Trunkline

All local/unrated roads (no pattern)

PASER RATING

- 0 Not Rated
- 1 - 4 Poor
- 5 - 7 Fair
- 8 - 9 Good

Transportation



**Table 6.1 Average Daily Traffic Counts
Long Lake Township**

Section	Road	Location	Count	Count Date
1	Barney Road	1600' W. of Gray Rd	911	8/16/2019
25/26	Bass Lake Rd	790' N. of Boone Rd	1,543	8/14/2017
25	Boone Rd.	1240' East of Bass Lake Rd	1,942	7/11/2016
12	Cedar Run Road	1150' West of Gray Rd	4,098	7/23/2021
10	Cedar Run Road	850' West of Barney Rd, (west intersection-LL twp)	3,386	7/23/2021
11	Cedar Run Road	210' West of Stricker Rd	4,582	11/28/2016
6	Cedar Run Road	Btw Cedar Lake & Cedar Valley	2,588	8/13/2001
9	Church Road	2240' North of N. Long Lk. Rd.	2,679	10/2/2018
9	Church Road	990' South from Cedar Run Road	1,727	9/25/2006
21	Crescent Shores Road	150' W of Echo Valley	768	6/25/2018
21	Crescent Shores Road	320' East from Crescent Woods Drive	234	5/3/2006
21	Crescent Shores Road	300' West from Echo Valley Drive	487	5/3/2006
36	Culver Rd	225' East of Robert Dr	414	8/14/2017
13	East Long Lake Road	500' S. from N. Long Lake Rd	2,367	8/13/2021
24	East Long Lake Road	2175' S. of N. Long Lake Rd	2,787	10/2/2018
24	East Long Lake Road	950' North of Secor Rd.	3,759	6/30/2014
23	East Long Lake Road	1000' North of Bass Lake Rd.	3,709	9/10/2008
23	East Long Lake Road	1000' North from South Long Lake Road	3,794	6/13/2006
14	East Long Lake Road	320' North of Huellmantel Lake Road	2,205	7/20/2004
28	Fisher Road	2400' S. Of Thiel Rd.	778	5/13/2002
4/5	Goodrick Road	1800' North of Cedar Run	2,270	10/2/2018
1	Gray Road	1900' North of Cedar Run	3,946	7/20/2011
18	Herkner Road	2600' South of Long Lake Road	2,019	6/11/2015
24	Huellmantel Lake Road	0.25 miles East of East Long Lake Road	45	8/23/2004
14	North Long Lake Road	150' East of Strait Rd	3,198	8/16/2021
14	North Long Lake Road	950' W of Strait Rd	5,188	8/13/2021
24	North Long Lake Road	150' East of E Long Lake Rd	6,396	8/15/2021
20	North Long Lake Road	.6 mi West of West Long Lk. Rd.	2,711	6/30/2014
14	North Long Lake Road	830' West of Strait Rd.	7,513	10/2/2013
17	North Long Lake Road	1616' South of Edgewood	4,881	9/27/2007
24	Secor Road	1600' West of Tyler Hills Dr	4,801	10/9/2018
24	Secor Road	1552' East of Bass Lake Rd.	4,330	6/24/2014
26	South Long Lake Road	825' West of Bass Lake Road	7,509	6/9/2005
26	South Long Lake Road	425' North of S. Outer Drive	6,402	6/9/2005
35	South Long Lake Road	120' North of Eastwood Shores Drive	5,810	6/9/2005
11	Strait Road	1275' North of Long Lake Rd.	2,581	6/11/2015
28	Thiel Road	500' West of West Long Lake	620	7/24/2000
4	Tilton Road	1300' North of Cedar Run	2,311	10/9/2018
33	West Long Lake Road	1800' N of S Long Lake Road	1,892	2/24/2017
1	West M-72	1000' west of Gray Rd	11,106	7/24/2000

from 1 (Failed) to 10 (Excellent). The county asset management plan uses PASER data to determine how to best allocate resources and identify future projects. Of the 74 miles of paved County roads in Long Lake Township, 28% had a “good” rating (from 8 to 10), 33% had a “fair” rating (from 5 to 7) and 39% had a “poor” rating. Of the 25.64 miles of primary roads in the Township, just over 2 miles are rated as poor. These stretches include Cedar Run Road from Goodrick Road west to the township boundary, West Long Lake Road from Lakewood south to the township boundary, and South Long Lake Road from Eastwood Shores to the south township boundary.

An important aspect of the transportation plan for the township is a non-motorized plan. Sustainable, resilient communities have a secondary means of getting people where they need to go. This is important to public health, expanding recreational options, energy savings, lowering vehicle trips on the roads, and providing options for those who are disabled or do not drive.

Transportation Plans

The Michigan Department of Transportation includes no planned infrastructure projects in Long Lake Township under its current Five-Year Road and Bridge Program, Rebuilding Michigan Program, and State Transportation Improvement Program.

The Grand Traverse County Road Commission has benefitted from a 1-mill levy approved by voters throughout the County to help pay for the maintenance and upgrade of local roads and bridges county-wide. The millage was renewed in 2020 and is expected to generate 5 million dollars in revenue through 2023 for additional improvements. The Road Commission’s goal is to extend the life of roads through sealing or other methods or, where necessary, completely rebuild roads to achieve an overall Paser rating of “good” for 80 percent of county roads.

The roads paid for through the millage are restricted to arterial roads. Local subdivision roads or other non-arterial roads such as Barney Road are not generally programed for these improvements. To improve public subdivision roads, property owners on the road must participate in a Special Assessment District (SAD) to pay for the bulk of the road upgrade. The Road Commission participates for a portion of the costs (usually about 25%) and the Township can also participate to lower the assessment to property owners. The Township will continue to work with developers, the Road Commission, as well as current property owners to find better and more affordable ways to pay for future upgrades. Currently, the developers of any new public subdivision roads are required to pay an up-front fee for each lot to be served to be set aside for future capital improvements. The Township will continue to explore ways of requiring developers of private roads to set aside similar funds to help pay for these future improvements. In all cases, the developers of new private roads are required to set up a mechanism for the property owners served by the private road to pay for on-going maintenance such as snow removal as well as future capital upgrades.

Increased volumes of traffic along arterials may be anticipated with further expansion of the housing stock both in the Township and in the surrounding areas of the County. A typical single-family residence generates an estimated 9.52 trip ends per day according to the Institute of Traffic Engineers, *Trip Generation*, 10th Edition. As indicated in Chapter 3, the population of the township could increase by approximately 800 people between 2020 and 2025. This could mean in excess of 7,600 additional vehicle trips throughout the township per day. Of

course, these estimates do not take into account additional trips emanating from outside the immediate area and either passing through to destinations elsewhere or destined for local facilities.

The poorly rated stretch of West Long Lake Road is programmed to be repaved. Several other roads are expected to be chip sealed in the coming years. These include **Gray Road** from Cedar Run Road to M-72, **Cedar Run Road** from west of Barney Road to Gray Road, **Tilton Road** from Cedar Run Road to M-72, **Church Road** from North Long Lake Road to Cedar Run Road, **Strait Road** from North Long Lake Road to Cedar Run Road, **East Long Lake Road** from Secor Road to North Long Lake Road, **North Long Lake Road** from West Long Lake Road to North of Edgewood Avenue, and **Secor Road** from South Long Lake Road to the eastern township boundary.

Public Transit

Public transportation is available in Long Lake Township through the Bay Area Transportation Authority (BATA). This public transportation service was established in 1985 when Traverse City's Dial-A-Ride and the former Leelanau County Public Transit combined to create an organization that serves both counties. BATA has grown to an organization of 120 employees providing half a million rides in the region annually. BATA offers the City Loop, 5 fixed route lines with daily service; the Bayline loop providing free service on at 15-minute intervals between Acme and Garfield Township, the Village Loops providing fixed route service to Interlochen, Suttons Bay, Northport, Glen Arbor, Empire, Leland, Kingsley, Fife Lake, Acme, Grawn, and Bowers Harbor.

For Long Lake Township residents, convenient park and ride locations are available at the Meijer store on US-31 to access to the free Bayline route, or at the shopping center at Interlochen corners to connect to a fixed route. Bike and ride options are available throughout the BATA system; the Village Loops in Leelanau County provides expanded bike and ride options seasonally. In addition, BATA offers on-demand service, BATA Link, for pickup throughout Long Lake Township. Although the on-demand service can be used anywhere, there is a designated pick up/drop off location at Haywood Park East.

Air Transportation

The Cherry Capital Airport serves not only Grand Traverse County but also the entire northwest Michigan region with modern air travel. It is located at the southern edge of the City of Traverse City, about eight miles from the Township. The facility includes general and commercial aviation facilities. Commercial passenger service is provided by American Airlines, Delta, United, and Allegiant Air. Carriers provide direct links to regional hubs in Detroit, Chicago, and Minneapolis. Cherry Capital now offers 17 nonstop flights to cities across the United States. Destinations include Atlanta, Boston, Charlotte, Chicago, Dallas-Fort Worth, Denver, Detroit, Minneapolis–Saint Paul, Newark, New York (LaGuardia), Orlando, Philadelphia, Phoenix-Mesa, Punta Gorda, St. Pete-Clearwater, and Washington DC (Dulles and Reagan).

Passenger travel through Cherry Capital Airport reached over 600,000 in 2021. This represents a 34% since 2014 and at least a 5% increase year to year during this time span. This excludes 2020, when passenger levels were greatly reduced due to impacts of the pandemic. Cherry Capital is now the fourth busiest in the State of Michigan (after Detroit, Grand Rapids, and Flint). In 1995, Cherry Capital was the sixth busiest in the State.

Cherry Capital has recently expanded one runway, allowing for use by larger aircraft. Cherry Capital has made some recent improvements to equipment and facilities and is in the midst of on-going studies to further expand the airport.

Community Facilities

Long Lake Township residents are served by a broad range of public facilities and services. Facilities include two public elementary schools within the Township as well as the Traverse City West high school immediately adjacent to the Township in Garfield Township on North Long Lake Road. Township governmental offices are located in a multi-purpose community facility which includes the offices, Haywood Park and the current Long Lake Township Fire and Rescue Department. Police services in the Township are provided by the Grand Traverse County.

Beginning January 1, 2016, the Long Lake Township Fire Rescue Department became an independent entity fully funded by the Township. In addition to 1 mill approved by voters to support the Township Fire and Rescue Department, in August of 2020 Township voters approved an addition 1.99 mills over 15 years to fund a full-time station with medical and fire services and a new station building. As a result of this investment, today the Department provides fire rescue and advanced life support (ALS) services to the community with a staff of 11 full time employees providing service 24 hours a day and 7 days a week. The Department currently maintains 7 trucks, 1 ambulance, 1 utility terrain vehicle (UTV), and a fire boat. Of the approved 1.99 mills, 0.44 is dedicated to fund the construction of the new 5-bay, 4-bed facility at a new location approximately ½ mile east of the current location at Township Hall. The new station was completed and occupied in August of 2022.

Parks

The Township has carefully developed a local parks system that is unique among most rural townships in northern Michigan. The facilities include the following:

Haywood Park is located along with the Township Offices on North Long Lake Road. Haywood Park offers outdoor basketball and tennis/pickleball courts, 2 official bocce ball courts, a 1/3 mile running-walking track, a shaded picnic area, 2 pavilions, and 2 playgrounds. This is all open to the public. The park also has three baseball diamonds and two soccer fields available for reservation. The undeveloped Haywood Park East located east of the township hall building was improved beginning in 2015, when an auxiliary parking lot, secondary driveway onto Manhattan East, and a pedestrian connection to the walking track was completed. The Township continued Haywood Park East improvements in 2018 with the addition of a shaded and irrigated picnic area, new picnic pavilion, and bocce ball courts.

Taylor Park is one of the Township's two public beaches, offering a place to swim with a natural, beautifully forested setting. It is located directly across from Long Lake Grocery on North Long Lake Road. Taylor Park is handicapped accessible with a beach and swimming area, a volleyball court, a small dock and a naturally shaded picnic area.

Gilbert Park is another popular public beach. It has a sunny, sandy beach area and a grassy picnic area to relax in the shade. In addition to the swimming and picnic areas, Gilbert Park also has two beach volleyball courts that are provided for public use. Gilbert Park also offers a boat launch and dock outside of the swim area.

Bullhead Lake Natural Area. With support from the Friends of Bullhead Lake and the Michigan Department of Natural Resources Trust Fund, the Township has secured this natural area for local enjoyment. This Natural Area is a piece of undeveloped property where the natural environment area can be preserved and enjoyed. The Natural Area is a home to many frogs, fish, birds and other wildlife that depend on wetlands and the forest and would be greatly disturbed by development. There is no swimming or camping at Bullhead Lake, but enjoying the beautiful scenery provided by Mother Nature is permitted.

Fisher's Run is a 33 acre park that includes a 1.1 mile trail used extensively for cross-country skiing and mountain biking.

Crescent Shores Boat Launch. In addition to the boat launch located at Gilbert Park, which is a high traffic area, Long Lake Township offers a second facility located at the end of Crescent Shores Road, off of West Long Lake Road. With the assistance of a Boating Access Site Grant from the Michigan Department of Natural Resources Waterways program, the Township completed a parking lot to serve the boat launch in 2017 and an upgrade to the ramp in 2018. The parking lot provides 25 boat trailer parking spaces, plus an additional 10 regular vehicle spaces. Other improvements included a widened and improved turn around, expanded landscaping and lighting, prep and tie down lanes, and public restrooms.

South Long Lake Forest Natural Area. In 2006, the Township had the opportunity to purchase 108 acres of undeveloped land that adjoined the existing 120-acre natural area that had been acquired from the State of Michigan in 2001. South Long Lake Forest Natural Area now totals 269 acres including a 40-acre parcel donated to the Grand Traverse Regional Land Conservancy in 2021 to be added to the Natural Area. This property is primarily forested land which includes both upland and wetland habitats. There is a trailhead at the South Long Lake Road entrance.

Timbers Recreation Area. In 2014, the Township acquired the 250-acre Timbers Recreation Area. This property was part of the historic Armour Estate and more recently was a Girl Scout camp for many years. The property includes 9,000 feet of water frontage with 2,000 feet on Long Lake. The 20-acre Fern Lake is totally within the park boundary. Page Lake has 2,400 feet of frontage within the park. Project partners including the Natural Resources Trust Fund, the Oleson Foundation, and the Grand Traverse Regional Land Conservancy made the acquisition of the property, as well as on-going management and improvements, possible. The Township received another round of grants allowing for improvements including a new parking lot, approximately ½ mile of Universally Accessible trailway, and a new accessible boardwalk and fishing pier on Fern Lake. These improvements were completed in 2020.

Cedar Run Creek Natural Area. Cedar Run Creek Natural Area is 336 acres of undeveloped property located in the northwestern portion of the Township and a portion in Almira Township in Benzie County. The area includes 1500 feet of pristine shoreline on the northern end of Cedar Lake and 8700 feet of shoreline on both sides of Cedar Run Creek. There are some designated trails on the property. The abandoned M&NE Railroad grade runs through a portion of the property. The land is a mixture of cedar, hemlock, mature hardwood,

managed aspen and planted red pine that provides an excellent habitat for the Wood Turtle and the Red Shouldered Hawk. The property is adjacent to 40 acres of land owned by the Michigan Department of Natural Resources where there is a managed boat launch.

Twin Lakes Camp is a facility now owned by Long Lake Township, located on North Long Lake Road. The park includes programmed campground facilities for adult and children's groups with kitchen, dormitory and meeting facilities. In addition, the grounds include picnic shelters, playground facilities, trails as well as swimming, boating and fishing in North Twin Lake. The Township and County have recently finalized the transfer of ownership of this property to Long Lake Township.

Public Utilities

Currently there are no public water or sewer systems in Long Lake Township. The exception is that public water has been extended from the Garfield Township system to some developments in Section 1 of Long Lake Township. The County Department of Public Works has extended sanitary sewers along North Long Lake Road as far west as Traverse City West high school, about one-half mile east of the Township boundary. In addition, several private developments use private community wastewater treatment systems in the Township which may eventually become a part of a larger municipal system.

Domestic water service is provided through individual on-site wells. Some community wells serve larger or more densely built developments in the Township. While water quality is adequate, the depth to groundwater in some areas of the Township makes well development expensive. More importantly, the lack of a public water system in the developing portions of the Township results in limitations on fire-fighting capability as emergency response must include water tankers to combat fire.

Recently, Long Lake Township has partnered with Garfield Township to extend public water to one development in the Township, Black Bear Farms, with poor water quality. This was made possible with a grant from EGLE (Michigan Department of Environment, Great Lakes, and Environment). This requires a franchise agreement with Garfield Township and opens up the possibility of extending public water to more properties in this northeastern part of the Township. This may also be a step toward the Township taking over the public water infrastructure within Township boundaries and develop its own public water system. Garfield Township water is being extended to two other nearby developments from this line.

Because the northeastern portion of the Township is where the highest density development is permitted, this is the logical location to provide public water or even public sewer first. The wells are deepest in this part of the Township as well. Any move toward providing public utilities to service this area will allow for a concentration of densities, more efficient use of land and public resources, and a more reliable source of water for fighting fires.

The Township requires septic system inspections at the time of sale for properties with an individual on-site septic system and also in association with short term rentals. These inspections are required through the Time of Transfer Septic Inspection Ordinance beginning in 2009 and the Short Term Rental Ordinance beginning in 2019. This added oversight has greatly lowered the chance of septic system failures and has encouraged replacement of obsolete systems. Providing public sewer within fragile ecosystems could have an even larger impact on water quality and public health. Logical areas to target may include lakefront properties and locations where wetlands and hydric soils are present and residential densities are relatively high.

The Township should consider undertaking a comprehensive study to identify areas where public water and sewer could provide the greatest benefit and further to explore possible means of providing these systems, funding sources, and possible timing.

Beyond water and sewer services, the Township is well-served with natural gas, electrical and telecommunications services – including broadband internet access. Almost the entire township is part of the cable broadband service area for Charter Communications. This offers very good download speeds to meet the needs of most individuals and businesses. The exceptions are the State-owned lands in sections 30 and 31 and also some areas along Fisher Road in Section 33. Satellite or fixed wireless internet service is available throughout the township at much reduced download speeds.

Planning Implications

As seen throughout this Plan, the residents of Long Lake Township have a strong connection to the rural and low density development patterns prevalent in the township. Extension of public water and sewer promotes more growth and in turn more demand on the road system and other public services as well as the potential stress on the natural environment. Balancing the responsible extension of services and controlled growth with the preservation of large swaths of undeveloped and agricultural lands, and the preservations of fragile ecosystems is a central goal of this Plan.

Thoughtfully working with township partners, such as the Grand Traverse County Road Commission, to plan for road improvements is important to ensure that all interests are taken into consideration, that the road system is robust, and that there is a clear mechanism to plan and pay for upgrades. This Chapter supports the creation of a non-motorized pathway plan.

SECTION 3. COMPREHENSIVE PLAN

Section 2 of this Plan outlined the current conditions and planning trends facing Long Lake Township. The information and findings of that section have been used to inform goal setting to form the policy basis of this Plan. The following goals and objectives have also been drawn from the input received through community surveys and the Planning Commission's planning process.

CHAPTER 7. GOALS & OBJECTIVES

As a result of the Township's efforts to form a community consensus opinion about growth and development in the community, a series of broad goal statements has been developed. Each of these is supported by more specific objectives. The Plan is founded on the policies outlined in the following statements. The goals are intended to describe a desirable end state or the condition of the Township into the future. They are intentionally general but all are felt to be attainable through concerted effort. The objective statements tend to be more specific and may be regarded as milestones in the journey to achieve the larger goals.

WOODLANDS AND NATURAL AREAS

GOAL 1. Large and interconnected areas of healthy and viable woodlands will cover substantial areas of the Township.

OBJECTIVES:

- a. Update the 2005 Natural Features Inventory and expand its scope to become a Greenways/Green Infrastructure Plan and adopt as a portion of the Master Plan.
- b. Develop, promulgate and implement regulations for trail connections between woodland areas, where possible.
- c. Develop and implement programs to increase forest cover within developing areas of the Township.
- d. Revise site plan review and development standards in the zoning ordinance as necessary to better protect significant woodlands.
- e. Identify parcels of land that contain high quality woodlands for preservation through a variety of means.
- f. Work with Township Forester to monitor Township properties for invasive species impacting woodlands.

GOAL 2. In addition to areas permanently preserved in State forest lands, conservancies and public ownership, privately-owned woodland areas will be conserved through innovative development techniques that enable an economic use of the land while preserving key features.

OBJECTIVES:

- a. Update the 2005 Natural Features Inventory and expand its scope to become a Greenways/Green Infrastructure Plan and adopt as a portion of the Master Plan.
- b. Evaluate lot dimensional standards and revise the Zoning Ordinance as necessary to permit and incentivize conservation development.
- c. Devise a woodland protection ordinance that reasonably and responsibly regulates removal of trees throughout the township and especially in the lake districts

- d. Develop an invasive species public educational strategy.
- e. Devise a grading ordinance that reasonably and responsibly regulates the alteration of existing topography throughout the Township and especially in the lake districts and in areas with identified high priority natural features to protect natural systems and property values
- f. Develop a green infrastructure plan and related greenway preservation regulations.

GOAL 3. With the exception of State highways and some key primary roads, most roadways in the Township will be rural in character with key views to water and woodlands and/or overlook viewsheds preserved. Promote safe, efficient, and multi modal transportation systems with interconnections where practical and feasible.

OBJECTIVES

- a. Develop standards for viewshed protection through overlay zoning to protect significant viewsheds that have been identified in the Natural Features Inventory.
- b. Coordinate with the Road Commission to protect and enhance significant views and overlooks when new improvement projects are being planned.
- c. Identify potential locations to establish mini overlook parks.

GOAL 4. Enhance roadside corridors for the enjoyment of the public, to reinforce the Township’s focus on natural environments, and to add to the ecological diversity in the Township.

OBJECTIVES

- a. Develop a roadside wildflower/pollinator garden planting program to encourage plantings on private properties to enhance views, provide habitat, and for pollinator protection.
- b. Revisit Roadside Tree Planting Plan to determine if future phases of roadside tree planting on private or public lands is viable.
- c. Evaluate zoning regulations to encourage deep setbacks from primary roads for large scale developments.

GOAL 5. Protect dark skies

OBJECTIVES

- a. Revise local lighting regulations to better protect the dark night skies.

FARMING AND FARMLAND

GOAL 5 Farming and farmland will remain an important part of the Township’s landscape with field crop, livestock and timber operations, niche-based crops, hobby and agri-tourism operations as well as equestrian developments that incorporate open lands and farming practices that are compatible with the expanding residential character of the Township with the goals of preserving farmland for future use, securing local food sources, and to help make agricultural pursuits economically viable and sustainable.

OBJECTIVES

- a. Review the Zoning Ordinance and amend as necessary to liberalize standards that are demonstrated to impede farming and agriculture-related activities.
- b. Develop and implement incentive-based standards to encourage the retention of productive farming.
- c. Revise and enhance current agribusiness regulations to better address agritourism and reflect all potential uses.

- d. Update zoning regulations to discourage conventional subdivisions by revising the Agricultural Conservation Development Option for properties in the Agricultural district.
- e. Coordinate with adjacent communities regarding cooperative zoning and planning for special agribusiness corridors
- f. Promote agricultural production by supporting agribusiness incubators (such as the Long Lake Culinary Campus)
- g. Seek partners and funding to develop a public/private farmer's market.

WATER QUALITY AND LAKEFRONT LIVING

GOAL 6. All the lakes in Long Lake Township will be characterized by clean water and healthy habitat for native plants and animals while serving as sustainable resources for human recreation and use.

OBJECTIVE A1: Create a means to reliably and consistently identify the Ordinary High Water Mark (OHWM) on water bodies throughout the Township.

- 1. The zoning definition of OHWM shall be revised to be consistent with the State and Federal definitions and should reflect that the OHWM follows the shoreline contour.
 - a. The OHWM is the location from which setbacks are measured, the point from which the lake buffer zone begins, and the point of delineation between Township jurisdiction over the uplands, and EGLE jurisdiction over bottomlands.
 - b. The regulations surrounding the OHWM should reflect that this is not a static location and may move over time due to natural water level fluctuations and due to human activities and alterations to the shoreline.
- 2. Devise a system to consistently and reliably identify and document the OHWM in a reasonably timely manner in the process of administering land use permits.

OBJECTIVE A2: Create a clear regulatory framework governing the activities with a potential for altering the shoreline of inland lakes in Long Lake Township.

OBJECTIVE B1: Update zoning to govern activities within the shoreline buffer area

OBJECTIVE B2: Devise a stormwater run-off ordinance to ensure that the velocity, nutrient load, contaminants, and silt associated with storm water on developed shoreline properties is responsibly managed.

OBJECTIVE B3: For all shoreline property owners, promote planting of native plants and appropriate fertilizing methods within the shoreline buffer area through educational materials, recommended plant lists and suppliers, and similar means.

- 1. Preparation of educational materials promoting the protection of existing natural shoreline
- 2. Preparation of educational materials promoting the responsible use of herbicides and pesticides

3. Provide and promote educational resources through the Township's webpage, newsletters, and other means

OBJECTIVE B4: Seek partnerships and funding opportunities to re-naturalize shoreline properties that were previously hardened or cleared of natural vegetation.

1. Provide financial incentives to encourage the protection or restoration of natural shorelines

OBJECTIVE C: Update zoning for the Natural Lakes zoning district to address the following:

1. Revise regulations to be more in line with the Lake Residential zoning district in regards to minimum lot sizes and widths.
2. Revise regulations to create shoreline protection zones of a depth that is found to be as effective, enforceable and defensible.
3. Remove permitting requirements that do not have a regulatory purpose, including the requirement for a vegetative survey

OBJECTIVE D: Devise a woodland protection ordinance that reasonably and responsibly regulates removal of trees in the lake districts

1. Outside of the waterside setback area, protection of a majority of existing trees
2. Provides for a fair and consistent means of monitoring and enforcement

OBJECTIVE E: Devise a grading ordinance that reasonably and responsibly regulates the alteration of existing topography in the lake districts

OBJECTIVE F: Create protections for wetlands and associated zones that are unregulated by the State of Michigan but that are important to maintaining inland lake water quality.

1. Update the Natural Features Inventory to reflect current conditions and to more specifically identify the ecologically sensitive areas that should be protected under such regulations and recommend appropriate wetland local protection regulations.

OBJECTIVE G1: Adopt regulations limiting impervious surfaces permitted on shoreline properties. Such regulations will be written in recognition of the importance of these restrictions balanced against reasonable expectations for the use and enjoyment of property.

OBJECTIVE G2: Provide educational information to shoreline owners regarding the importance and benefits of limiting impervious surfaces.

ACTIVITY CENTERS

GOAL 7. Long Lake Township will include three small and confined activity centers characterized by retail, service and civic uses intended to serve the residents of the immediate vicinity and higher density residential uses all attractively designed to fit the Township's rural character and formed in safe, walkable and inviting communities.

OBJECTIVES

- a. Develop and maintain sub-area plans to define activity center areas in the vicinity of (1) Strait and N. Long Lake Roads; and (2) North Long Lake and West Long Lake Roads, and (3) the Hamlet district near North Long Lake and Church Roads and the general land uses and circulation patterns desired, including vehicle and pedestrian circulation.
- b. Develop public and private water and wastewater utility policies and implementation mechanisms that support and encourage higher density and intensity uses confined to activity center areas.
- c. Amend the Zoning Ordinance to establish activity overlay or other zoning standards to include design, landscaping and land use standards that encourage compact and mixed-use activity center areas including appropriate neighborhood commercial and service uses, public uses and residential uses. These regulations should establish building sizes and scales as well as building and site design guidelines.

GOAL 7A. Long Lake Township will develop a community center in the Strait/North Long Lake/East Long Lake Road corridor characterized by a reimagined multi-modal transportation system that is safer and appropriate to support a fine grain of activities and users. The center will include community-centered and locally-focused businesses, activities, and facilities. The community center will encompass a population center connecting a diversity of housing types. Lastly, the community center will be planned to promote resiliency to prepare for the possibility of continued or future pandemic restrictions, climate shifts, and resource shortages. For these reasons, there will be a focus on resource conservation, healthy lifestyles, local food production, and community gathering opportunities in open-air settings.

OBJECTIVES

- a. Through local zoning, restrict business development to non-chain, appropriately-sized businesses that have amenities or architectural elements that are unique to the Long Lake community.
- b. Work with partners including property owners and road agencies to provide for gateway treatments signifying to the traveler that they are entering the community center and naturally slowing traffic. Treatments will include landscaping, signage, pedestrian and non-motorized facilities. The area will feature reconfigured and improved intersections.
- c. The reconfigured and improved intersections may include re-routing of Strait Road or a roundabout connecting Strait/North Long Lake/East Long Lake Roads. A new primary entrance to Twin Lakes Park through a re-routed Strait Road may connect the community center to public recreational amenities.
- d. The Township will cooperatively work with private and public partners to provide other public amenities within the community center area. This may include a museum, transit mobility hub, farmers market, and expanded recreational activities. The amenities may be located on public or privately owned land, as appropriate.
- e. Develop architectural and site design standards that will reflect the area's history, its unique character, and that will connect the center's businesses and other facilities in a safe and aesthetic manner for all users.

- f. Plan for public facilities and offer incentives for private partners to include a robust combination of open-air facilities such as open-air markets, eating areas, non-motorized connections, and recreational opportunities.
- g. Celebrate the rich history of the area, its agricultural traditions, and the families and individuals that contributed to building the Long Lake community through a variety of means within the community center. These may include historic installations at Twin Lakes, a local history museum, interpretive historic trail and trail connections to other area local-focused destinations, such as The Timbers Recreation Area. This may also include the relocation of historic buildings to public lands within the community center area.
- h. In order to realize the goals of providing for resiliency, relocation of existing roads, and providing access to the mobility options for a larger portion of the Township's population, allow for the relocation and expansion of the existing mobile home park; higher density or smaller footprint of homes, or alternative housing types within the community center area. Develop a new zoning Development Option to accommodate a higher density and a greater diversity of housing types within the North Activity Center area. This Plan supports the overall expansion of the number of mobile home units (or comparable housing) in this area. Further, all efforts should be made to not displace any current mobile home park residents. Relocation services and funds should be extended to current mobile home park residents by the Road Commission if relocation is required.

TRAFFIC AND TRANSPORTATION

GOAL 8. All modes of travel will proceed through and within the Township safely and at reasonable speeds along safe and attractive roadways dispersed through the community offering multiple routes between and among destinations.

OBJECTIVES

- a. Strengthen site plan and subdivision standards to assure that as growth occurs in the community there will be a balance between the requirements of vehicular travel and community desires for a safe and aesthetic environment. Such standards will include requirements for access management, interconnectivity and shared parking, among other provisions.
- b. Continue to strengthen positive ties to the Grand Traverse County Road Commission and MDOT to assure that the needs of the community are addressed in regional transportation decisions.
- c. Develop and implement access control regulations along such primary roadways as North Long Lake Road, Cedar Run Road, Secor Road, and others.
- d. Complete a long-term roadway plan to provide convenient alternative connections between and among areas planned for growth.
- e. Design the plans for the Activity Centers and other significant land uses in the Township to encourage use of public transportation.
- f. Develop a means of promoting connections between neighborhoods that can be replicated throughout the Township.
- g. Work with the Road Commission to study high conflict intersections, including Strait/North Long Lake Roads, Barney/Gray Roads and identify mitigation measures and a means to implement them.
- h. Explore revisions to the Private Road Ordinance to better provide for long term maintenance and capital upgrades, high level of design, update design standards to better coincide with current industry standards and practices, and reevaluate means to encourage and require a more robust, connected road system and anticipate the possible takeover of private roads by a public road agency.

- i. Create educational documents to explain to the public the importance of road connectivity and complete road systems in creating robust networks and dispersing traffic loads.
- j. Address road connection issues in regards to public and private road stubs and providing for future connections between and among public and private roads.
- k. Revise Township regulations and develop policies in accordance with public road agencies to address road issues in conjunction with new development in the Township. This may include the requirement for submittal of traffic studies or the requirement develop public roads in certain circumstances.

GOAL 9. Pedestrian and non-motorized pathways and trails will connect neighborhoods and activity centers, and recreational trails will provide residents and visitors with safe, inviting and non-intrusive pathways to enjoy the community's natural areas consistent with Complete Streets practices.

OBJECTIVES

- a. In conjunction with the Recreation Committee, develop a Township-wide trail route plan incorporating a broad range of non-motorized trail connections between neighborhoods, activity centers, public lands and facilities, within emerging neighborhoods, and in coordination with other regional trail systems, and with the Shore-to-Shore trail.
- b. Identify those potential trail segments that may be appropriate for snowmobile or other motorized recreational uses and prepare standards to minimize conflicts with other uses.
- c. Revise zoning standards to require sidewalks in high density and moderate density residential developments, and to encourage sidewalks or other trails within other residential developments where appropriate.
- d. Work with the Road Commission to plan for, construct, and maintain road sharing for all transportation modes with extended paved shoulders and linear paved trails within the road right of way.
- e. Expand opportunities for biking and walking to enhance the health and sustainability of the Township's population and environment.

UTILITIES AND PUBLIC SERVICES

GOAL 10. Water and wastewater systems will be developed in those portions of the Township currently developed or planned for higher density residential, commercial and activity center uses.

OBJECTIVES

- a. Identify key natural areas that are or may be threatened by a lack of water or wastewater services.
- b. Prepare a preliminary Township utility feasibility plan to identify key areas of the community that will require water and wastewater services and recommend feasible financing approaches for implementation. Recognizing that there may be different strategies to serve different areas of the Township where public water or sewer is warranted (i.e., small distinct public or even private system to serve an area with a high water table and failing systems; expansion of public systems in neighboring jurisdictions to serve high density areas; new or expansion of existing water systems to focus on areas with current and anticipated high levels of development to provide for safe drinking water and better fire suppression, etc.)
- c. Work with utility companies and property owners to better plan for the expansion of natural gas to key areas of the Township where higher densities and commercial uses are prevalent or are planned.

- d. Revise zoning regulations to regulate the locations and design of high voltage transfer stations and substations to the extent allowable.
- e. Continue to monitor the Time of Transfer septic inspection program for compliance level and possible updates to the program. Public outreach to expand the community's awareness of this requirement and its benefits.

GOAL 11. The Township will work with public safety agencies throughout the region to provide rapid and competent response to emergencies and non-emergency situations.

OBJECTIVES

- a. Work with the County Sheriff's Department to expand lake patrol services to control unsafe and unwanted boating behavior.
- b. Develop clear and consistent standards for fire safety throughout all ordinances and in coordination with County agencies where appropriate.
- c. Township to appoint in-house Fire Code enforcement personnel.
- d. Work with County Sheriff or other appropriate agency to coordinate enforcement of county-wide ordinances such as Fireworks, Parking, Noise, and Animal Control.

GOAL 12. The Township will provide year-round recreational facilities and services to foster healthy lifestyles and strengthen neighborhoods.

OBJECTIVES

- a. Maintain on-going coordination between the Planning Commission, the Recreation Committee, the Grand Traverse County Recreation Department and Traverse City Area Public Schools to plan for and implement recreation programs and facilities.
- b. Review and expand subdivision and site condominium ordinances to incorporate standards for such common facilities as parks, play areas and community buildings intended to encourage interaction among neighbors and strengthen the sense of community.

GOVERNANCE AND REGIONAL COOPERATION

GOAL 13. Long Lake Township will take a leadership role in fostering frequent and thoughtful communication both within the Township and between neighboring communities for the benefit of the entire region.

OBJECTIVES

- a. Implement a dialog with surrounding communities to explore joint planning activities on an issue-by issue basis or to develop a combined approach to planning and zoning.
- b. Sponsor community issues forums within the west Grand Traverse area to foster and expand community dialog on key issues.

NEIGHBORHOODS AND SENSE OF COMMUNITY

GOAL 14. Neighborhoods in Long Lake Township will include housing for the entire spectrum of our community arranged in walkable patterns and incorporating civic spaces for social interaction.

OBJECTIVES

- a. Identify impediments to the location of housing to serve elderly residents and develop mechanisms to encourage facilities that allow aging residents to remain in the community.
- b. Review and expand subdivision and site condominium ordinances to incorporate standards for such common facilities as parks, play areas and community buildings intended to encourage interaction among neighbors and strengthen the sense of community.
- c. Update regulations to allow for greater densities on existing residential properties in locations where appropriate and in districts where it is supported by the community and available infrastructure. This may be achieved through allowing accessory dwelling units, guest houses, rezoning, or by similar means.
- d. Update multiple family development standards to require adequate pedestrian facilities, setbacks from parking areas, landscaping, and other design elements to raise the quality of living for residents.
- e. Continue to update the Short Term Rental program to maintain and protect the residential character, and the community from the negative impacts of transient populations. Create flexible systems that can react as the market and regulatory landscape surrounding vacation rentals continues to evolve.
- f. Update zoning regulations to better define and regulate single family dwellings as it pertains to second kitchens and guest suites.

GOAL 15. The culture of the Township will be defined by a positive and participatory spirit that recognizes the value of community and provides strong support for local schools, institutions and events.

OBJECTIVES

- a. Complete an analysis of the formation of a community foundation with the purpose of encouraging and strengthening social networks and support for recreation, community events and open space preservation.
- b. If a community foundation proves feasible, establish a steering committee to implement it, beginning with the formation of a charter and establishment with Section 501(c)(3) tax-exempt status.

ECONOMIC DEVELOPMENT AND TAX BASE

GOAL 16. Businesses in the Township will be clean and economically viable corporate citizens located in well-defined commercial areas and the activity centers in support of the Comprehensive Plan goals.

OBJECTIVES

- a. Develop sub-area plans to define activity center areas in the vicinity of (1) Strait and N. Long Lake Roads; (2) North Long Lake and West Long Lake Roads, and the general land uses and circulation patterns desired as detailed in this Plan.
- b. Prepare a preliminary Township utility feasibility plan to identify key areas of the community that will require water and wastewater services and recommend feasible financing approaches for implementation.
- c. Strengthen ties with the Traverse Bay Area Economic Development Corporation and similar organizations to provide outreach to attract business investment to the M-72 corridor and within the proposed activity centers.
- d. Amend the Zoning Ordinance to establish commercial and industrial site development standards to promote high-quality development that enhances the aesthetic character of the Township while promoting appropriate economic growth.

GOAL 17. M-72 will be characterized by sustainable light industrial growth which is integrated into the area's natural features, aesthetically attractive, and supported by necessary utilities.

OBJECTIVES

- a. Work with the property owners along M-72 and in Solon Township to establish land use and property maintenance standards that help to enhance investment opportunities and property values in the area.
- b. Maintain a high level of code enforcement and administrative follow through with land use approvals and related conditions.

PLANNING AND CODE ENFORCEMENT

GOAL 18. The zoning standards and regulatory requirements of the Township will be clear and fair and broadly understood in the community. All such standards will be carefully structured to support the goals of the Comprehensive Plan while providing the maximum possible flexibility to permit personal choice by residents and business.

OBJECTIVES

- a. Complete the review and update of the Township Zoning Ordinance to conform with the revised Comprehensive Plan and with modern planning and zoning practice.
- b. Develop and implement a program of community education on key land use issues facing the Township.
- c. Analyze the Zoning Ordinance for opportunities to offer incentives in exchange for land use and development activities that exceed minimum requirements.
- d. Maintain a high level of code enforcement and administrative follow through with land use approvals and related conditions.
- e. Maintain a list of non-residential uses in the Township, current tenants in commercial/industrial buildings and their contact information, and regularly monitor for zoning compliance.

GOAL 19. Long Lake Township will provide clear and complete information on local zoning and regulatory requirements to help residents to understand them as fair, appropriate and vital to the future of the community.

OBJECTIVES

- a. Continue and expand the Township's efforts to present a balanced perspective on planning and zoning issues and concerns through the Township Newsletter and website.
- b. Work with TCAPS to provide curriculum and on-site learning opportunities to students intended to foster better understanding of land use and planning issues and concerns.

CHAPTER 8. FUTURE LAND USE PLAN

The Long Lake Township Master Plan establishes general patterns of land use to guide growth and development for the next twenty to twenty-five years. This Plan constitutes a practical and integrated approach to accommodate the impacts of growth suggested by the implications of existing growth patterns. The chief intent is to foster efficient patterns of development that preserve the community's significant natural features and rural character while accommodating the estimated 34 additional households anticipated in the Township by the end of 2026.

The residents of Long Lake Township have indicated that they are content to remain a rural community with limited industrial and commercial service development in specified, well-contained areas. Above all, they desire to retain the natural rolling landscape that offers serene views, wildlife habitat, and a beautiful countryside atmosphere. To honor these values, the community devised a land use framework that seeks to preserve open space and scenic viewsheds, protect surface and ground water quality, provide for economic opportunity and services, preserve the rural aesthetic and recreation areas while identifying targeted areas for contained growth.

The overall purpose of the future land use designations is to guide new development in logical and viable patterns while offering fair, and in some cases, value-enhancing opportunities for development, where reasonable and appropriate. However, since the Township is not currently served with public utilities in most locations, intense growth is not anticipated or desired in most portions of the community.

The following paragraphs describe the future land use designations as illustrated on the Future Land Use Map. Each Future Land Use category is intended to foster a character distinctive of that district and unique to Long Lake Township. Furthermore, it is intended that as the community develops over the next twenty to twenty-five years, a significant share of the natural features existing today will have been preserved.

FUTURE LAND USE DESCRIPTIONS

RURAL PRESERVE

Long Lake Township is blessed with large, rolling tracts of land incorporating significant wetlands and groundwater recharge areas, wildlife habitat, recreation, and forestlands. These lands are a vital element of the Township's pastoral identity and an over-arching focus of this Plan is to preserve such features so that future generations may continue to enjoy the benefits of a well-preserved natural environment. The lands designated as Rural Preserve represent 6,327 acres of Long Lake Township, or about 26.6% of total land area. Of that area, about 1,600 acres fall within the Pere Marquette State Forest.

With much of the Rural Preserve and Recreation area in public or quasi-public ownership, efforts should be directed to protect and provide for additional public stewardship. The lands not in public ownership may experience very low-density development integrated with the key natural features. Conservation design mechanisms should be utilized as development occurs with conservation easements encouraged to assure the perpetual protection of key natural areas. Public utilities are not anticipated in the area, although small community systems may be employed where needed to serve the purposes of the district.

Lands in the Rural Preserve designation host many unique wildlife and ecological corridor areas and these are key to the character of the Township. A central goal of this Plan is the practical protection of those lands that serve as habitat for the wildlife. As development occurs, it is expected that prime ecological corridor areas as outlined in the Long Lake Township Natural Features Inventory will be preserved. Such features of ecological corridor areas may include steep slopes, ridgelines, wetlands, lowland forests, old growth forests, upland openings, critical habitat areas, creeks and streams, and natural meadows. Where considerable or vulnerable wildlife populations are identified, this Plan seeks to connect wildlife habitats and potential corridors to prevent isolation and fragmentation, which ultimately threatens a species.

Uses in the Rural Preserve areas may include single-family dwellings, resource conservation and resource-based production, and natural resource-based recreation. In addition, environmentally friendly agricultural activities that do not permanently and negatively modify the natural landscape of the area are likely to continue. In general, a very low-density development pattern is desired, however, individual parcel sizes may vary significantly and pockets of higher density are likely, depending on local conditions. The primary consideration when considering proposals for development within the Rural Preserve future land use area will be the degree such proposals advance and support the objectives of this Plan. Thus, measures to protect and enhance wildlife habitat, natural features, ecological corridors and rural character are more important than simple residential densities.

Based on the natural features inventory (see Implementation Strategies), the Zoning Ordinance will include one or more zoning districts and development standards that will support these objectives. Where high priority features are present, development activity must be very carefully managed to minimize and mitigate the effect of development on those important features. A part of this will be attention to the form of development and the intensity of development. Development form refers to how construction impacts features while the intensity of development refers to the nature and density of particular uses. With regard to form, on sites with very high priority features, development form may be regulated with standards for impervious surfaces, deep isolation distances, standards for vegetative buffers and similar measures. With regard to development intensity, either very large lots or very small, cluster patterns may be effective. In the former instance, large lots would include standards to restrict the clearing of vegetation and habitat and to regulate impervious surfaces so that the natural environment on each lot is protected. With regard to smaller lots, the standards for development on the lots would be related to protection of features, but large portions of the entire parcel would be permanently preserved in a natural state.

Two important view corridors are found in the Rural Preserve district. These are both located along North Long Lake Road. These are discussed below. In addition, many of the roadways in the Rural Preserve traverse heavily wooded portions of the Township. To maintain the rural and scenic character of these roads, scenic easements of at least one hundred feet in depth should be encouraged. These scenic easements will consist of natural vegetation, as discussed in the Transportation Enhancements section of this Future Land Use Plan.

To balance development objectives with the community values associated with preservation of natural features, conservation development techniques should be enabled and encouraged. Such techniques will not increase the overall density of development in the area. However, to offset the lands consumed by the conservation easement, certain dimensional requirements, such as setbacks and parcel area, may be adjusted.

AGRICULTURAL

Agriculture is an important element of the heritage of Long Lake Township and parts of the Agricultural district may include agribusinesses, active commercial farms, timber stands, or hobby farms. Such uses contribute to the rural character of the Township and are encouraged. It is the intention of this Plan to promote the preservation of agricultural uses and the agricultural sector in the Township and in the region. Supporting this industry helps to provide food security for our region and promotes the preservation of large tracts of land for land preservation and to sustain current-day and future farming opportunities.

The agricultural areas along the M-72 corridor are appropriate for more intensive agribusiness uses. The zoning ordinance should continue to allow expanded agribusiness uses in this area under the M-72 Agribusiness Overlay. This is intended to support the continuation of agricultural cultivation and preservation of large tracts of land for future agricultural production.

The area around the eastern stretches of Noth Long Lake Road, Herkner, and Secor Roads in the east-central portion of the township is also planned to remain in the Agricultural zoning designation with a minimum of 2 acre lots. Although development of this area for residential use may be inevitable, the Township should encourage through zoning large and contiguous set asides of open space and other incentives to retain portions of these holdings in agricultural production.

Large and active farms in Section 10, 13 and 14 are also planned to remain in the Agricultural district as reflected in the Future Land Use Map.

LOW DENSITY RESIDENTIAL

This is the broadest future land use district and it has been established in recognition of the transitional nature of much of the Township. As currently vacant land and areas dedicated for crop production on a year-by-year basis convert to residential development, the character of the Township will change. The purpose of this district is to anticipate and facilitate that transition in an orderly and sequential fashion while preserving the key characteristics of the Township. Areas designated Low Density Residential represent 6,218 acres of the Township, or 26.1 percent of total land area.

Although this area is the largest of the future land use designations, there are some particular attributes of parts of the Township that should be recognized and respected, even as changes occur. The following paragraphs discuss some portions of the Low Density Residential district.

Stricker Lake. The area generally bounded by Cedar Run Road on the north, North Long Lake Road on the south and lying between Bridlewood and Strait is characterized primarily by agricultural enterprises. Farming activities in this area may continue to reflect the Township's agricultural heritage. However, as the agricultural economy changes, it is likely that the nature of farming activity will evolve. It is also possible that the extent of agricultural use will diminish. In addition, a principal attribute of these lands is the rolling meadows and hillsides. These viewsheds should be preserved as development occurs, including views along North Long Lake Road overlooking Coffield Lake and the surrounding hillsides, as well as the pocket of Rural Preserve area adjoining Fern and Page Lakes. Ultimately as agricultural uses decline, residential densities of one to two dwelling units per acre are planned.

Bass Lake. The southeast portion of the Township south of Boone Road is anticipated to develop in continuance of current growth trends. The primary land use is single-family residences on one-acre home sites. The bulk of these lands are developed, but some larger undeveloped parcels exist and should be developed according to conservation design principles. If public utilities should become available to this area, density bonuses may be offered to further encourage the use of cluster development.

Cedar Run and Church. This portion of the Township includes lands north of Long Lake and generally west of Church Road extending to the north to the Rural Preserve district. This area includes some developed lands as well as mature forest, meadow and fallow farm fields. To the greatest extent possible, these lands should develop according to conservation design principles. Clustering, planned unit development flexibility, and open space design techniques are encouraged in this designation to preserve the mature forest and ecological corridor. Within the ecological corridor, a set of performance standards should be implemented to foster the protection of viewsheds and the environment. These may include limitations on clearing, impervious surface limitations, and cluster design. In addition, standards for the maintenance of practical wildlife corridors should be established and incorporated within developments. Lower density developments including hobby farms and recreational uses may be encouraged, as well. Overall densities of about one unit per acre may be anticipated in this area.

West Long Lake area. The area along the west side of Long Lake, extending to the west to the Rural Preserve district is characterized by low density residential development along Long Lake as well as some existing low density developments to the west of the lake. This low density pattern of development is reasonably established and likely to continue. Two ecological corridors extend through this area from Long Lake on the east to the State Forest on the west. Within these areas, additional residential development should be formed in conservation design patterns incorporating techniques to protect these corridors to the extent possible, while enabling low density development at overall densities of about one unit per acre.

Many of the roadways in this area traverse heavily wooded portions of the Township. To maintain the rural and scenic character of these roads, scenic easements or deeper setbacks of at least one hundred feet in depth should be encouraged. These scenic easements will consist of natural vegetation, as discussed in the Transportation Enhancements section of this Future Land Use Plan.

Within each of the areas in Low Density Residential designation, overall densities will be about one unit per acre, although it is likely that pockets of higher and lower densities will emerge to accommodate natural features and to fulfill the other objectives of this Plan. Provision of public or private utility systems will directly impact densities and should be contemplated when needed to enable protection of rural features. Developments occurring on lands classified as Low Density Residential should have direct access to a paved roadway, and should accommodate community utilities. Innovative storm water runoff detention and treatment will be encouraged to protect water quality and features.

Waterfront development within the district should be scaled appropriately for the particular body of water, taking into account the health of the lake or stream. It is clear that some lakes have experienced significant development and are likely to remain attractive places for additional building and recreation. On the other hand, some of the smaller lakes and streams retain a pristine and relatively untouched character. In the former case, development regulations should recognize and encourage existing patterns of development, while applying intelligent and realistic standards that support the long-term viability of the lake. In the latter case, the community has the opportunity to preserve some of the pre-settlement characteristics of the lake or stream and development regulations may be established to protect native vegetation and wildlife and minimize human impact.

MODERATE DENSITY RESIDENTIAL

The Moderate Density Residential designation is intended to accommodate residential options for people of varying age and income levels formed in inviting communities. For example, this designation is expected to serve as a catalyst for high-amenity senior living arrangements and more affordable single-family homes on smaller lots that are incorporated into the area's natural features. The corridor study conducted by the Township for West M-72 and the Township's 1997 Master Plan identified lands in the northeast portion of the Township as appropriate for Moderate Density Residential. This classification comprises 804 acres, or about 4.3% of the Township's land area.

Where public utilities or licensed community systems are not available, the overall permitted density in this area should not exceed two dwelling units per acre. Development may be formed in detached or attached structures. Density may be increased up to eight units per acre if utilities are available. Therefore, development types may include senior living facilities, single-family detached homes or multi-unit buildings developed in clusters, depending on the availability of utilities. Within this relatively intense development form, flexible conservation design mechanisms will be encouraged, as appropriate, to establish open space preserves and neighborhood recreational facilities.

Playgrounds and sitting areas to provide recreational opportunities should be incorporated in new development. Developments should include pedestrian walkways and street layouts should be designed to connect with future developments as they occur. Pedestrian facilities should be incorporated into new developments and should be positioned to join with walkways within future developments.

Main road corridors in this district include Cedar Run, Barney and Gray Road. Where higher density developments emerge, scenic easements of fifty feet or deeper should be dedicated along roadways to filter the view into and out of future developments, as discussed in the Transportation Enhancements section of this Future Land Use Plan. The scenic easement will preserve existing and natural vegetation, and should include pedestrian facilities.

Developments with an overall density greater than two dwelling units per acre should be designed to have minimal impact storm water runoff patterns, existing traffic circulation, rural character, and service demands. As development occurs, the Township will work closely with property owners and developers to ensure an enjoyable living environment for future residents within the Moderate Density Residential designation.

ACTIVITY CENTERS

Long Lake Township is experiencing a rapidly growing population, which results in an increased need for commercial and professional services. While it is the goal of the Township to avoid heavy commercial concentrations or development patterns that would fundamentally alter the character of the community, modest scale developments intended primarily to serve local residents are desired. Such developments reduce the need for some automobile trips to the City and other shopping areas in the region, and may offer walkable shopping opportunities when linked to neighborhoods with safe pathways and sidewalks. This Plan seeks to establish two mixed-use and small-scale community villages, accounting for 210 acres, or approximately 1.1% of the Township's land area.

Within the activity centers, uses may be higher density residential, small-scale commercial, or a mixture of the two. These service areas will generate less automobile traffic than a conventional strip commercial form;

structures and buildings will be designed and oriented toward the pedestrian rather than the automobile. Such uses as fast-food, chain retailers, and drive-through commercial establishments will not be encouraged. A vital element of the activity centers will be safe and convenient pedestrian access. Residential uses in the activity centers will be similar to that described in the Moderate Density Residential description. Examples of uses include coffee shops, beauty shops, community banks, restaurants, single-family detached homes developed in clusters or in multi-unit buildings, and farmer fruit markets. Individual stores will generally not be greater than 5,000 square feet in floor area.

These activity centers will become gathering places in the community. Uses, facilities and activities that may encourage neighbor interaction, such as a pavilion for a farmers market or other outdoor events, sidewalks, bicycle parking, and a landscape theme, are highly encouraged.

In addition, the activity centers will offer another residential alternative for senior citizens and young families. They will anchor existing developed areas of the Township and provide convenient services and other low volume destinations to serve the growing population and visitors to the popular Long Lake. The activity centers will be designed to complement existing natural features. The Township will develop separate subarea plans that will more closely examine these activity centers. These Subarea Plans will address traffic, public improvements, safe pedestrian circulation and facilities, specific uses and the appropriate scale and building types for each activity center.

Three Center areas are anticipated. These will generally be similar in nature, although each will form a unique identity, as described below.

“West Activity Center.” The “West Activity Center”, located at West Long Lake Road and North Long Lake Road, currently includes a machine shop, veterinary clinic and other service uses. A large portion of the district was recently committed to use as a self-storage facility. It is anticipated that this Activity Center will develop with commercial uses and services that generate less traffic and activity but will provide logical connections, services, and enhancements to nearby natural areas and existing neighborhoods. An auto service station and convenience store are among acceptable uses for this area, provided that the development is small-scale and does not pose a traffic concern as designed.

“North Activity Center.” The “North Activity Center”, located generally along the intersection of North and East Long Lake Roads and Strait is likely to be the largest. It is anticipated that it will include a broader range of retail and service facilities than the other center. The current pattern should be continued and expanded somewhat. The existing residential uses, Moomer’s Ice Cream and Fresh Coast Market are good examples of the type of growth that is anticipated. In addition, additional residential uses are desired to support existing and future commercial uses. Because of traffic safety concerns in this area, the North Activity Center may be poised to see significant public investment in infrastructure along with new private investment.

The North Activity Center will be characterized by a reimagined multi-modal transportation system that is safer and appropriate to support a fine grain of activities and users. The center will include community-centered and locally-focused businesses, activities, and facilities. The community center will encompass a population center connecting a diversity of housing types. Lastly, the community center will be planned to promote resiliency to prepare for the possibility of future pandemic restrictions, climate shifts, and resource shortages. For these reasons, there will be a focus on resource conservation, healthy lifestyles, local food production, and community gathering opportunities in open-air settings.

The Township should accommodate the expansion or redevelopment of the mobile home park located on Strait Road. The park is aging and is currently not a permitted use under zoning. The park is in the heart of the planned Activity Center/North Activity Center. Higher residential densities are appropriate here to support the expansion of services and public facilities in this area. Allowances for the redevelopment or reasonable expansion of the mobile home park or the addition of other high density residential types is appropriate for this location.

“Hamlet Activity Center.” The Hamlet future land use designation is intended to recognize an historic settlement area that continues to serve as a hub of activity and services to nearby residences. The hamlet activity center is a more diminutive development pattern than the other planned Activity Centers. Often, a hamlet is located at an historical center of activity or at a rural crossroads. A hamlet is often a concentration of uses that may include a cluster of homes, small businesses, public facilities, and gathering places such as churches. It is not uncommon to see an upcoming hamlet-style settlement signaled by a reduction in posted road speeds, a cross roads, and an uptick in activity and pedestrians.

Many local examples of hamlet settlements are sprinkled through the region. Some go largely unnoticed as their histories are forgotten and the last reason for them to be visited and recognized as a hub -- such as the existence of a granary, railroad station, or post office -- have fallen out of use. Some of the region’s examples of hamlets include Mayfield and Summit City (both in Paradise Township), Mapleton and Bowers Harbor (both in Peninsula Township), Bendon (in Inland Township), Glen Haven (now part of Sleeping Bear Dunes National Park), or even the ghost town of Yuba (in Acme Township).

Long Lake Township has two historic settlement areas. One of these is Cedar Run, located near the intersection of Cedar Run Road and Cedar Valley Road in Section 6 of the Township just east of the Benzie County line. A railroad station, a store, and a post office were located here. Today there is almost no remnant of this center of activity except for the nearby Long Lake Historical Building (once a one-room school house). A second settlement in Long Lake was sometimes referred to as Linwood or Neal. A church (now the location of the Long Lake Friends Church), former township hall, and post office were located here in the area of present-day Long Lake Grocery. The post office was known as the Neal Post Office-- as Long Lake itself was once called Neal Lake. Linwood Cemetery takes its name from the name of the settlement.

Today in the Linwood settlement area, Linwood Cemetery is the site of annual community ceremonies; the Friends Church is a thriving community place of worship; Long Lake Grocery is frequented by locals and visitors for convenience store items, prepared food, and fuel; the township-owned Taylor Park is a popular picnic spot and beach; and the adjacent tourist home/bed and breakfast is one of two surviving tourist cottages businesses on Long Lake still operating as a cottage rental business. (Some have been converted to condominiums with each cottage under separate ownership, some have been replaced by a new single home or a family compound not rented to visitors.)

The Linwood settlement area is considered a hamlet and is designated under this plan as one of the three Activity Centers, but with a distinct designation – Hamlet Activity Center. The area is considered a hamlet as it has many of the markers and characteristics of a hamlet:

- Historic significance as a settlement
- Location of community gathering places (Taylor Park, Long Lake Friends Church, Linwood Cemetery)
- Commercial uses (Long Lake Grocery, Buttleman family tourist cottages)
- Limited, but essential, retail services (retail grocery, food, liquor, fuel)
- Cross roads (Church and North Long Lake Roads)

- Noticeable increase in activity and pedestrians
- Decrease in posted speed limit
- Concentration of residences

In 2019, the Township created the “Hamlet Overlay District” in the Township’s zoning ordinance. The overlay district allows for the legal continuation of the existing range of uses in this area and provide for expansions of, changes in, and creation of new non-residential uses within its boundaries while protecting and enhancing the residential character of the area. The purpose of the Hamlet Overlay District reflects the need to:

- Provide for a small scale and pedestrian oriented commercial and residential center integrated into the existing community;
- Enhance an existing focal point of activity;
- Promote efficient utilization of land and existing buildings and businesses;
- Take advantage of the locational attributes Long Lake;
- Maintain the existing residential character of the area;
- Reflect the residential building vernacular typical of a recreational lake community;
- Allow for the reuse of existing residential structures for non-single-family residential uses within a well-defined set of standards and restrictions;
- Allow for economic viability of the district in part through the expansion of and establishment of new non-residential businesses and activities
- Protect the health, safety, and welfare of the community.

COMMERCIAL AND INDUSTRIAL

The Commercial and Industrial future land use designation is intended to provide for employment and goods and services to serve the broader Long Lake Township community. This area is comprised of about 168 acres, or just under one percent of the Township’s total land area. This designation is confined to the south side of M-72 and is bounded by Rural Preserve lands. Existing uses in the vicinity and the West M-72 corridor study support this designation. The area is not currently served with public utilities, and such service is not anticipated or desired during the life of this Plan. Therefore, the nature of commercial uses in this district will be constrained by a lack of such service.

Commercial and industrial buildings will generally be larger than those of the Activity Centers, though retail and commercial uses are not anticipated to be of a regional scale, competing with similar uses in Garfield Township or Traverse City to the east. Uses may include professional offices, contractor’s yards, low intensity manufacturing, wholesaling, warehousing, and similar uses.

As the area develops, quality building and site design would contribute to improved aesthetics in the area. Site design criteria should include signage, landscaping, lighting, site utilization, access control, and building façade design. Where possible, loading areas should be located to the rear of buildings. Outdoor storage should be minimized and where permitted, buffering measures should be implemented. Sides and front facades of the buildings should be designed with high quality building materials such as stone, brick, and other natural materials.

Landscaping should be used to mitigate the isolating effects of large parking areas and to augment the natural impression found in Long Lake Township. Landscaping and trees should be planted around the perimeter of the area to help buffer the uses. Access points in the Commercial and Industrial area will be coordinated with

neighboring uses to minimize traffic conflicts and increase safety. It is anticipated that new roadways will be formed within the district to enable efficient development of the entire depth of the area and to avoid multiple access points on M-72.

TRANSPORTATION ENHANCEMENTS

In addition to the pastoral assets of rolling farmland, deep forests, beautiful lakes, meadows, and hillsides, Long Lake Township's curving and undulating roads generate exceptional views. A goal of this Plan is to preserve those priceless views, since they are a distinctive characteristic of the community.

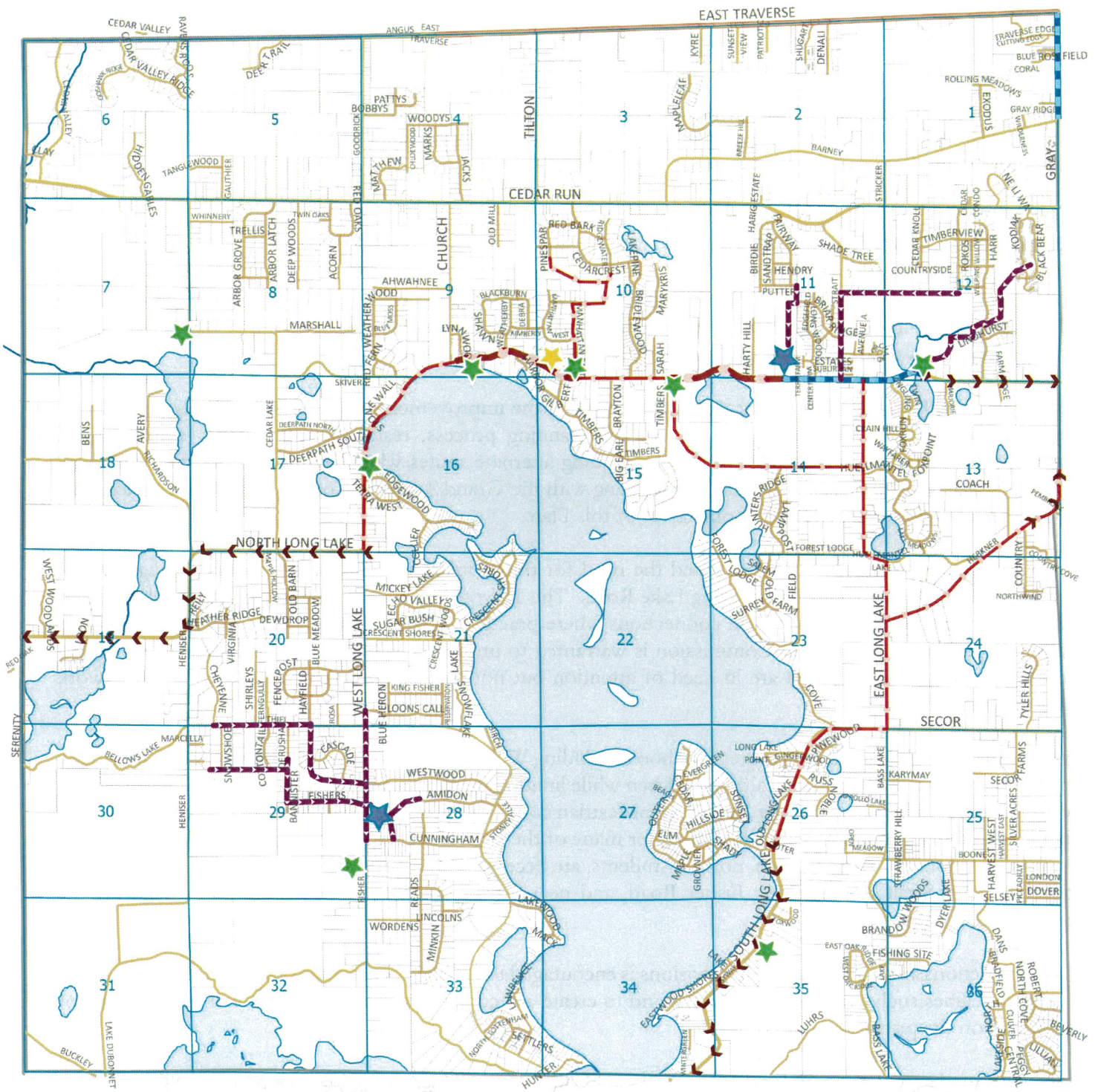
Historically, the Township has not proactively anticipated the improvement of roadways in the community by way of a Master Plan. However, throughout the planning process, residents and officials expressed the importance of protecting viewsheds and even providing alternate routes where safety or other concerns were expressed. Long Lake Township anticipates working with the Grand Traverse County Road Commission, and developers to meet the transportation objectives of this Plan.

The pace of development has demonstrated the need for traffic infrastructure enhancements throughout the Township but especially along North Long Lake Road. The Township has worked with private developers and the Road Commission to provide road connections where practical to strengthen the secondary road network. More cooperation with the Road Commission is warranted to improve roads including Barney, Forest Lodge, and Crescent Shores Roads that are in need of attention but not part of the County's primary road network improvement program.

Providing safe walking and biking routes to schools including Westwoods Elementary and Long Lake Elementary is a way to enhance the lives and health of children while limiting the number of vehicles on the roadways during pick up and drop off peaks. Further, providing pedestrian connections that will help students get to West Senior High in neighboring Garfield Township will offer many of the same benefits to the community. Safe crossings at several locations for all pedestrian, not just students, are becoming a higher priority. Locations such as North Long Lake and Strait Roads, along Fisher Road, and near Taylor and Gilbert Parks are all in need of safe pedestrian crossings.

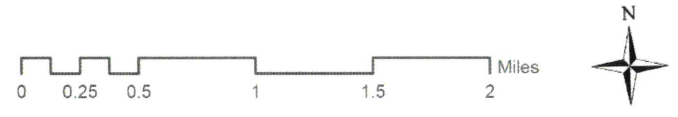
Road connections among residential subdivisions is encouraged to offer alternate routes for short trips and access to public facilities such as schools and parks, and to create a secondary road network that will reduce some of the burden on the primary road networks.

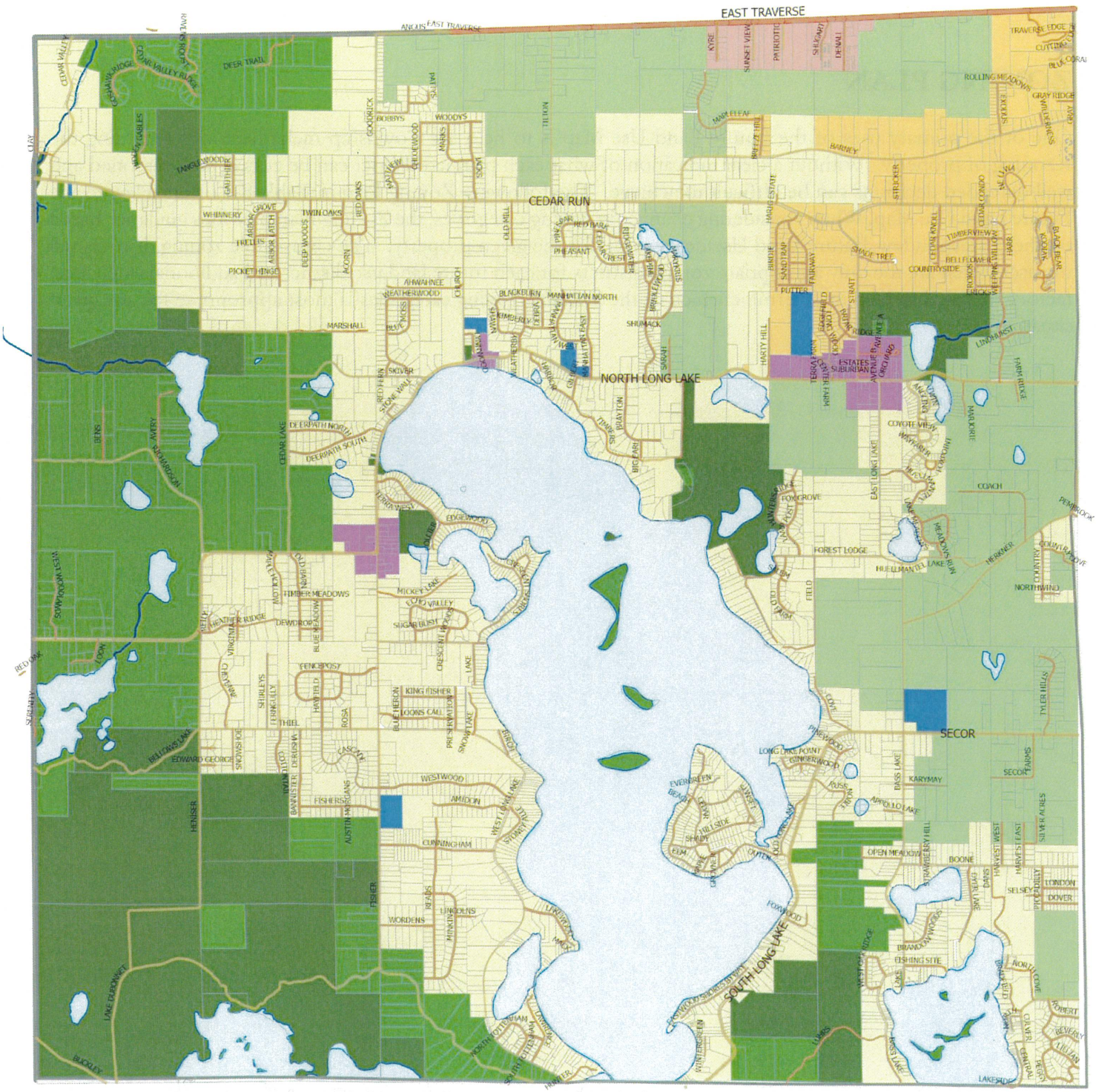
Along with road connections on local roads that would allow for walking and biking, the Township should work with property owners, developers, the Road Commission, and the TCAPS community to provide safe routes to Westwood and Long Lake Elementary Schools from surrounding subdivisions.











- ★ ★ ★ Points of Interest: School/Park/Government
- Gateway/Major Road Improvements
- Multi-Modal Trail - Phase 1
- Multi-Modal Trail - Phase 2
- Safe Routes to School (some existing/informal)
- ➤ Regional Trail Connections

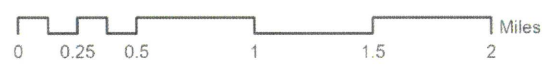
Conceptual Road and Trail Plan





- | | | | |
|---|------------------------------|---|--------------------------|
|  | RURAL PRESERVE |  | ACTIVITY CENTER / HAMLET |
|  | AGRICULTURAL |  | GENERAL BUSINESS |
|  | LOW DENSITY RESIDENTIAL |  | INSTITUTIONAL |
|  | MODERATE DENSITY RESIDENTIAL |  | RECREATION |

Future Land Use



ZONING PLAN

One of the primary uses of the Future Land Use Map is to help the Township make decisions regarding the rezoning of property. Without a clear indication of what each planned district can be zoned, well-reasoned and well-defended decisions can be difficult to achieve. The following Zoning Plan in Table 8-1 offers a key to the Future Land Use Map. When considering changes in zoning categories, the Zoning Plan provides guidance based on the corresponding Future Land Use designation for the given property. The compatible zoning districts tell the user which are the only appropriate zoning districts for each future land use district and additional evaluation factors are listed to help to determine which of the available zoning categories is most appropriate for any given situation.

TABLE 8-1 ZONING PLAN

Future Land Use District	Compatible Zoning Districts	Evaluation Factors
Low Density Residential	Low Density Residential Lake Residential Agricultural	<p>Areas with direct frontage on Long Lake, Bass Lake, Dyer Lake and Coffield Lake to remain as Lake Residential</p> <p>Areas currently zoned Low Density Residential to remain in this zoning category</p> <p>Areas currently zoned Agricultural may be rezoned Low Density Residential in this Plan District</p>
Moderate Density Residential	Moderate Density Residential High Density Residential Low Density Residential	<p>Areas currently zoned High Density Residential to retain this zoning and may be changed to Moderate Density Residential with owner request or agreement</p> <p>No additional areas will be upzoned to High Density Residential</p> <p>Areas currently zoned Moderate Density Residential to remain in this zoning classification or downzoned at the request of the owner</p> <p>Areas planned for Moderate Density Residential but currently zoned a less intensive (Low Density Residential or Agricultural) zoning category shall only be zoned Moderate Density Residential if and when the location is served with appropriate public services including adequate road capacity or a public water source</p> <p>Areas with access to Strait Road that are planned for Moderate Density but currently zoned Low Density Residential or Agricultural shall not be zoned Moderate Density Residential until such time as the North Long Lake Road/Strait/East Long Lake Road intersections have been upgraded with a roundabout or equal traffic solution has been completed or funding has been committed</p>
Activity Centers Hamlet Center	Low Density Residential Local Commercial Moderate Density Residential	<p>Areas in the Hamlet Center plan district will retain the underlying zoning designation and <u>shall be</u> subject to the standards and restrictions of the Hamlet Overlay zoning district</p> <p>Areas planned for Activity Center may retain the underlying zoning designation and <u>may be</u> developed under the Village Center Planned Unit Development Option as allowed in the zoning ordinance</p> <p>Those areas in the Activity Center plan district that are currently zoned General Business may retain this zoning designation or may be rezoned to any listed compatible zoning district. No other areas in this plan district will be rezoned to General Business</p> <p>Other areas in this plan district may retain their existing zoning, or may be rezoned to any of the listed compatible zoning districts.</p>

Commercial & Industrial	General Commercial	All areas within this plan district shall retain the current zoning designation of General Commercial
Rural Preserve	Conservation Recreation Agricultural Low Density Natural Lakefront	Areas in this plan district zoned Conservation Recreation shall retain this zoning designation Areas with other zoning designations in this plan district may be “down zoned” to a less intensive compatible zoning district or remain as currently zoned. Areas zoned Natural Lakefront shall retain this zoning designation
Agricultural	Agricultural Conservation Recreation	Properties within this plan district may retain existing zoning or be rezoned a compatible zoning designation

CHAPTER 9. IMPLEMENTATION

For a Master Plan to truly impact growth and development, it must be followed and carried out. The following strategies are established to implement the goals and objectives and land use recommendations of this Plan. It is recognized that many strategies will be long-term in nature and that many entities in addition to Long Lake Township will need to cooperate in order to fully implement this Plan. The Township’s role is that of facilitator for some of the strategies listed in this Chapter.

Primary responsibility for implementation of the Master Plan rests with the Long Lake Township Board, the Planning Commission, and the Township staff. In order for the Future Land Use Plan to serve as an effective guide for continued preservation and growth in Long Lake, it must be implemented. This is done through a number of methods. These include ordinances, programs, and administrative procedures, which are described in this Chapter. Some of the implementation strategies require significant public and private investment. Some are small enough to be implemented immediately. Others will take time. All are important, as they contribute individual elements that will help build the overall vision expressed by the Plan.

These implementation steps are taken from Chapter 7 Goals and Objectives. This implementation Chapter serves to summarize and organize a clear list of actions to be taken by the Township in the near and far term to realize all components of the Plan. For more detail on any of these tasks, see Chapter 7.

IMPLEMENTATION TASKS

TASK OBJECTIVES 1: ZONING ORDINANCE UPDATES

Phasing of Objectives	a. NATURAL FEATURES PROTECTIONS:
Phase 3 – after completion of Natural Features Inventory	i. Create shoreline buffer protection standards (primarily in fragile areas identified in the update to the Natural Features Inventory)
Phase 4	ii. Devise development standards to incentivize roadside tree plantings and pollinator gardens
On-going	iii. Continue to prohibit artificial bodies of water , such as lagoons, canals, basins, and ponds, when near natural bodies of water in Lakefront Residential and Natural Lakefront zones and strengthen ordinance as necessary.
Phase 3 – after completion of Natural Features Inventory	iv. Evaluate site plan review and related standards to better protect identified high quality woodlands and related natural features for new developments, especially in target areas identified in the update to the Natural Features Inventory.
Phase 3	v. Enhance zoning standards to promote and encourage conservation development patterns , especially for target areas identified in the natural Features Inventory.

Phase 1.A vi. Revise local lighting regulations to better **protect the dark night skies.**

Phasing of Objectives

b. HOUSING

Phase 1.A

i. **Revise dwelling unit definitions and standards** to better define and regulate single family dwellings as it pertains to second kitchens and guest suites, to include better related definitions (wet bar, guest suite, etc.) and to include a comprehensive process to review and enforce these regulations.

Phase 1.B

ii. **Update multiple family development standards** to require adequate pedestrian facilities, setbacks from parking areas, landscaping, and other design elements to raise the quality of living for residents.

Phase 1.B

iii. **Revise Article 18 development options** as follows: lower minimum acreage requirements, if necessary, add incentives for sidewalks/trails, add incentives for deeper setbacks, roadside tree plantings or pollinator gardens.

Phase 1.A

iv. Update ordinance to **allow for guest homes/accessory dwellings/tiny homes** in appropriate locations with rigorous standards to protect the single-family residential character of the Township while expanding housing choice and providing missing middle housing opportunities. Such units not to be available for short term rental use.

Phase 2 – after Subarea Plans are Complete

v. Update regulations to **allow for greater densities** on existing residential properties in locations where appropriate and in districts **where it is supported by the community and available infrastructure**, especially within the Activity Centers identified in this Plan, primarily the North Activity Center area. This will only be available at the time that appropriate infrastructure (including road capacity and safe intersections) become available to serve the higher densities.

Phase 1.A

vi. Revise local lighting regulations to better **protect the dark night skies.**

Phase 1.B

vii. Revise regulations to **support a more equitable, sustainable, and affordable housing stock.** This may include preapproved house plans for accessory dwellings; easier and faster development approval for uses by right; and removal of regulations that present roadblocks and raise development costs.

Phase 2 – after Subarea Plans are Complete

viii. **Promote through zoning varied housing types, sizes, ownership/rental opportunities** to help address the housing crisis in the Township and throughout the region.

Phase 2 – after
Subarea Plans are
Complete

- ix. Revise regulations to allow for the **relocation and expansion of the existing mobile home park**; higher density or smaller footprint of homes, or alternative housing types within the North Activity Center area. Develop a new zoning Development Option to accommodate a higher density and a greater diversity of housing types within the North Activity Center area.

Phasing of
Objectives

c. COMMERCIAL

Phase 3

- i. Update site development standards for the **commercial and industrial districts** to promote high-quality development that enhances the aesthetic character of the Township while promoting appropriate economic growth.

Phase 3

- ii. Revisit the regulations for the **Local Business District and the Village Center PUD** option to promote locally-owned, locally-focused businesses, open air use components (such as outdoor eating areas, open market areas, passive recreation areas, etc.) building design, landscaping, land uses, and building sizes that are consistent with the goals and objectives of this Plan as outlined in Chapter 7.

Phasing of
Objectives

d. AGRICULTURE

Phase 3

- i. **Update Agricultural Conservation Development Option** to better encourage use of this option and preservation of large agricultural tracts for areas zoned Agricultural under development pressure.

Phase 3

- ii. **Update agribusiness regulations** to, at a minimum, include revision of the 50% rule, standards for farm stays, add potential agribusiness uses, and better define tasting rooms and restaurants.

Phase 3

- iii. **Update regulations to support the development of agribusiness incubators** such as public and private farm markets, commercial kitchens, and specialized commercial.

Phasing of Objectives		e. MISCELLANEOUS
Phase 4	i.	Revise, if necessary, the means of consistently identifying the ordinary high watermark such that all surveyors are aware of how the Township defines this location in the process of administering land use permits.
Phase 3 – after completion of Natural Features Inventory	ii.	Revise Natural Lakefront zoning district regulations to be more consistent with the standards of the Lake Residential zoning district while still continuing to protect the fragile environments associated with these lakes.
Phase 1.A	iii.	Evaluate and update standards for commonly used parts of the Zoning Ordinance for practicality and reasonableness as well as to reflect changes in the marketplace or acceptable standards. This may include requirements for fencing, accessory buildings, gazebos, pergolas, wood storage, decks, and overhangs.
Phase 4 – after Trailway Plan is Complete	iv.	Update regulations to require development of trailways in conjunction with new development as called for in the Trailways Plan.

TASK OBJECTIVES 2. AMENDMENTS TO OTHER GENERAL TOWNSHIP ORDINANCES

Phasing of Objectives	
In process	a. Amend private road ordinance to limit number of units to be served by a private road, update road design standards, and revise administrative process
On-going	b. Evaluate the Time of Transfer Septic Inspection Program for any needed changes to the standards or the implementation of this program.
On-going	c. Continue to evaluate and update the Short Term Rental Ordinance and program to reflect changes in the industry, to maintain and protect residential character of existing neighborhoods, and possible changes in state law.

TASK OBJECTIVE 3. REFINE ADMINISTRATIVE PROCESSES

Phasing of Objectives	
On-going	a. Maintain a high level of code enforcement and administrative follow through with land use approvals and related conditions
On-going	b. Maintain a list of non-residential uses in the Township, current tenants in commercial/industrial buildings and their contact information, and regularly monitor for zoning compliance
Phase 4	c. Appoint a Fire Code Plan Reviewer/Inspector and develop clear point of contact and standards for new development. Create Short Term Rental Safety Regulations/Checklist and implement Inspections of these units by Fire Department personnel

TASK OBJECTIVE 4. DEVELOP NEW OR UPDATE OTHER PROGRAMS/PLANS

Phasing of Objectives	
In Process	a. Update the Natural Feature Inventory and add a Greenways/Green Infrastructure Plan to become a component of the Master plan. This plan should include the following: <ul style="list-style-type: none">i. Recommendations for a Tree Replacement/Woodland Protection ordinance that reasonably and responsibly regulates removal of trees throughout the township on a lot-by-lot basis and especially the lakes district. This should be tied to the areas of greatest importance to the high priority fragile natural systems identified in the Natural Features Inventory.ii. Invasive species action program parametersiii. Recommendation for specific shoreline buffer standards in the lake residential areasiv. Recommendations for updates to the Roadside Tree Planting programv. Outline for public educational outreach program including invasive species/native species planting recommendationsvi. Recommendations for grading control regulations, especially targeted for the areas identified in the Natural Features Inventoryvii. Recommendations for local regulatory framework to protect wetlands that are not regulated by the State but are important to maintaining inland lake water quality and supporting identified high priority natural areas.viii. Recommendations for restrictions on the locations and number of impervious surfaces especially within high priority natural areas and other sensitive environments. This should become part of the storm water control/grading ordinance addressed below.

In Process

- b. Develop a **Storm Water Control/Grading ordinance** to include
 - i. Specific standards for storm water controls for new developments and a process to administer these regulations.
 - ii. Specific standards for individual storm water plans for challenging residential lots and a clear process to require these plans and how to administer them.
- i. Requirements, standards, and process for grading permits for development parcels and individual lots, especially for areas of concern due to topographic conditions, near wetlands, or for shoreline properties. These areas of concern will be as identified in the update to the Natural Features Inventory.
- ii. Limitations on impervious surfaces and required storm water controls for sensitive areas identified in the Natural Features Inventory.

Phase 4

- c. Coordinate with adjacent communities to develop an **M-72 Agricultural/Agribusiness Corridor** planning effort. This will help to coordinate the allowed uses; it will consider regional impacts on traffic and quality of life; and it will help to promote the region's agricultural industry.

Phase 5

- d. Update the Long Lake Township **Watershed Plan**. This document will not become part of the Master Plan, but elements of it may be adopted into the Master Plan as appropriate. Conduct a Shoreline Survey as part of the Watershed Plan that serves as a benchmark and that will be routinely updated. The Watershed Plan will inform future updates of this Plan and will help to identify necessary activities, regulatory changes, and granting opportunities to protect the Long Lake Watershed.

Phase 1

- e. Develop an **Infrastructure (Utilities/Public Water/Sewer) Plan**, this will become a component of the Master Plan. Infrastructure updates will be targeted for the growth areas identified in this Plan and to protect the fragile environments as identified in the update to the Natural Features Inventory.

Phase 4

- f. Develop a separate **Transportation Plan** as a component of the Master Plan, to include
 - i. Corridor Design Plan that addresses the type of road improvements and style/design of roadside treatments that are appropriate for certain special areas. This will be part of the Subarea Plans addressed above.
 - ii. An **Access Management Plan** for strategic corridors including North Long Lake Road, Gray Road, and M-72 East Traverse Highway
 - iii. Recommendations for providing needed connections between neighborhoods in conjunction with new development. These recommendations to be general but also to address key locations where road connections should be sought.
 - iv. Recommend when traffic studies are required in the evaluation of development proposals, what information should be required, and how the Township can act on the information provided.

- In process
 - g. Update the Township **Recreation Plan** to include specific elements called for in this Plan
 - i. Enhanced recreational programming at specific parks and in conjunction with Township partners including the Boy Scouts, the Long Lakers senior group, the Grand Traverse Regional Land Conservancy, and others.
 - ii. Explore the possibility of creating a Farmers Market through a public/private partnership.

- In process/complete
 - h. Develop a **Cemetery Plan**

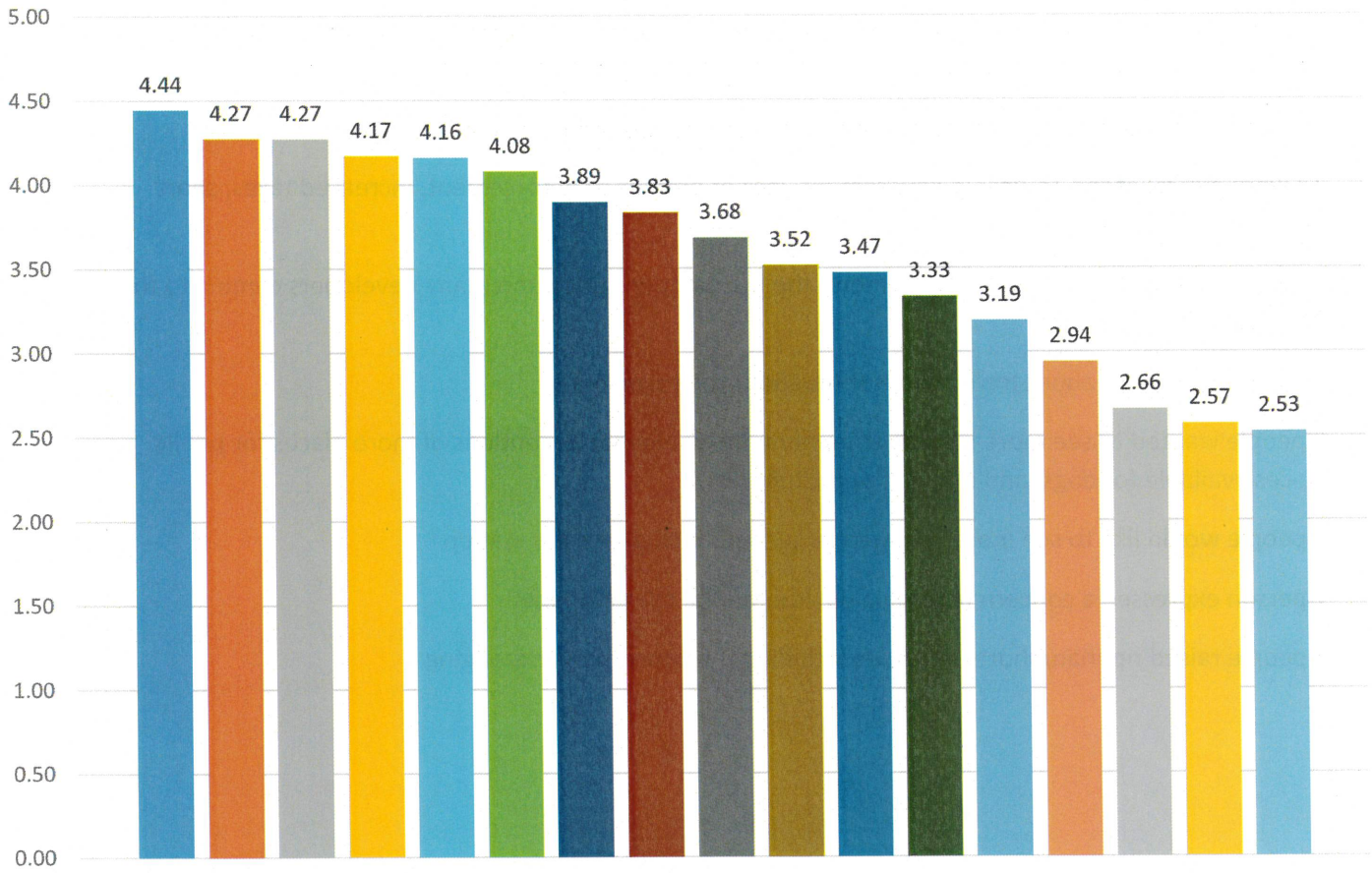
- Phase 2
 - i. Develop a **Trailways/Non-Motorized Plan** incorporating a broad range of non-motorized trail connections between neighborhoods, activity/hamlet centers, public lands and facilities, within emerging neighborhoods, and in coordination with other regional trail systems, and with the Shore-to-Shore trail.

- Phase 1.A
 - j. Develop **Subarea Plans for the three Activity Centers**, especially the North Activity Center and update zoning as necessary to implement Subarea Plans.

- Phase 5
 - k. Create public education outreach program(s) and create incentive programs to address the following
 - i. Invasive species education/native plantings recommendations
 - ii. Benefits and means of protecting natural shorelines
 - iii. Shoreline naturalization education and incentive programs/grants/or partnerships
 - iv. Limitations of fertilizing, especially within areas that can impact sensitive natural features
 - v. Benefits of limiting impervious surface areas within these sensitive areas
 - vi. The importance of having a robust, redundant, interconnected, and multi-modal transportation system to address the need to disperse traffic, provide for adequate emergency access, and provide for a safer secondary network for biking and walking to schools, parks, and between residential neighborhoods.

APPENDIX 1: OPINION SURVEY RESULTS

Question #2: How would you rate the following in Long Lake Township
(1: "poor" 5: "outstanding")



- The woods/natural areas 4.44
- The countryside/farms 4.27
- The lakes/beaches 4.27
- The people/community 4.17
- Parks/public lands 4.16
- Schools/institutions 4.08
- The business community/owners 3.89
- The neighborhoods 3.83
- Community gathering locations 3.68
- Township government 3.52
- Business services (grocery, fuel, etc.) 3.47
- Housing choices 3.33
- Style of recent development 3.19
- Traffic levels/circulation 2.94
- Housing affordability 2.66
- Availability of biking lanes/trails 2.57
- Availability of public transit 2.53

There were additional comments associated with Question #2. Below is a summary of these comments.

24 responders expressed concern about lack of safe biking lanes and trails

9 respondents were concerned about the lack or loss of community due to development, the style of development, or loss of community due to an increase in short term rentals

18 would not like to see a dollar store or other large chains come to the Township

12 were critical of the Township government, lack of ordinance enforcement, increased taxes, short hours, or similar concerns

4 were concerned about overdevelopment, the loss of open space, too many developers coming to the Township

12 were concerned about traffic issues throughout the township

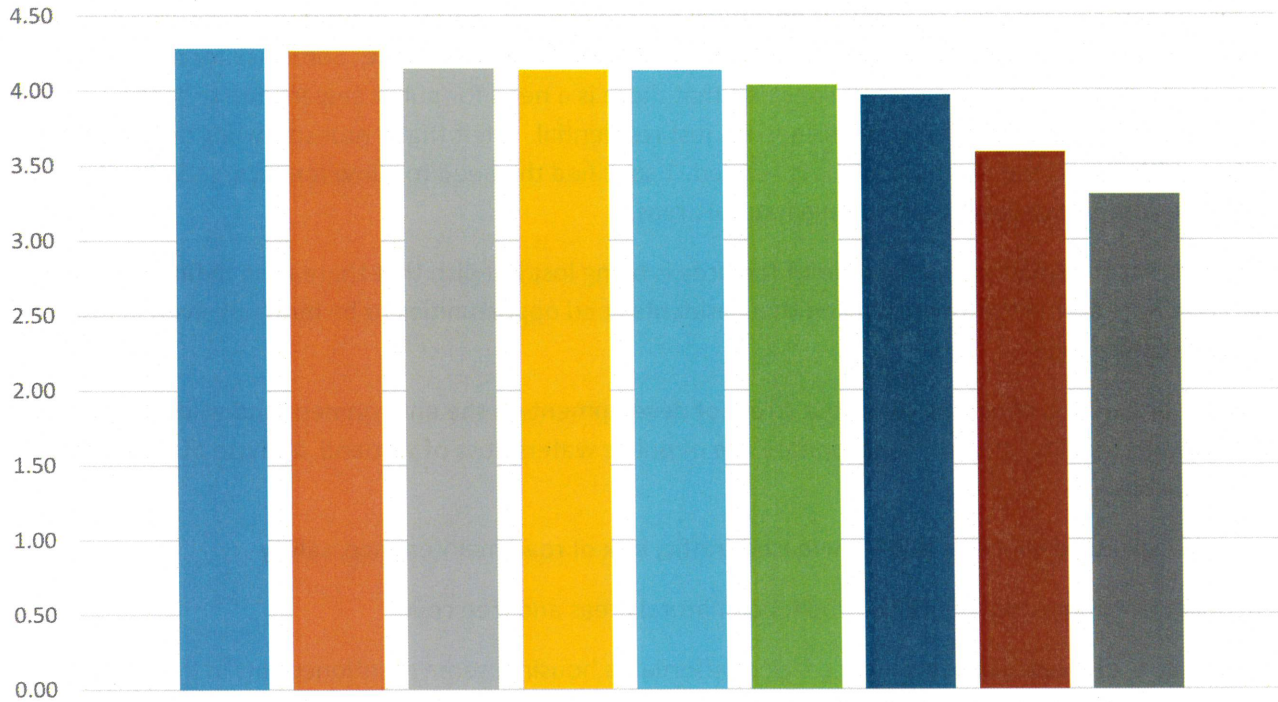
6 people wanted to see more park development, including many mentions of more places for public places available for dogs, and disc golf opportunities

2 people would like to see more commercial services including a gas station

1 person expressed a concern regarding environmental contaminants

3 people raised riparian/shoreline issues including the concern over dredging

Question #3 - As the township grows, what are the biggest threats to Long Lake Township's future?
 (1="low threat" 5= "significant threat")



	Average Score
Traffic impacts	4.28
Stress on natural ecosystems	4.26
Loss of open spaces	4.15
Other (explain in comments below)	4.13
Loss of small town character	4.13
Noise/pollution/light pollution	4.03
Loss of productive farmland	3.97
Impact on emergency services	3.59
Impact on schools	3.30

There were additional comments associated with Question #3. Below is a summary of these comments.

29 people noted a concern that chain stores, especially a dollar store, will change the character of the community. 1 was concerned about marijuana dispensaries. 1 noted that there should be lakeside commercial services (a marina, a restaurant) because this is a lake community.

20 responders said that the township is becoming overdeveloped. Some call for more measured growth and others noted that the infrastructure is not keeping up with development. Some ask for more open space development projects. 1 specified that there is a need for public sewers due to septic system failures. 1 called for no new businesses, just residential. 1 felt that a non-sprawling development pattern with connected neighborhoods is needed. 1 specified the need to allow for accessory dwellings and more compact development to save natural areas.

12 noted that the small town character of the area is being lost but also that there is no defined character or center in the Township and that residents need opportunities to be more involved in order to create community

8 people brought up concerns about the stress of development on the environment and wildlife: air quality, water quality, over or inappropriate use of public waters, loss of wetland, and use of fertilizers and pesticides

8 people expressed concerns about increased traffic, lack of road maintenance, safety

4 people were concerned about the impact on natural areas and tree cover

5 responders expressed concern over a lack of affordable housing, some mentioned this in the context of rising taxes and increase in short term rentals. While 1 person was concerned that more affordable housing will result in more crime and reduce property values.

2 responders noted the increase in large footprint homes in areas where this is not appropriate

4 people expressed concern over the increase in boat traffic on the lakes and the overcrowding at the public boat launches

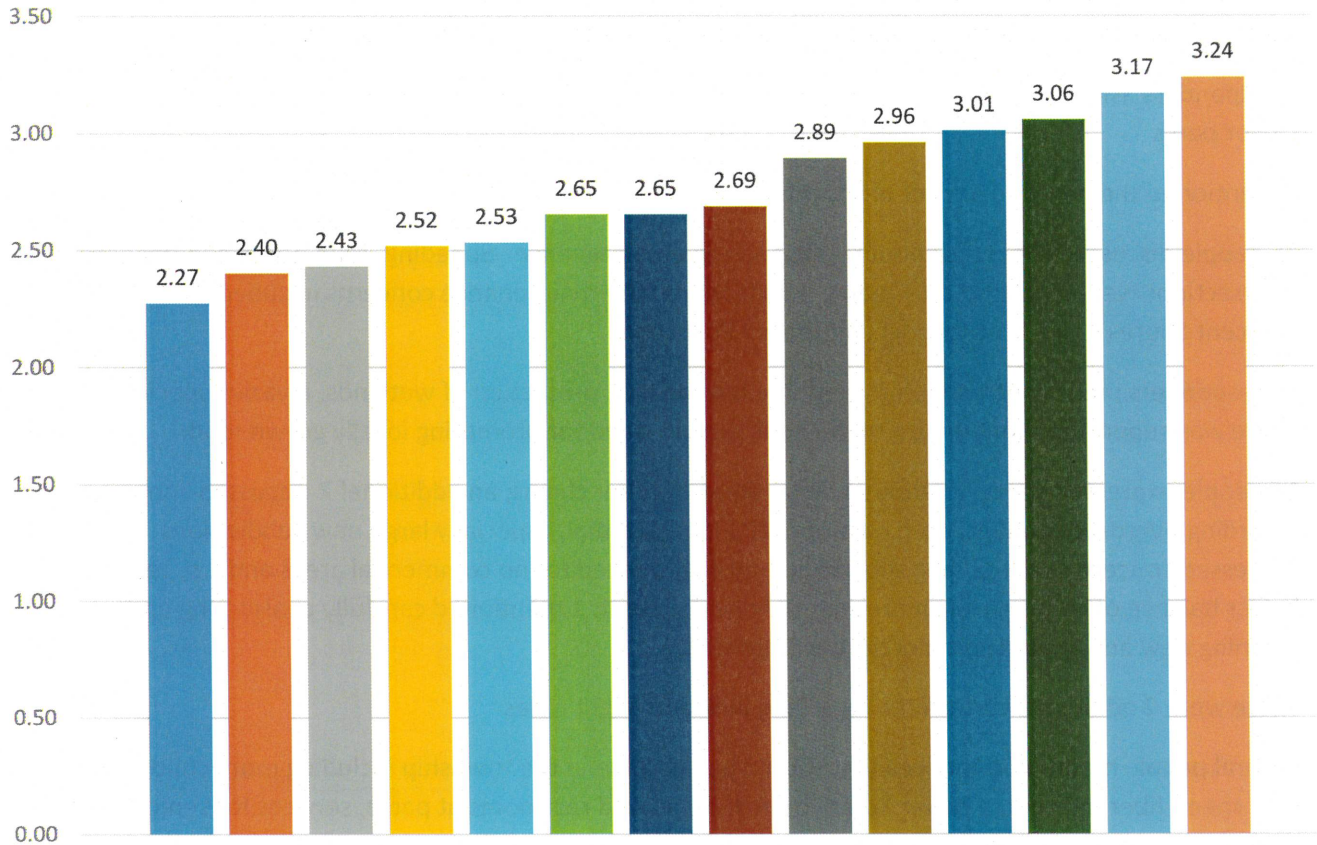
1 person expressed a need for better design of buildings

3 responders find that the township overregulates some areas, and one felt that the township also defers too much to other agencies where the township should be more involved

2 people expressed the concern that junk and blight are not better controlled

2 responders emphasized concern over light pollution

Q4 - What are the priorities that the township's Master Plan should focus on?
 (1= "high priority" 5= "low priority")



Average Score
 (lowest score is highest priority)

■ Protect natural resources	2.27
■ Protect open spaces	2.40
■ Other (explain in comments below)	2.43
■ Protect existing neighborhoods	2.52
■ Protect view corridors/public views	2.53
■ Limit growth	2.65
■ Address traffic issues	2.65
■ Improve pedestrian opportunities	2.69
■ Improve overall livability	2.89
■ Improve emergency/public services	2.96
■ Address housing affordability	3.01
■ Address "placemaking"	3.06
■ Expand housing choices	3.17
■ Improve existing commercial areas	3.24

There were additional comments associated with Question #4. Below is a summary of these comments.

4 people mentioned a desire for more compact development – allowing for preservation of more open spaces while accommodating growth. Some emphasized the need for smaller footprint homes or accessory dwellings; others expressed a need for smaller lots and connected neighborhoods

8 responders asked for additional bike lanes or trails connecting neighborhoods or allowing access to the city or parks

4 mentioned the negative impact of short term rentals on affordability and community

15 people discussed concerns about traffic and road maintenance. Speeding, road noise, and dangerous intersections were highlighted by many. Public roads with maintenance concerns included Bass Lake, Crescent Shores Road, Forest Lodge, and Lamp Post Lane

12 responders mentioned concerns regarding lake quality, protection of wetlands, invasive species. There was support for limiting use of the boat launches and for promoting locally grown food.

16 people expressed concerns about a dollar store or other chains; an additional 7 discussed concerns regarding overdevelopment, both commercial and residential, especially large new subdivisions. 1 expressed concern about adding subsidized housing, 1 asked for no commercial areas and 1 suggested a better balance of commercial and residential development; 1 mentioned carefully considering and planning new and limited commercial development.

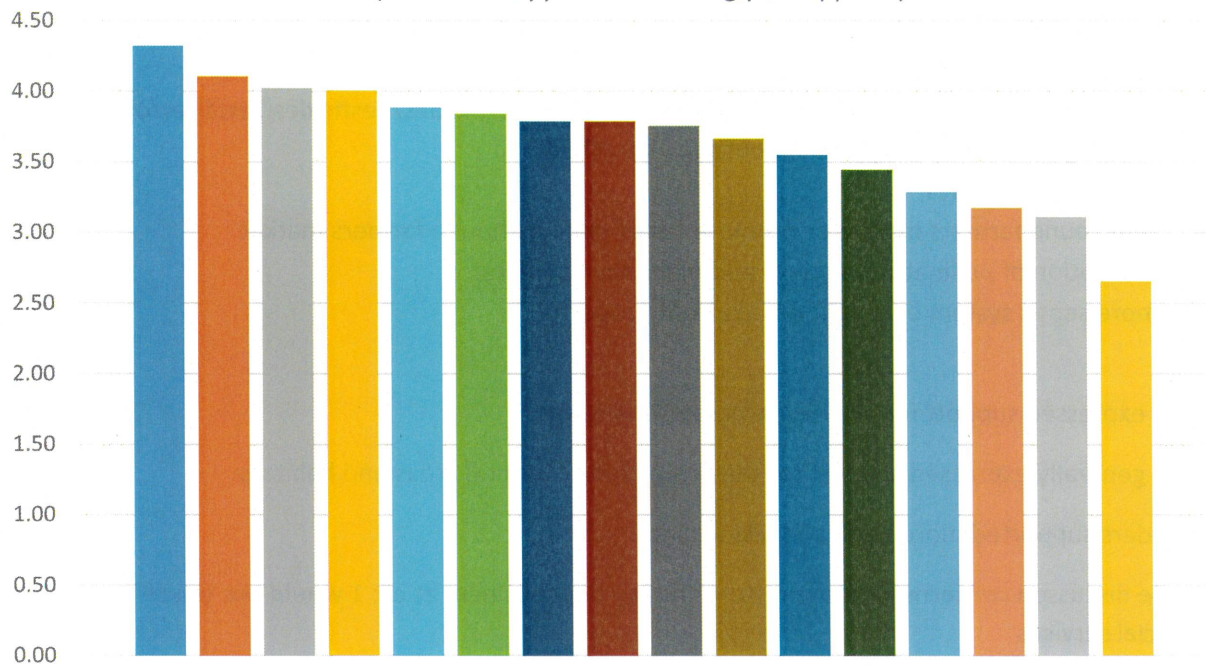
There were 2 additional complaints regarding junk and blight cases

Several people mentioned services that should be available in the township including more childcare, high speed fiber internet, a public library branch, improved restrooms at parks, services for seniors, and a location for public gatherings.

2 people mentioned concern for loss of property rights and high taxes.

Question #5 - New Programs/Initiatives: How supportive are you of the following

(1="not in support" 5= "strongly in support")



Average Score

- Protect/preserve more natural areas 4.32
- Develop programs to help contain invasive species 4.11
- Restrict removal of trees in conjunction with new developments 4.02
- Increase regulations protecting shorelines and lake buffer areas 4.01
- Expand roadside tree or pollinator planting programs 3.89
- Higher design standards for commercial development 3.84
- Develop public education programs to encourage protection of fragile shorelines (without stricter regulations) 3.79
- Explore options for a farmers market 3.79
- More enforcement on nuisance/junk complaints 3.76
- Develop growth control programs (i.e., purchase development rights) 3.67
- Design regulations to protect views from public properties or roads 3.55
- Develop local storm water control regulations 3.45
- More restrictions on vacation/short term rentals 3.29
- Regulate grading/slope alterations of properties 3.18
- Expand septic system inspections 3.11
- Restrict removal of trees on individual private property 2.66

There were additional comments associated with Question #5. Below is a summary of these comments.

Several responders had recommendations for new programs and policies including:

- community events such as beach clean up or community gardens and include educational components
- connect neighborhoods with trails
- educational programming regarding harmful effects of herbicides/pesticides/fertilizer/over mowing of water quality throughout the watershed
- more marine patrol
- year round farmers market or promote farmstands without a farmers market
- promotion of pollinator plantings and maintaining habitat
- more septic system oversight on lakefront property
-

2 people expressed support for allowing accessory dwellings

2 people generally expressed support for the protection of natural areas and habitats

3 responders supported more trails and biking lanes

14 people discussed concerns with chain stores or any new business at all; 1 would like to see more commercial services

4 people ask that the township not allow dredging

2 people noted that local gun use rules should be enacted given the increase in development

5 people complained about junk and blight enforcement

8 responders were concerned that the township may begin or already do overregulate residents

8 people expanded on tree removal restrictions – some in favor of regulating all removal and some wanting to see only restrictions on large amounts of tree removal for new development, some would like to allow removal of non-native, diseased, or dangerous trees only

6 responders were concerned with overdevelopment, large footprint houses, or support controlled growth

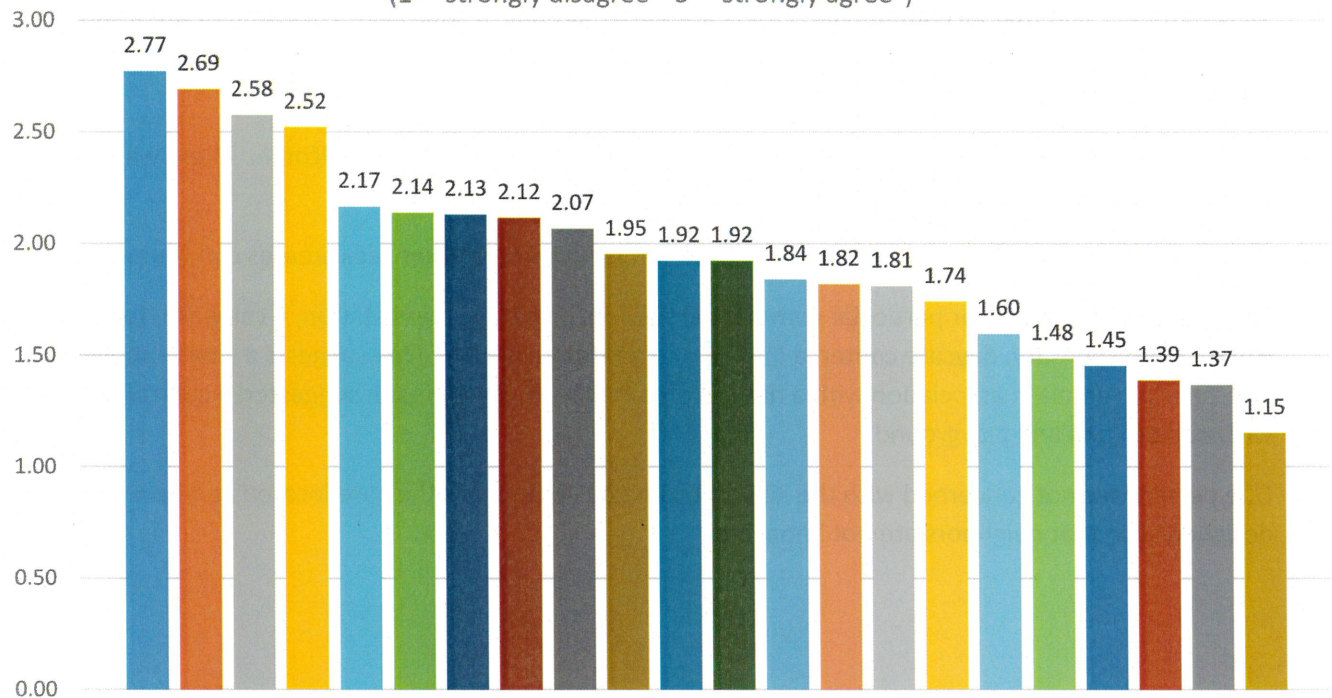
5 people were concerned with traffic and the level of road maintenance/upkeep

1 person expressed concerned about air quality in conjunction with fireworks and woodfires

4 people expressed concern with short term rentals, one with the level of enforcement of short term rental rules, and one that would like to see no short term rentals allowed

3 people were concern with lake protection and wake boat damage

Question #6 - Commercial Services: Do you agree with the following statement. Long Lake Township really needs a (an):
(1= "strongly disagree" 5= "strongly agree")



	Average Score
Full service restaurant	2.77
Coffee shop	2.69
Assisted/senior living facility	2.58
Tavern/pub	2.52
Doctors offices	2.17
Other (explain in comments)	2.14
Gas/service station	2.13
Grocery store	2.12
Take out restaurant no drivethrough	2.07
Hardware store	1.95
Professional offices	1.92
Pharmacy	1.92
Convenience store	1.84
Gift/antique shop	1.82
Salon/massage/spa	1.81
Bank branch	1.74
Auto repair shop	1.60
Dry cleaner/laundromat	1.48
Mini storage	1.45
Fast food restaurant w/drivethrough	1.39
Hotel	1.37
Dollar store	1.15

There were additional comments associated with Question #5. Below is a summary of these comments.

74 responders said that all commercial outlets are either already in Long Lake Township or are a short drive away. These answers especially focused on the desire to keep chains and especially dollar stores out of the township.

7 people said that a limited amount of added commercial services would be welcome. There was an emphasis on small and locally owned stores in these comments.

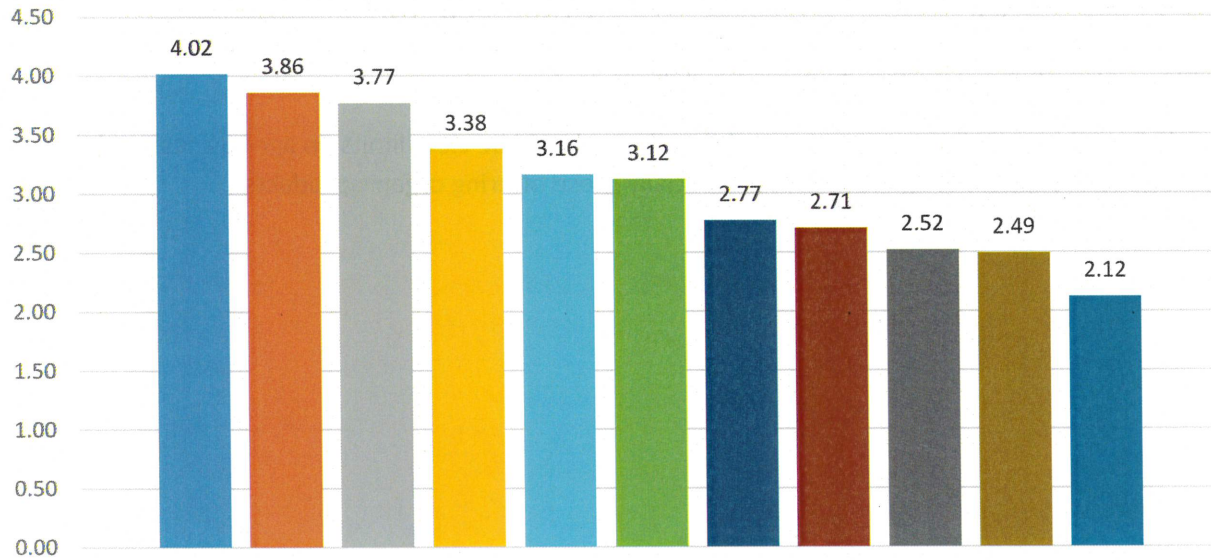
One responder noted that a small centralized location for commercial services creates community.

There were suggestions for particular commercial services including: a gas station, a car wash, food trucks, pot dispensary, daycare center, a library, and a farmers market. One suggests a small supplier of bait, snacks, rentals in association with a natural area trailhead. One person suggested a central area with a splash pad and playground.

One person was not concerned with the kind of businesses but where they are located and how they are designed such that neighbors are not impacted

Question #7 - Commercial Services: Do you agree with the following statement? Expansion of commercial services in Long Lake Township should:

1="Strongly disagree" 5="strongly agree"



	Average Score
■ Remain limited to existing commercial areas	4.02
■ Be of a size/style appropriate to its location	3.86
■ Cater to nearby residents	3.77
■ Cater to foot traffic/bikes	3.38
■ Be limited to 5,000 square feet	3.16
■ Be of a size needed to serve its purpose	3.12
■ Expand in small pockets to serve residents	2.77
■ Cater to passing traffic	2.71
■ Look like a house	2.52
■ Be allowed anywhere when associated with a farm/agri-business	2.49
■ Be a regional destination	2.12

There were additional comments associated with Question #7. Below is a summary of these comments.

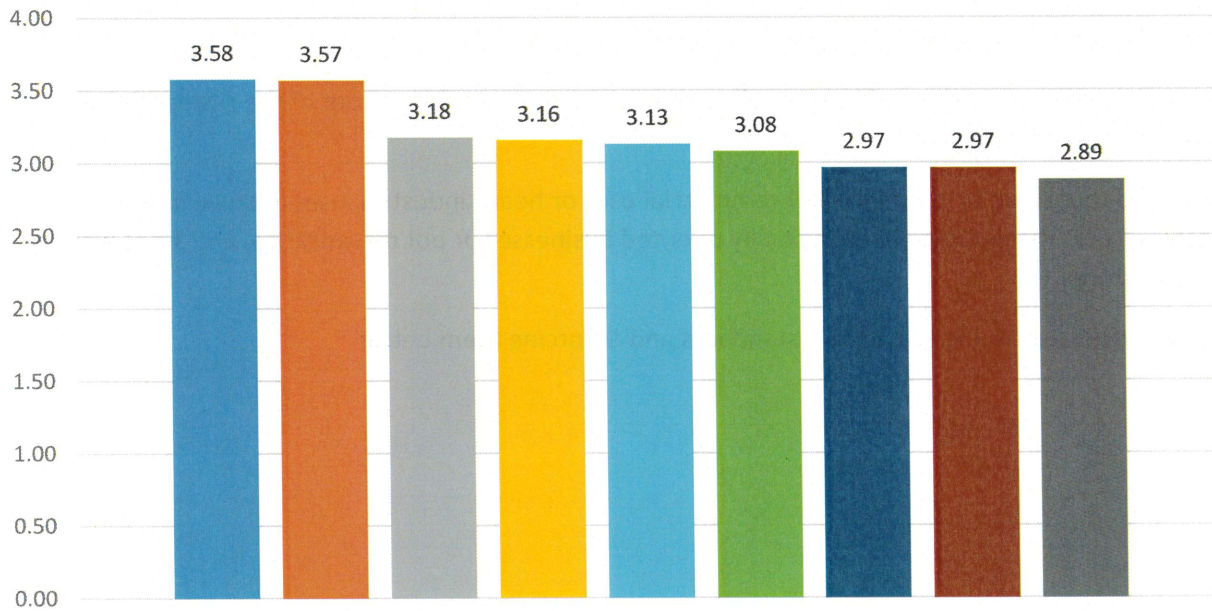
21 respondents felt that there is no need for any additional commercial areas or businesses in the township

5 reiterated the desire to not have a dollar store or other chains in the township

12 answered that there should be some limitation on new commercial development: it should be carefully considered (1), should be in character in scale (1) and design (1), there should be a concentration or village area of some limited and small businesses and services (2), and businesses should be unique but not designed as a regional draw

2 people brought up agribusinesses, 1 noted that there should be clear limits on agribusiness and the other in general support of agribusinesses, especially those offering organic products

Question #8 - Industrial & Heavy Commercial: Do you agree with the following statement? Most of the industrial and heavy commercial businesses in Long Lake Township are located along the M-72 corridor. This area should:
 (1="strongly disagree" 5="strongly agree")



	Average Score
■ Be allowed outdoor storage if out of sight and well maintained	3.58
■ Have manicured landscaping along M-72	3.57
■ Include services like a gas station/convenience store	3.18
■ Be primarily tech/office/light manufacturing	3.16
■ Be required to have paved parking lots	3.13
■ Be any use as long as it looks good	3.08
■ Be primarily contractor facilities	2.97
■ Not be allowed any outdoor storage of materials/equipment	2.97
■ Be primarily warehouse/storage facilities	2.89

There were additional comments associated with Question #8. Below is a summary of these comments.

3 people suggested that parking areas should have limited paving or permeable pavement to reduce runoff, flooding and other impacts of excessive paving. 1 specified that paved parking should be required.

8 people noted the importance of requiring landscaping along the highway but most of them specified that the landscaping should be naturalized, native vegetation that contribute to pollinators and that support the natural environment, 1 specified that rain gardens should be required.

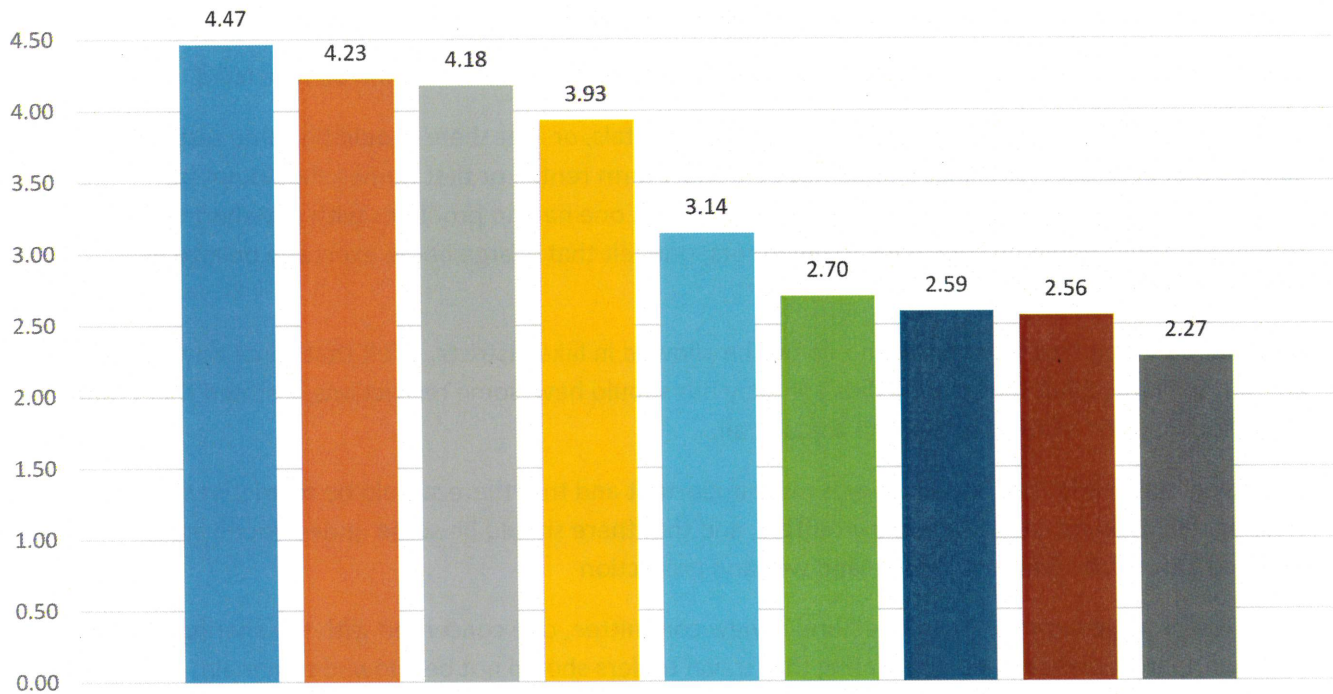
4 people suggested that there should be an emphasis on protecting the environment associated with commercial and industrial development, including a focus on light pollution

3 responders were supportive of keeping all commercial uses on M-72 and out of the residential and side roads within the township

3 suggested that there be no additional commercial uses or heavy industrial uses allowed in the township, 1 that there should be no sexually oriented businesses or pot dispensaries, and 1 not wanting any dollar stores

3 people suggested having reasonable standards and enforcing them better

Question #9 - Lakefront Housing: Do you agree with the following statement
 New lakefront homes in the township should be:
 (1="strongly disagree" 5="strongly agree")



	Average Score
■ Primarily single family homes	4.47
■ Not designed as a vacation rental home (with several suites)	4.23
■ Restricted in overall scale in relationship to the lot	4.18
■ Restricted in size so it fits into its existing neighborhood	3.93
■ Allowed to include accessory dwellings (granny flats)	3.14
■ Allowed to be permanently placed tiny homes (400-800 square feet)	2.70
■ Allowed to include new guest houses	2.59
■ Allowed to include new boat houses	2.56
■ Mixed two-family, single family homes	2.27

There were additional comments associated with Question #9. Below is a summary of these comments.

3 responders felt that new boat houses would be okay as long as all local requirements and EGLE requirements are met

10 people felt that no new boat houses should be permitted

5 people emphasized that there should be dredging permitted

7 people commented that large footprint homes or overbuilding on a lot should be restricted

7 responders felt that there should be no short term rentals, or that there should be some restrictions such as that accessory dwellings should not be a short term rental, or that homes should not be overbuilt for the purpose of creating a short term rental, one had no problems with any short term rentals but they should be courteous to neighbors; one felt that a large home expressly built to be a short term rental is okay

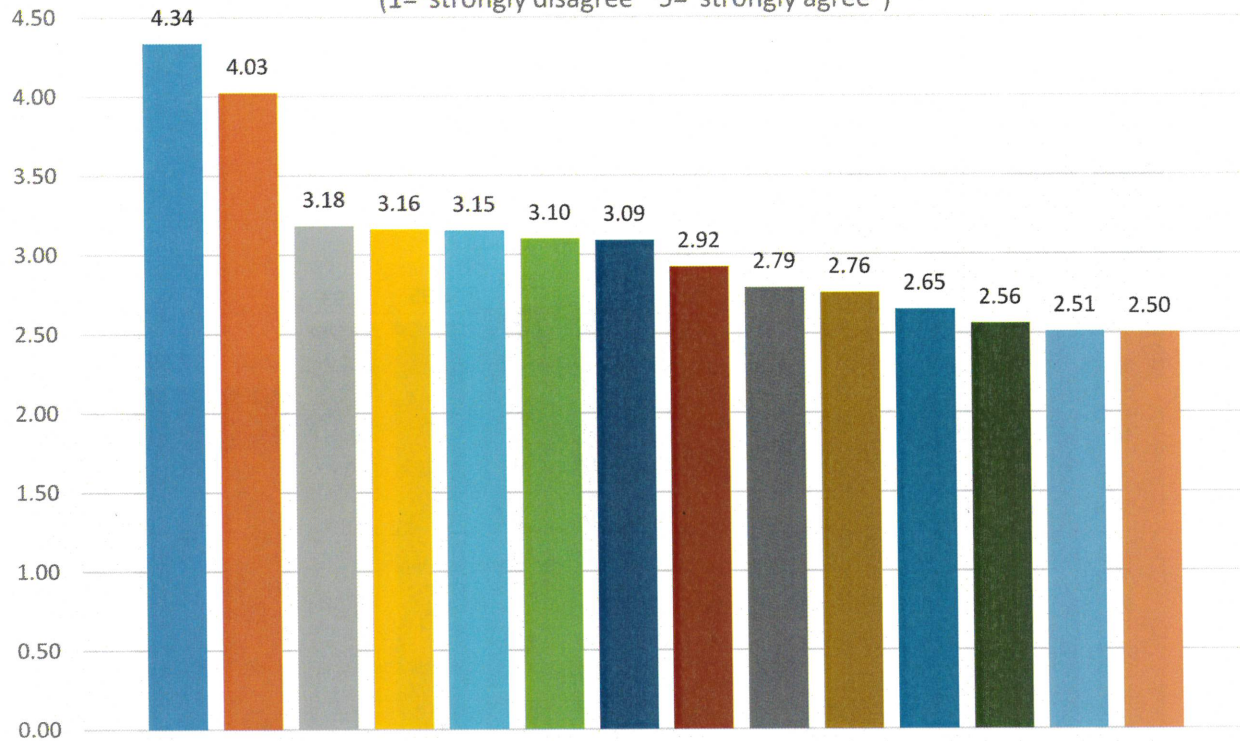
3 commenters felt that tiny homes should not be allowed in lake districts, 2 felt that some tiny homes are ok. Similarly, 2 felt that granny flats are okay but should have some restrictions, 2 stated that granny flats should not be allowed in the lake areas at all.

7 people emphasized that lake ecology is most important and that there should be restrictions on clearing, maintaining natural shoreline buffers, and that there should be some undeveloped areas retained around the lakes for wildlife and wetland protection

There was a suggestion for an architectural review committee, one concerned with the sharing of docks with nonriparian owners, and one stating that travel trailers should not be allowed to remain permanently. One responder felt that people should be allowed to do what they want on their property.

Question #10 - General Housing: Do you agree with the following statement? New homes in the township should be:

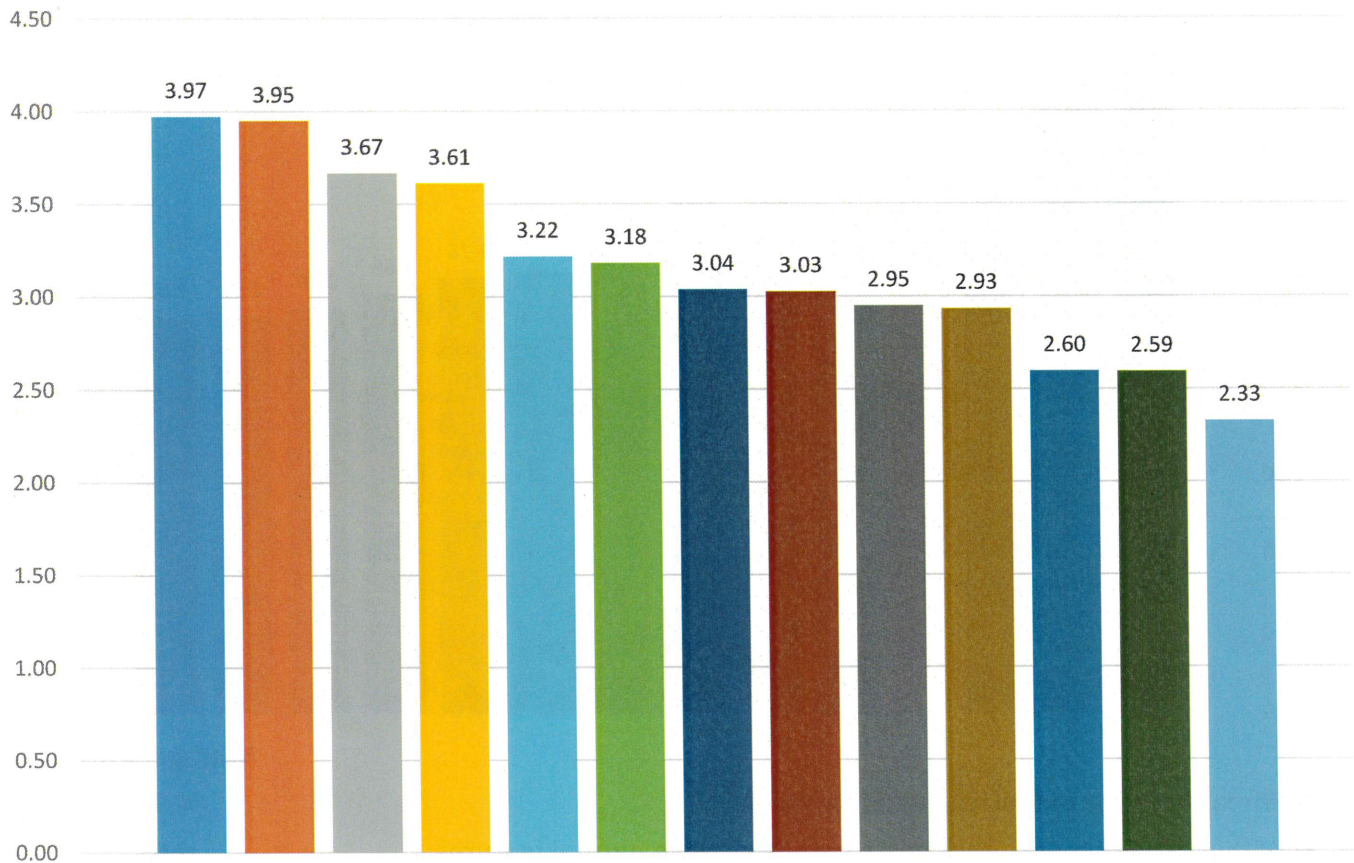
(1="strongly disagree" 5="strongly agree")



Average Score

- Primarily conventional single family homes 4.34
- Within developments designed to protect fragile natural features 4.03
- Within scattered subdivisions/developments 3.18
- Primarily restricted to planned high growth areas 3.16
- Allowed to include accessory dwellings only in appropriate locations) 3.15
- Within new subdivisions integrated and connected to existing neighborhoods 3.10
- Within developments with sidewalks and shared amenities 3.09
- Allowed to include accessory dwellings (granny flats) 2.92
- Tiny homes, in appropriate locations 2.79
- Mixed two-family, single family homes 2.76
- Allowed to include a freestanding guest home 2.65
- Multiple family developments in appropriate locations 2.56
- Small footprint/higher density/clustered free standing homes 2.51
- A maximum/minimum size as dictated by the market/not by zoning 2.50

Question #11 - Public Facilities: Do you agree with the following statement?
 Long Lake Township really needs:
 (1="strongly disagree" 5="strongly agree")



	Average Score
■ Unimproved protected lands	3.97
■ More trails/bikepaths	3.95
■ A farmers market	3.67
■ More parkland	3.61
■ Public water in certain areas	3.22
■ Public sewers in certain areas	3.18
■ More playgrounds	3.04
■ Expanded fire/ambulance services	3.03
■ A community center	2.95
■ An outdoor public event location	2.93
■ More ball/soccer fields	2.60
■ A teen activity center	2.59
■ A larger cemetery	2.33

There were additional comments associated with Question #11. Below is a summary of these comments.

4 responders emphasized that the new fire and rescue building is more than enough coverage for the foreseeable future.

4 ask that there be trails, sidewalks and pathways provided for residents, especially around Long Lake

2 requested a library

3 answered that there is a need for public sewers (some also mentioned public water), one person said that there should not be public sewer

3 people expressed a desire for more parks – dog park, pavilions, and new playgrounds and sports fields within new residential developments (or paid for by developers)

3 responders indicated that they are pleased with the way things are or think that the township is doing a great job

2 responders were concerned about sustainability, limiting car dependence, concern for food security and protection of the land

1 requested additional boat launches

1 suggested more housing options and an option to add a granny flat for owner occupied homes

Question 12 asked for additional comments. Here is a summary of the answers

45 responders reiterated a concern regarding chain stores and especially dollar stores. These were all against allowing such businesses in the township.

10 stated a desire for more trails, bike lanes, and pathways

15 people thanked the township for asking these questions or for the work that it does or felt that the township is doing a good job overall, 1 felt the township was doing ok, 1 wanted to keep taxes down

15 responders expressed concern regarding loss of natural shoreline, dredging, or the natural features (woods, streams, wetlands) surrounding the lakes

4 suggested additional boat launches or improvements to existing launches

1 person strongly opposed marijuana dispensaries, 1 suggests that the township considering allowing them

3 people complained that rules are not consistently enforced, 1 person suggested that there should be some flexibility in enforcement, 1 person urged the township not to unreasonably infringe on rights, 2 felt that the township is too restrictive, 1 was concerned about junk

14 people expressed concern regarding overdevelopment in the township in general, 3 wanted to see no more commercial development in the township, 3 recommended balancing new development to be appropriate levels of residential and commercial, 6 people encouraged the township to do what is possible to protect farms and to remain as rural as possible

8 people expressed concern about traffic levels, excessive speeds, and the impact of development on traffic

4 people asked that the township end short term rentals, 1 asked for additional restrictions on them, 1 expressed an opinion that the township should not regulate them at all

6 people felt that infrastructure should be upgraded including public water, sewer, high speed internet, or wider availability of natural gas

3 people asked for upgraded bathrooms at public parks and beaches in the township, 1 felt that dogs should be allowed at the beaches, 1 asked for disc golf facilities, 1 asked for increased marine patrols, 1 questioned why people are not permitted to share their docks

4 people asked for more transparency with this process or communications with the public in general, 1 asked that the township do a better job of keeping published ordinances up to date

1 person asked for a post office branch in the township, 2 would like to see a library branch, 1 asked for a recycling center

1 person asked for more local control over firearms, 1 would like to see mining and gravel operations restricted

3 people expressed concern regarding noise and light pollution, pesticide use

**APPENDIX 2: SHORELINE STEERING
COMMITTEE RECOMMENDATIONS**

WATER QUALITY AND LAKEFRONT LIVING

GOAL 6. All the lakes in Long Lake Township will be characterized by clean water and healthy habitat for native plants and animals while serving as sustainable resources for human recreation and use.

The Group working on Objectives A1 and A2 learned late in the process that there was a general concern voiced that there should be no changes to the Master Plan or zoning at all in regards to defining the OHWM or regulating shoreline alterations. The language below represents the group's work before this concern was raised.

Objective A1: Create a means to reliably and consistently identify the Ordinary High Water Mark (OHWM) on water bodies throughout the Township.

1. The zoning definition of OHWM shall be revised to be consistent with the State and Federal definitions and should reflect that the OHWM follows the shoreline contour.
 - a. The OHWM is the location from which setbacks are measured, the point from which the lake buffer zone begins, and the point of delineation between Township jurisdiction over the uplands, and EGLE jurisdiction over bottomlands.
 - b. The regulations surrounding the OHWM should reflect that this is not a static location and may move over time due to natural water level fluctuations and due to human activities and alterations to the shoreline.
2. Devise a system to consistently and reliably identify and document the OHWM in a reasonably timely manner in the process of administering land use permits by training professional land surveyors, environmental consultants, or other qualified professionals.
3. Complete a survey of OHWMs on all Long Lake Township lakes to establish first year elevation data to be used as a simple guide for property owners seeking permits. The final OHWM still would need to be measured by a professional, but this would establish a basis and history when making future overarching land use decisions.

Objective A2: Create a clear regulatory framework governing the activities with a potential for altering the shoreline of inland lakes in Long Lake Township.

1. For shoreline alterations involving lands above the OHWM and beyond the jurisdiction of EGLE, devise approval categories, i.e.,
 - a. **NOT permitted by the Township** Projects that benefit only a single (or small number) of property owner(s), are designed to create additional shoreline or similar benefits not otherwise attainable by such property owner(s), and that offer no demonstrable ecological value to improve natural resources. *Examples include dredging or channeling of property to expand recreational use of the shoreline for use and benefit of a single property owner. (Consensus was not reached on this limitation)*
 - b. **Permitted by the Township** Projects that are undertaken by a public entity on public property for the clear primary purpose of improving a natural resource to address an ecological or environmental concern. Conditions may be added to such approval to ensure

compliance with prescribed standards. *Examples include restoring a shoreline wetland once artificially drained within a public park, or altering a shoreline to expand a public boat launch.*

- c. **Eligible for consideration under Conditional Use Permit by the Township** Projects that may primarily benefit one or a small number of property owners, whether public or private, but that also have a clear public purpose or/and (consensus not reached on this being “or” or “and”) provide a public benefit; and that provide a demonstratable ecological benefit as a result of the shoreline alteration. Conditions may be added to such approval to ensure compliance with prescribed standards. *Example is removing a jetty and replacing with a natural shoreline, significantly moving the location of the recognized OHWM in the process but also benefitting neighboring shoreline that may have been negatively impacted by the former artificial shoreline and resulting in a new shoreline contour for neighboring properties.*
2. Formalize local consideration of eligible shoreline alteration projects on inland lakes through the conditional land use permit process (category 3 above) or administrative permitting process (category 2 above).
 - a. The conditional use permit process for category 3 projects allows for a public hearing and consideration of such proposals by the Planning Commission based on prescribed discretionary and non-discretionary standards. Action by the Planning Commission and the accompanying record becomes the official local government’s response to EGLE for their consideration during evaluation of such proposals. Standards and conditions relative to lands above the OHWM can also be enforced by the Township through this process.
 - b. The administrative permit process for category 2 projects could be approved by Township staff with consultation by qualified professionals and in consultation with EGLE and other appropriate agencies.

Objective B1: Update zoning to govern activities within the shoreline buffer area to include the following:

Shoreline buffer zones of native trees, shrubs and vegetation are important to stabilize shorelines, filter and reduce runoff, and maintain natural transition zones for healthy wildlife, insect and plant habitats. The shoreline buffer zone is intended to supplant the current 50-foot waterside setback.

1. In association with land use permit for new construction, or other significant site alterations such as the expansion of existing buildings or addition of new buildings, protect a shoreline buffer 30’ from the OHWM with specific allowances for (1) reasonable* trimming of trees and removal of dead or diseased vegetation; (2) clearing of up to 30% of the width of the 30’ buffer for access to the water and placement of allowed structures.

NOTES: *The definition of “reasonable” trimming was a concern raised in the group sessions. The group felt that activities for the sake of safety should be allowed.

There were also suggestions raised in the general discussion sessions for a tiered zone approach. More restrictive in 10’, perhaps loosening the guidelines as the distance from the water grew. There was also a question raised about distance being calculated vertically versus horizontally, and how this may influence the zone determination. Higher verticality would create higher velocity flows, so any consideration of this would have to be carefully analyzed.

Enforcement after the fact was raised in the general sessions.

FINAL Recommended Master Plan Objective Statements
Shoreline Steering Committee June 30, 2022
Page 3 of 5

Shoreline buffer zones of native trees, shrubs and vegetation are important to stabilize shorelines, filter and reduce runoff, and maintain natural transition zones for healthy wildlife, insect and plant habitats. The shoreline buffer zone is intended to supplant the current 50-foot waterside setback.

2. For all shoreline property owners, regulate excavation of land (including construction of canals, artificial basins, or ponds) within the 50-foot waterside setback area.
3. Regulate the placement and location of retaining walls within the required waterside setback area through land use permits.

NOTES: This is a complicated issue which requires careful thought. We had only 15 minutes at the end to discuss as a group the concerns that were brought up about this.

The last phrase was eliminated to address concerns raised that a “stormwater management plan” could be used as a proxy to develop private navigable canals, basins or ponds.

Our intention is to have the township have regulatory oversight of the excavation into the natural shorelines of our lakes, especially in the case of creating private artificial waterways or extensions of the lake (canals, artificial basins or ponds).

(Regarding Objective B1.2) A concern in the general sessions was that the word “restrict” may mean “prohibit” with no conditions - which may be too limiting as an ordinance regarding all possible scenarios requiring excavation. There was some discussion in Group B about using “regulate” as an alternative. In researching this further, the definitions are very different. “Regulate” is to “bring under the control of law”. “Restrict” is a means of regulating and is to “limit activity, by statute, regulation or contract provision”. “Prohibit” is a subset of that which means to “forbid and act or activity”.

In our Group B session there was discussion about land use permit, site plan permits, and conditional land use permits. A tiered permitting system could help manage the administrative requirements. Certain excavation types only require a land use permit, other types require site plan permits with more oversight for approval and a third category such as those in the moratorium use a conditional land use permit process.

In our Group B session, there was another concept of “prohibited without a permit” that was raised. This is used in the Inland Lakes and Streams (Part 301) Permit Process. Certain activities in this are “prohibited without a permit”. However, there is a process by which a permit may be granted under very specific guidelines such as “the proposed project may not adversely affect the public trust or riparian rights” and there exist no feasible alternatives.

(Regarding Objective B1.3) Here the word regulate is appropriate as it is asking the township to develop an ordinance around this activity but does not propose how to do that.

Objective B2: Devise a stormwater run-off ordinance to ensure that the velocity, nutrient load, contaminants, and silt associated with storm water on developed shoreline properties is responsibly managed.

NOTES: There were no concerns raised in the sessions regarding this objective. Given new weather patterns, this was generally thought to be something that the township should be considering.

Objective B3: For all shoreline property owners, promote planting of native plants and appropriate fertilizing methods within the shoreline buffer area through educational materials, recommended plant lists and suppliers, and similar means.

1. Preparation of educational materials promoting the protection of existing natural shoreline
2. Preparation of educational materials promoting the responsible use of herbicides and pesticides

3. Provide and promote educational resources through the Township's webpage, newsletters, and other means

NOTES: Here the word regulate is appropriate as it is asking the township to develop an ordinance around this activity but does not propose how to do that.

Objective B4: Seek partnerships and funding opportunities to re-naturalize shoreline properties that were previously hardened or cleared of natural vegetation.

1. Provide financial incentives to encourage the protection or restoration of natural shorelines

NOTES: There was favorable feedback from the general sessions regarding this concept. Seeking grant money to facilitate re-naturalizing shorelines was a suggestion made in the general session as well. (Group B had discussed encouraging this previously).

Objective D1: Update zoning for the Natural Lakes zoning district to address the following:

1. Revise regulations to be more in line with the Lake Residential zoning district in regards to minimum lot sizes and widths.
2. Revise regulations to create shoreline protection zones that are no more than 25 feet in depth from OHWM or less if found to be as effective and more enforceable and defensible.
3. Remove permitting requirements that do not have a regulatory purpose, including the requirement for a vegetative survey

Objective E1: Devise a woodland protection ordinance that reasonably and responsibly regulates removal of trees in the lake districts to address the following:

1. Protection of all existing trees within a minimum of 25-30% of the waterside setback area
2. Outside of the waterside setback area, protection of a majority of existing trees excepting development areas (i.e., building footprints, driveway, utilities, septic/well, etc.)
3. Provides for a fair and consistent means of monitoring and enforcement

Objective E2: Devise a grading ordinance that reasonably and responsibly regulates the alteration of existing topography in the lake districts to address the following:

1. Protection, to a reasonable degree, of all high priority natural features as identified in the Natural Features Inventory
2. Minimize grading within the water side setback area unless part of an approved storm water runoff plan
3. Prohibits grading within 30 ft of the OHWM without an approved storm water runoff plan

Objective F1: Create protections for wetlands and associated zones that are unregulated by the State of Michigan but that are important to maintaining inland lake water quality.

1. Update the Natural Features Inventory to reflect current conditions and to more specifically identify the ecologically sensitive areas that should be protected under such regulations.
2. Consider an appropriate setback such as a minimum of 25' from all regulated and unregulated wetlands
3. Allow for flexibility within the regulations in consideration of the merits of the proposed project.

Objective G1: Adopt regulations limiting impervious surfaces permitted on shoreline properties. Such regulations will be written in recognition of the importance of these restrictions balanced against reasonable expectations for the use and enjoyment of property as follows:

1. Provide for a sliding scale of minimum lot coverage rates based on site conditions including parcel size
2. Include regulatory incentives such as a higher maximum lot coverage rate in exchange for a larger protected shoreline buffer area.

Objective G2: Provide educational information to shoreline owners regarding the importance and benefits of limiting impervious surfaces.

CHARTER TOWNSHIP OF LONG LAKE
GRAND TRAVERSE COUNTY, MICHIGAN

Resolution No. 2-24-3

RESOLUTION TO ADOPT THE
2024 CHARTER TOWNSHIP OF LONG LAKE MASTER PLAN

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

WHEREAS, the Charter Township of Long Lake has undertaken the development of a Master Plan to guide development; promote the public health, safety and welfare of the Township, to encourage the proper use of resources; the facilitate recreation and other public improvements, and to consider the character of the Township and the sustainability of particular land uses; and

WHEREAS, the Charter Township of Long Lake issued Notice of Intent to Plan letter on May 4th, 2021, in accordance with the requirements of the Michigan Planning Enabling Act (Public Act 33 of 2008 as amended) (the MPEA); and

WHEREAS, on September 12, 2023, the Charter Township of Long Lake Township Board received and reviewed a draft of the proposed Master Plan prepared by the Planning Commission and the Township Board authorized the distribution of the Master Plan draft to the Notice Group entities identified in the MPEA; and

WHEREAS, on September 20, 2023 a copy of the proposed amendment and notice of a public hearing was provided to the Notice Group entities as provided in the MPEA; and

WHEREAS, the Planning Commission held a public hearing on November 28, 2023, following a 62-day comment period, after notice was published in the Record Eagle on November 12, 2023, to consider public comment on the proposed Master Plan amendment, and to further review and comment on the proposed Master Plan draft; and

WHEREAS, Pursuant to MCL 125.3843 The Township Board has asserted by resolution 4-18/19-10 its right to approve or reject a proposed Master Plan or Master Plan amendment following approval by the Planning Commission; and

WHEREAS, the Planning Commission has considered all public comment received during several opportunities for public input during the drafting of the Master Plan draft and has prepared a final draft after careful review of public comment; and

WHEREAS, the Planning Commission recommended approval of the Master Plan on January 23, 2024;

THEREFORE, BE IT HEREBY RESOLVED AS FOLLOWS:

1. The Charter Township of Long Lake Board hereby approves and adopts the 2024 Township Master Plan, dated February 6, 2024 as the Plan for the Township as authorized and required by the Planning Act.

2. That the Secretary of the Planning Commission is hereby directed to submit copies of the adopted Plan to adjacent communities and other entities as required by the Planning Act.

Moved by: Robinson

Seconded by: Balderach

Ayes: Wagner, Wheelock, Balderach, Schaub, Robinson, Lemcool

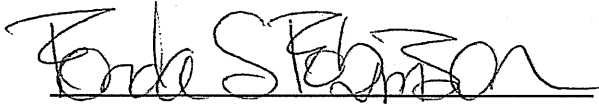
Nays: Rademaker

Absent: 0

Resolution declared adopted

Certificate

I, Ronda Robinson, certify that the foregoing is a true and complete copy of Resolution # 2-24-3 adopted by the Charter Township of Long Lake Township Board, County of Grand Traverse, State of Michigan, at a Regular Meeting held on February 13, 2024.

A handwritten signature in black ink, appearing to read "Ronda Robinson", written over a horizontal line.

Ronda Robinson, Clerk Date

