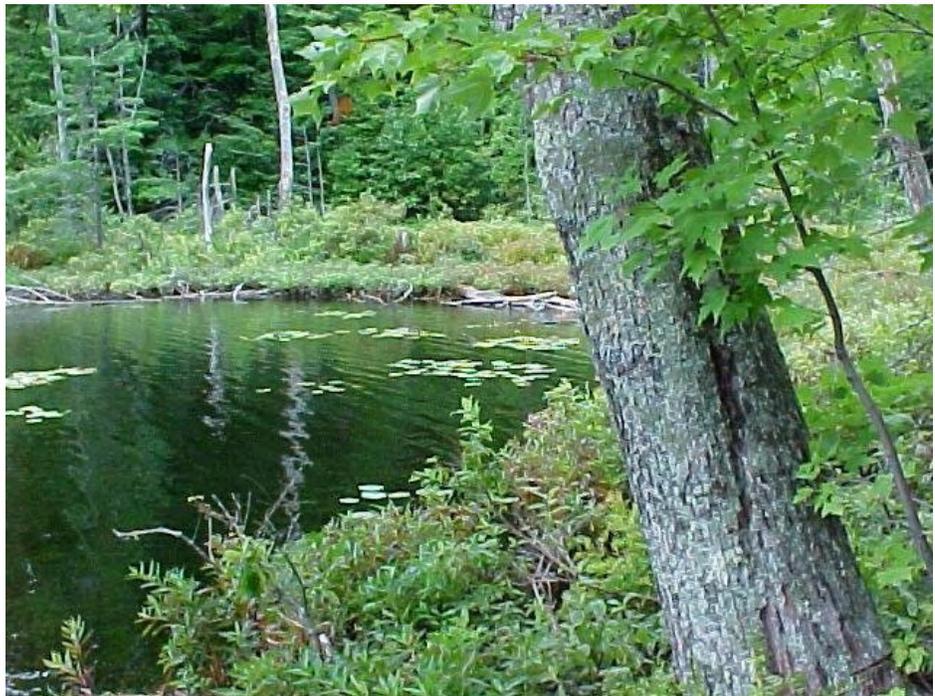


# LONG LAKE TOWNSHIP

Grand Traverse County, Michigan

## COMPREHENSIVE PLAN



*...A GUIDE FOR GROWTH AND PRESERVATION...*

NOVEMBER 30, 2005

# LONG LAKE TOWNSHIP COMPREHENSIVE PLAN

Adopted: November 30, 2005



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Jay Kilpatrick, AICP, PCP

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## SECTION I.

### CHAPTER 1. INTRODUCTION

The fundamental purpose of a Comprehensive Plan (or Master Plan) is to enable a community to establish a direction for physical development, capital investment and growth. Therefore, a Comprehensive 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 Township Planning Act (Public Act 168 of 1959, 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 and 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.

**This Plan reflects the community's deep concern for the natural beauty of its surroundings and a strong commitment to retain and strengthen local quality of life.**

Therefore, this Comprehensive Plan represents the culmination of nearly two years work by numerous local residents and local officials. It reflects 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 is appropriately general, recognizing that planning for the future is a delicate blend of art and science and that sufficient flexibility will be needed to respond to the challenges of the future.

## PLAN METHODOLOGY

The process to prepare this Comprehensive Plan consisted of four inter-related phases:

- ◆ The Community Profile - Understanding current trends
- ◆ Futuring and Goal Setting - Defining community values
- ◆ Comprehensive Plan Preparation - Describing the preferred future
- ◆ Implementation Strategies - Moving from planning to action

The purpose of the first phase was to assemble sufficient data and information to develop a clear understanding of the land use, demographic, and public service issues that currently face the Township and its region and to outline the likely implications of current trends. The result of this phase was the community profile report, which forms the Section II of this Plan.



**The futuring workshop brought residents together to discuss key challenges and opportunities facing the Township**

The second phase sought to establish a policy basis for the Township's planning and land use regulations. It began with the conduct of a community-wide futuring workshop. That meeting was held on May 8, 2003 and it brought together interested community residents to discuss key challenges and opportunities facing the Township. As a result of that session, the Township identified the following five key areas of concern which were further explored in focus group sessions:

- ◆ East Side Gateways
- ◆ Public Water and Sewer
- ◆ Fire Fighting and First Responders
- ◆ Commercial Development
- ◆ Lakefront Living

With the input from the futuring workshop and the focus groups, the Planning Commission developed the statement of goals and objectives set forth in Section III of this Plan.

The third phase involved drawing together the input from the previous two and preparing the Comprehensive Plan, including the revised future land use plan. The intent of Section III is to provide the policy foundation for the Plan and the future land uses as well as the implementation strategies.

Those implementation strategies are presented in Chapter 9 and they are intended to shift the Township from the planning exercise to action strategies that result in concrete change in the community.

**Implementation strategies are intended to shift the Township from the planning exercise to action strategies that result in concrete change in the community.**

In accordance with the 2001 amendments to the Township Planning Act (Act 168 of the Public Acts of 1959, as amended), 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. An Open House was held to gather further comment and the Planning Commission ultimately held the public hearing on November 30, 2005. Following that hearing, the Planning Commission adopted a resolution approving and officially adopting this Plan for Long Lake Township.

## THE 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. 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).

Three appendices are provided with this Plan. Appendix A is the Bibliography which outlines all the various resources consulted in the completion of this Plan. Appendix B is Acknowledgements which seeks

to provide credit to the range of individuals that have given their time in the development of this plan. Appendix C is the Long Lake Township Community Forestry Plan adopted on January 18, 2000 and incorporated here in this plan by reference as separate volume.

## SECTION II. 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.



**Map 1. Location Map**

**The Township's rolling and varied terrain contribute to its visual appeal.**

#### Topography

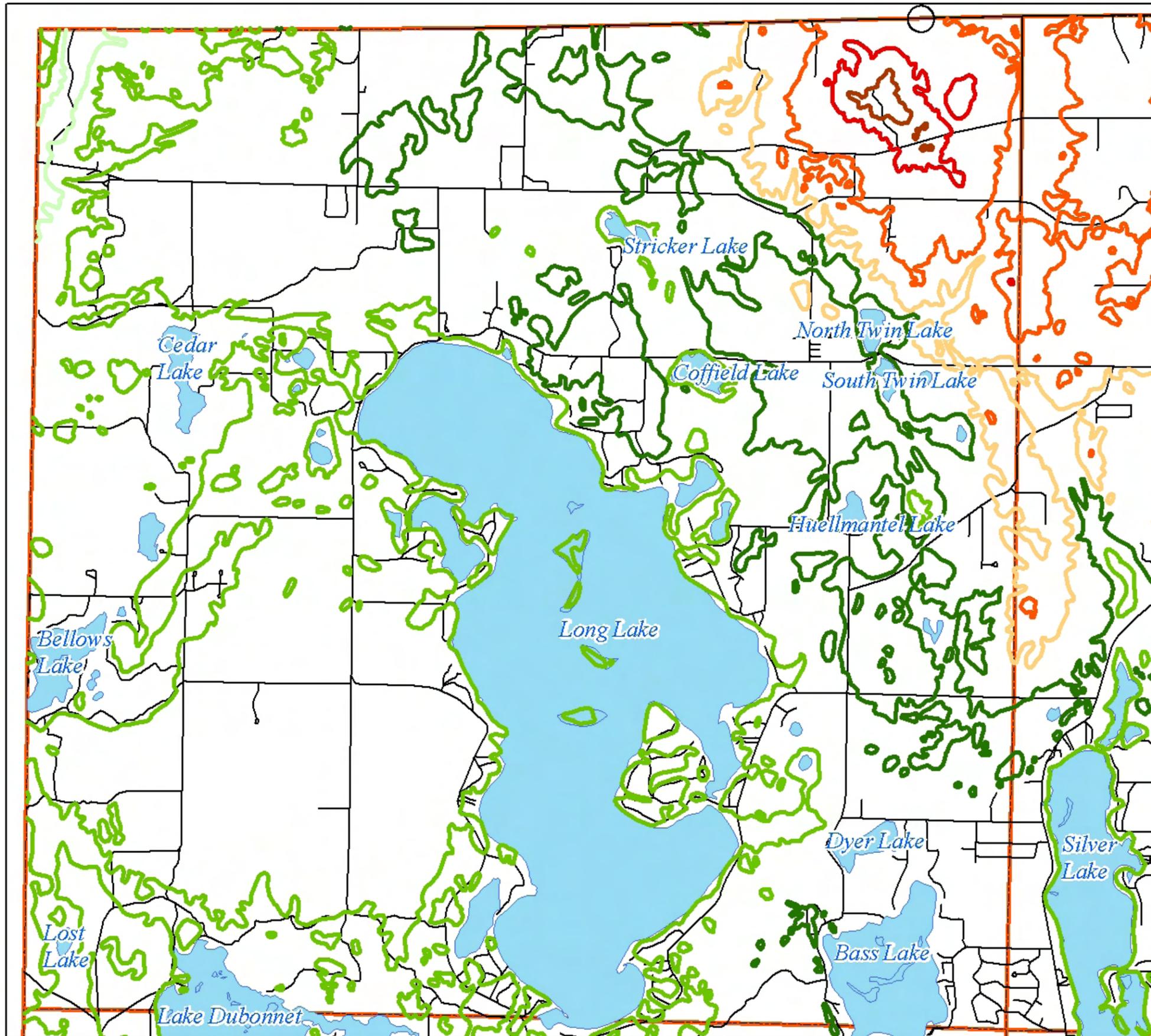
The surface features of the Township define its topography. The contour of the land itself in Long Lake Township is a direct result of historical glacial activity. As the glaciers melted and receded to the north, they deposited debris (i.e., soils sediment and rocks) in the form of moraines, lake and 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 2). 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.



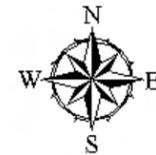
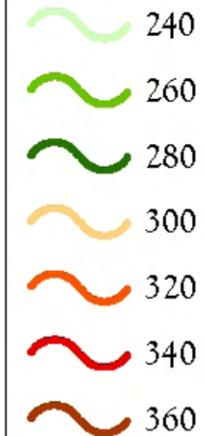
# Map 2 Long Lake Township

Grand Traverse County, Michigan



## Legend

Contour Level (meters)



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Source: State of Michigan Geographic Library

Back of Map 2

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.

### Soils

**The soils in the Township help to define the limitations on land uses and development.**

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 drainfields effluent.

In Long Lake Township, the soils are characterized in three broad categories according to the U.S. Department of Agriculture Soil Conservation Service.<sup>1</sup>

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.

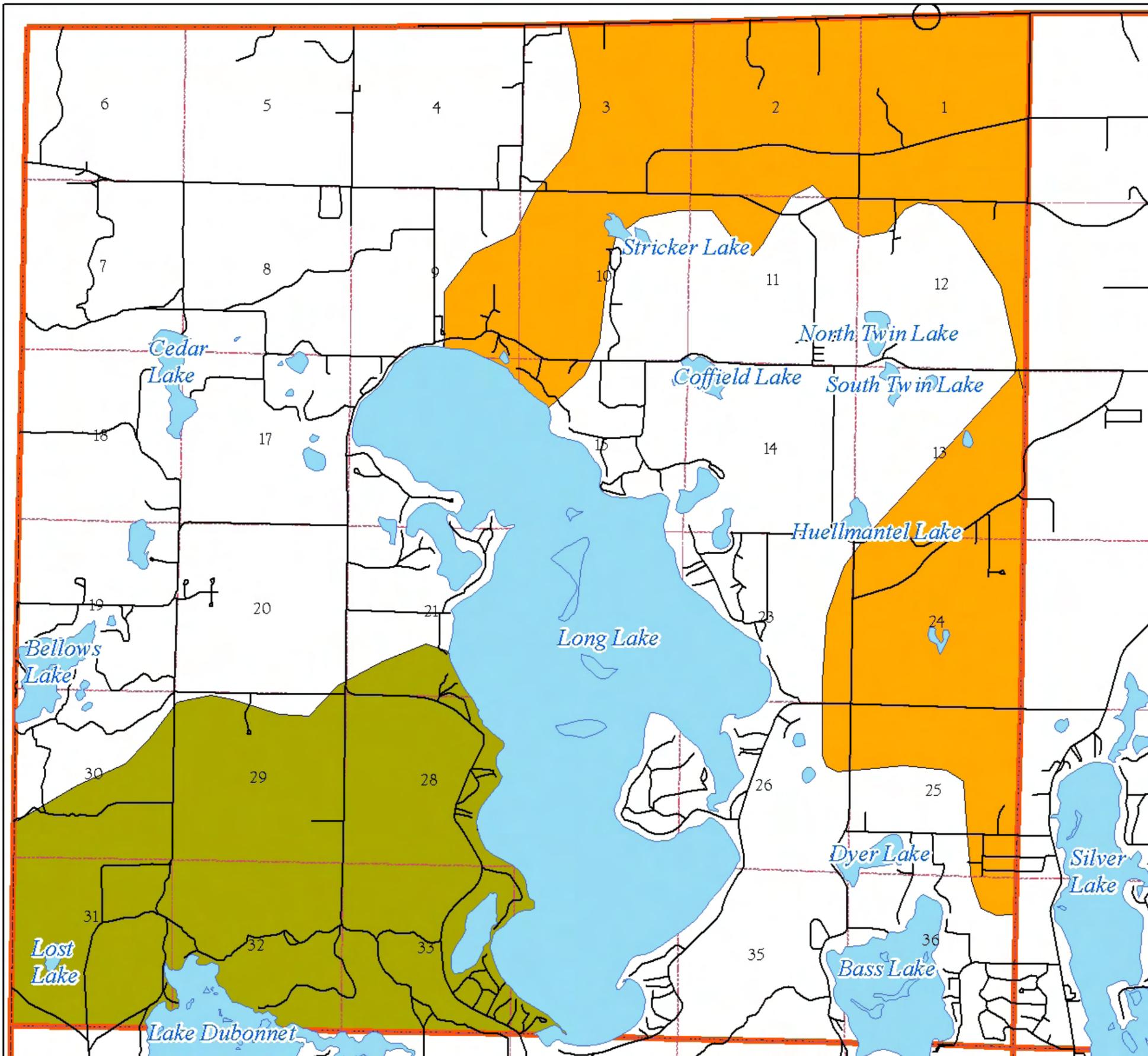
The Kalkaska-Mancelona association forms a band that separates the Emmett-Leelanau and Rubicon-Grayling associations. It is found running in a southeast to northwest configuration through the Township. This association is found on rolling to steep uplands and in level to moderately sloping valleys. The soils in this association are typically level to steep, well drained sands and loamy sands

<sup>1</sup> U.S. Department of Agriculture, Soil Conservation Service, *Soil Survey*, August 1964.



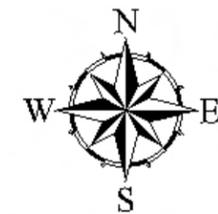
# Map 3 Long Lake Township

Grand Traverse County, Michigan



## Generalized Soil Association

-  Emmet-Leelanau
-  Kalkaska-Mancelona
-  Rubicon-Grayling



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Source: USDA Soil Conservation Service

Back of Map 3

**Lakes, Streams, and other Waterbodies**

**The Township’s inland lakes and streams provide an important defining characteristic of the community.**

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 1-1 below lists the names and surface area of these significant water bodies.

Table 1-1 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			
Source: Long Lake Township Community Recreation Plan, 1987			

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 Water Quality

**Long Lake was known for its clear waters and sandy beaches, but as more development occurred around the lake, residents began to notice increasing levels of vegetation...**

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. The Long Lake Association and Long Lake Township supported a two-year effort to study the water quality in Long Lake.<sup>2</sup> The purpose of the study was to measure and quantify water chemistry. The primary concern was a perceived shift of the lake toward early signs of eutrophication.<sup>3</sup> Long Lake was known for its clear waters and sandy beaches; but as more development occurred around the lake, residents began to notice increasing levels of vegetation, such as algae, in the water. The study of water quality completed in 1999 did reveal elevated levels of phosphorous in Long Lake bottom sediments.



**Development along the lake shore can accelerate the increase in phosphorous levels.**

That study was followed by an extended Water Quality Study conducted by an independent consulting firm. That analysis considered samples consistently drawn from the lake in the spring and summer each year from 1993 through 2001. The study considered several measures of water quality including temperature and dissolved oxygen, conductivity, total alkalinity, nitrate nitrogen, chlorophyll a, pH and total phosphorous. The results of these individual samples and the trends they indicate are presented in a Lake Water Quality Index which the study authors indicate provides an accepted measure of water

quality which can be used for comparative studies. This study confirmed the elevated levels of phosphorous in bottom sediments, but overall gave Long Lake water quality indices ranging from 93 to 100 on a scale of 1 to 100. In fact, the authors indicate that, “Long Lake is the only lake we’ve studied that ever had a Lake Water Quality Index of 100.”<sup>4</sup>

<sup>2</sup> Canale, Ray, *Long Lake Water Quality Study*, 1999.

<sup>3</sup> “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.

<sup>4</sup> Water Quality Investigators, *Long Lake Water Quality Studies*, 1993-2001.

**“Long Lake is the only lake we’ve studied that ever had a Lake Water Quality Index of 100.”**

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 drainfield 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 along the shoreline.

Map 4 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.

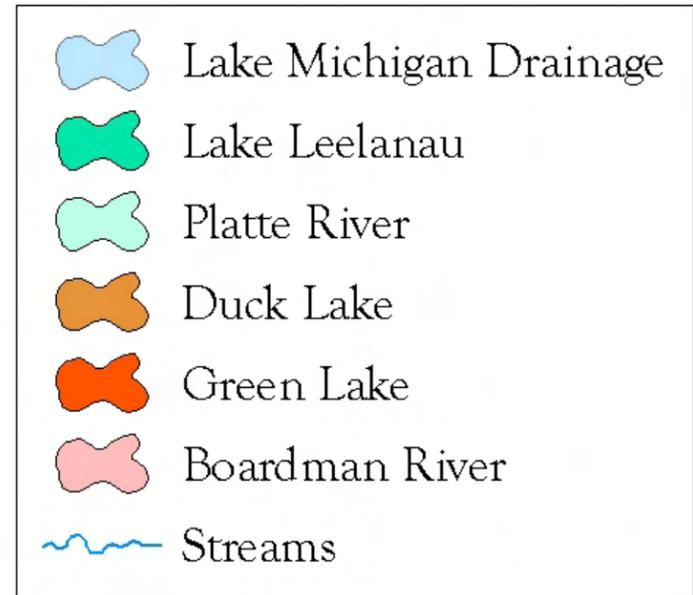
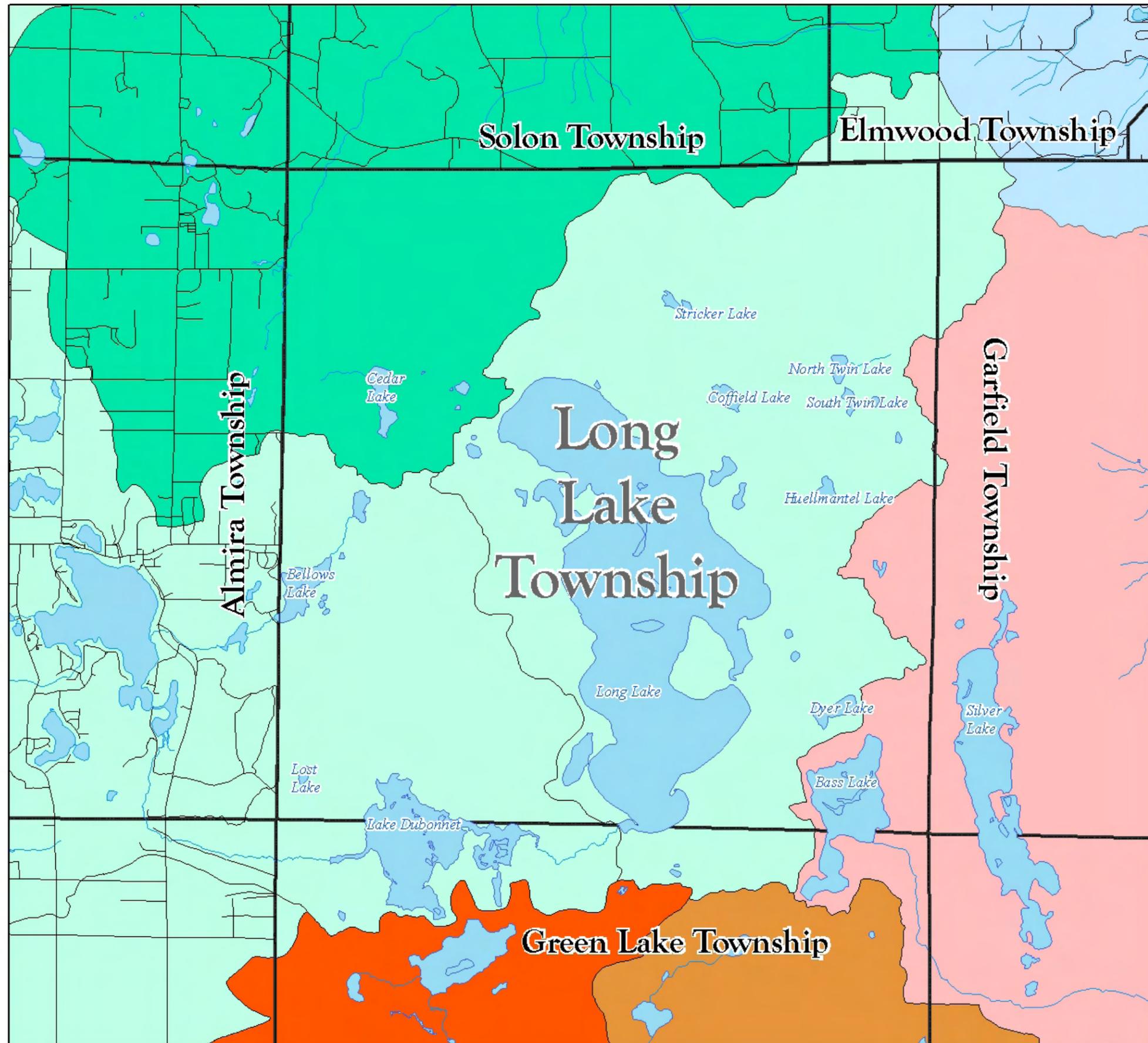
### **Wetlands**

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 Long Lake Township

Grand Traverse County, Michigan



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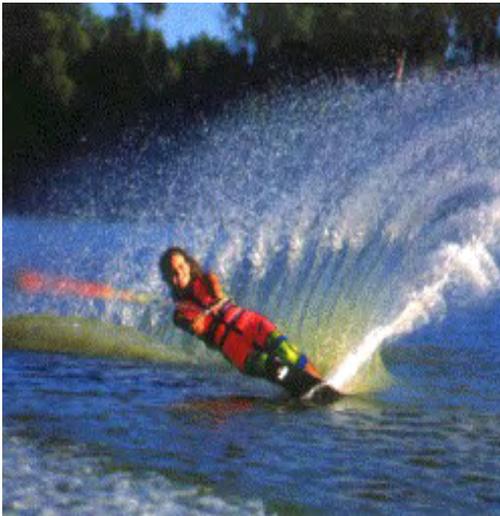
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Source: State of Michigan Geographic Library

Back of Map 4

Map 5 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 5, therefore, must be reviewed with an understanding that it illustrates areas that may have features that could support a wetland determination. However Map, 5 *is not* to be regarded as an official wetlands map for Long Lake Township.

### Climate



**The Township's lakes and the temperate summers encourage outdoor recreation.**

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 temperatures range from an average low of 13.7°F to an average high of 39.7°F. In the summer, average high are 81.2°F and average low temperatures are 52.1°F. The community receives about 33.47 inches of precipitation annually, including both rain and snowfall. Of this, annual snowfall has averaged 96.2 inches for the period of 1971 to 2000.<sup>5</sup>

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.

### 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.

<sup>5</sup> Midwestern Regional Climate Center, website, *Historical Climate Data*.

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.



**Long Lake Township's woodlands form a defining element of the community.**

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 (see Appendix C) 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.

# Map 5 Long Lake Township

Grand Traverse County, Michigan

## Generalized Potential Wetland Areas

-  Wetlands (as determined by Grand Traverse County)
-  Wetlands (as determined by Long Lake Township)

This Long Lake Township Wetlands Inventory Map is intended to be used as one tool to assist in identifying wetlands and provide only potential and approximate location of wetlands and wetland conditions.

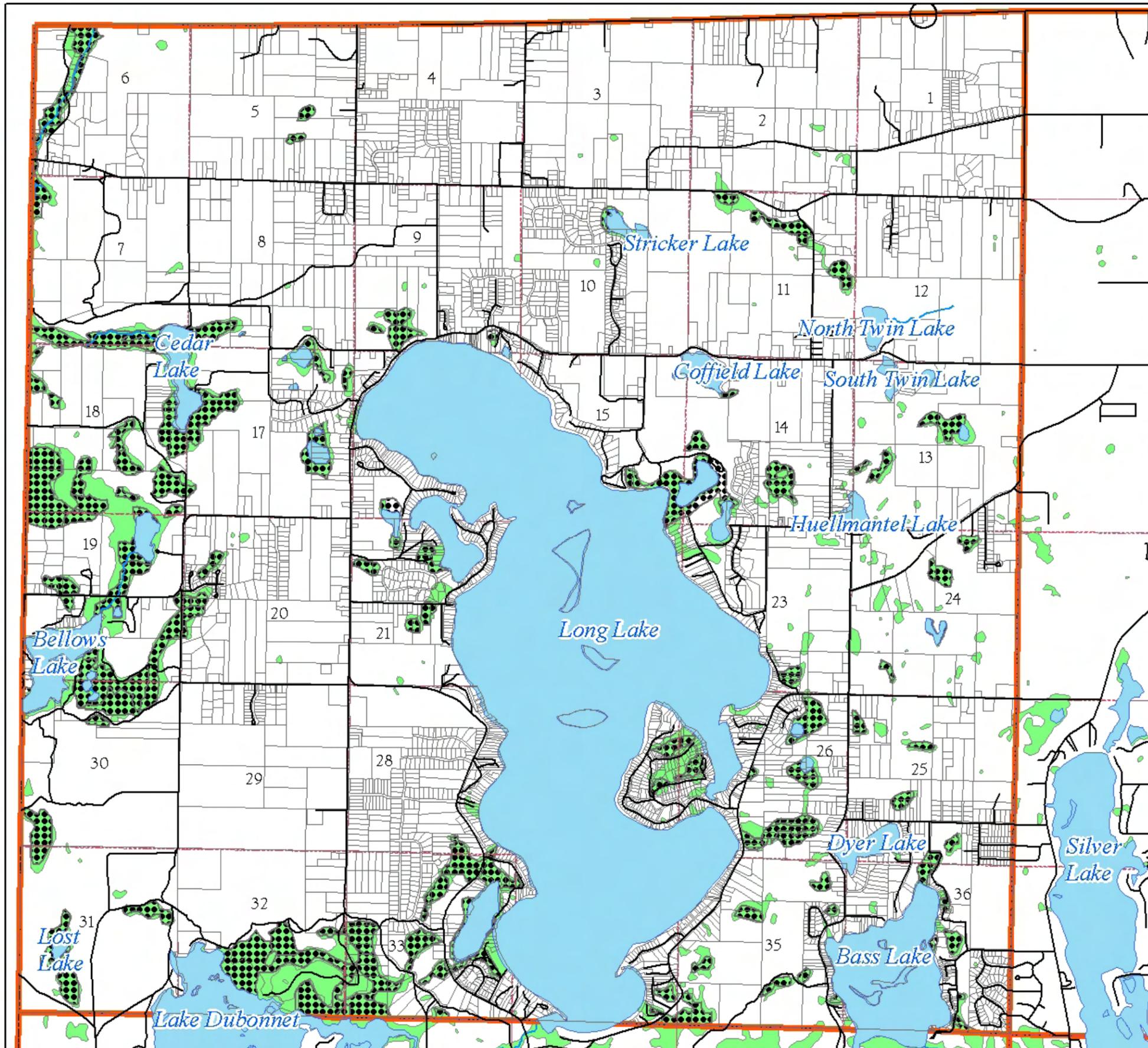
This map is not intended to be used to determine the specific locations and jurisdictional boundaries of wetland areas subject to regulation under Part 303 Wetlands Protection of the National Resources and Environmental Protection Act, 1994 PA 451, as amended. Only an on site evaluation performed by MDEQ in accordance with Part 303 shall be used for jurisdictional determination. A permit is required from the MDEQ to conduct certain activities in jurisdictional wetlands.



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Source: State of Michigan Geographic Library



Back of Map 5

**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.**



**the Wood Turtle**



**Shrike**



**Lake Huron Tansy**

### **Endangered, Threatened, and Special Concern Species.**

According to the Michigan Natural Features Inventory,<sup>6</sup> 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**

There are no public water systems in Long Lake Township. All 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. Map 6 illustrates the general depths to groundwater in the Township.

### **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

<sup>6</sup> Michigan Natural Features Inventory Website, September 1999.

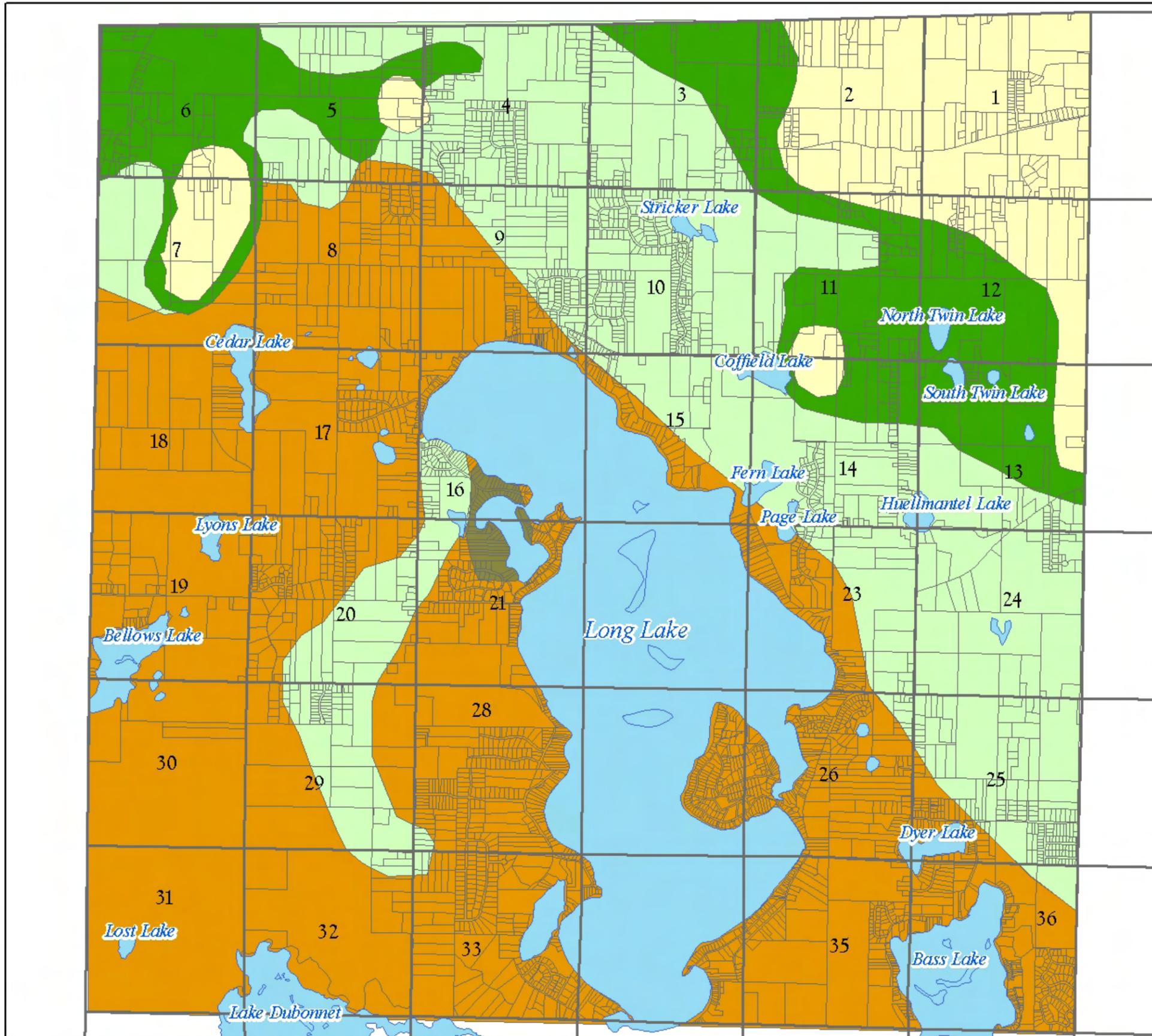
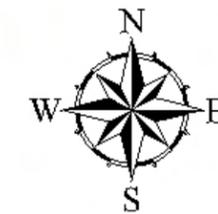
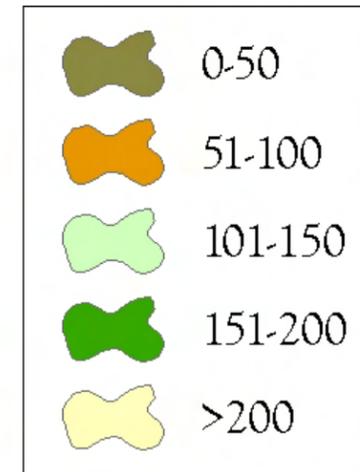
on natural features has yet to produce irreversible change. More importantly, there is a growing recognition of the potential threat and a need to take special care of the community's resources.

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.

# Map 6 Long Lake Township

Grand Traverse County, Michigan

Generalized Depth to  
Water-bearing Deposits



Source: Grand Traverse  
County and Michigan  
Department of Natural Resources

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Back of Map 6

## CHAPTER 3. DEMOGRAPHICS

Understanding the trends of population growth or decline in Long Lake Township is an essential component for the creation of a workable Comprehensive Plan. Trends of the past and future projections help create a vision of the type and amount of development associated with the population. Further, comparing the Township to the neighboring Townships, Grand Traverse County and the State of Michigan help put the Township plan in a regional context and create a well-rounded analysis.

The U.S. Census Bureau indicates that the population of Long Lake Township grew to 7,648 persons in the year 2000, an increase of 1,671 residents since 1990. Table 2-1 shows the trends of population for Long Lake Township, Grand Traverse County and Michigan from 1960 to 2000 and the rate of population change per decade.

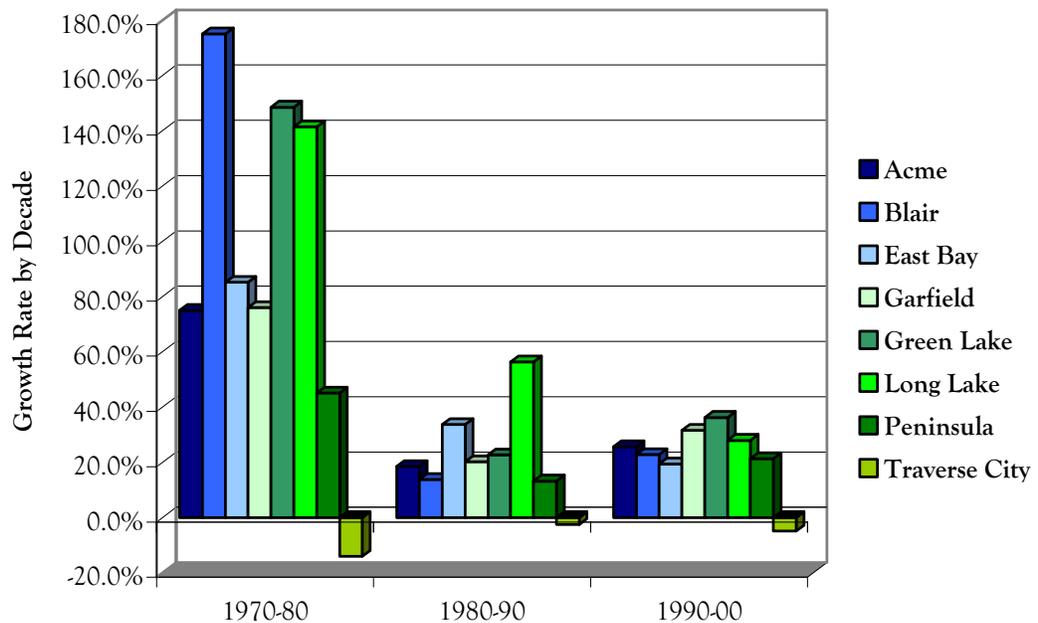
**Table 2-1**  
**Population and (Rate of Change) from 1960 to 2000 <sup>7</sup>**

<b>Years:</b>	<b>1960</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>
<b>Long Lake Township</b>	1,037	1,584	3,823	5,977	7,648
10-year rate of change	(n/a)	52.8%	141.4%	56.3%	28.0%
<b>Grand Traverse County</b>	33,490	39,175	54,899	64,273	77,654
10-year rate of change	(n/a)	17.0%	40.1%	17.1%	20.8%
<b>State of Michigan</b>	7,823,980	8,875,068	9,292,078	9,295,297	9,688,555
10-year rate of change	(n/a)	13.4%%	4.7%	0.03%	4.2%

It is also useful to compare rates of population growth and decline with nearby neighbors to look for any local trends that may depart from other similar communities. Table 2-2 compares the rates of change found in Long Lake Township with those found in Green Lake, Blair, East Bay, Acme, Peninsula and Garfield Townships as well as the City of Traverse City. These communities constituted about 86% of the area's population and, as the center city and first ring suburban communities, they share similar characteristics.

<sup>7</sup> Data drawn from the Long Lake Township 1997 Master Plan, the Grand Traverse County Master Plan, Current Assessment Report, and the U.S. Census Bureau, 2000 Census.

Figure 1. Comparative Rates of Growth 1970-2000



**It should be clearly understood that although the rate of growth is decreasing, the actual population of the Township continues to expand.**

The extremely rapid rate of growth in the County in the 1980s is very apparent in this figure. Clearly, Long Lake Township has shown substantial rates of population growth throughout the past four decades, far outstripping the pace of growth in the State and even in the County. Although the rate of growth has declined somewhat since 1990, Long Lake Township still ranks among the fastest growing communities in the County.<sup>8</sup> Of course, it should be clearly understood that although the rate of growth is decreasing, the actual population of the Township continues to expand.

While the raw increase in population and the rate of growth is important, a review of the breakdown of the Township in terms of age also reveals the nature of change that is occurring in the community. Such measures as median age and average household size reveal important trends about land use, facility and service demands, today and into the future.

<sup>8</sup> Grand Traverse County Master Plan, *Current Assessment Report*, August, 2001.

Table 2-2 provides a twenty-year comparison of the age breakdown of the Township's population. This data is assembled in life stage breakdown to be consistent with the format used in the Township's 1997 Master Plan. This approach is helpful because it recognizes the differing needs of the population during certain phases of life (i.e., ranging from pre-schoolers to the elderly).

**Table 2-2**  
**Long Lake Township**  
**1980 to 2000 Comparative Age and Life Cycle Distribution<sup>9</sup>**

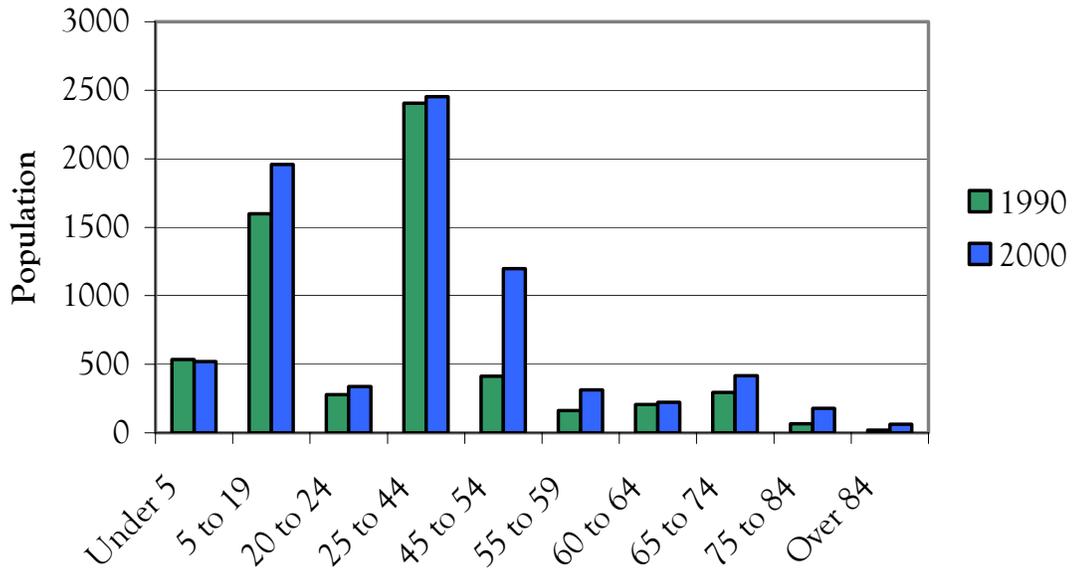
Age-Life Cycle	1980		1990		2000	
	Number	%	Number	%	Number	%
Under 5 - Preschool	410	10.7	536	8.9	518	6.8
5 to 19 - School Age	1,060	27.7	1,599	26.7	1,957	25.6
20 to 44 - Family Formation	1,617	42.3	2,628	44.0	2,789	36.5
45 to 64 - Empty Nest	488	12.8	835	14.0	1,730	22.6
65 to 74 - Seniors	174	4.6	249	4.2	415	5.4
Over 75 - Elderly	74	1.9	130	2.2	239	3.1

The 2000 Census reports that the current median age for Long Lake Township is 35.9 years, as compared to 30.8 years<sup>10</sup> old in 1990. The median age for both Grand Traverse County and the State of Michigan were reported to be 37.7 years and 36, respectively. Thus, Long Lake Township's population is slightly younger overall than that of the County, and generally reflective of the state. But it is also true that the Township's population is getting older overall, with fewer pre-schoolers both in real terms and as a percentage of the total population and with the cohorts in school and the family formation years declining as a percentage of the total. This demographic shift suggests that as families and residents mature, future land use plans and community services will need to take the needs of this older population into account. It may also suggest a need for expanded efforts to increase the proportion of the population in the family-forming years. Measures such as efforts to increase affordable housing and provide services to attract families may be considered.

<sup>9</sup> Data drawn from the Long Lake Township 1997 Master Plan, and the U.S. Census Bureau, 2000 Census.

<sup>10</sup> Williams & Works calculated median age from 1990 U.S. Census STF-3 Age detail.

Figure 2. Comparison of Age Breakdown, 1990 - 2000



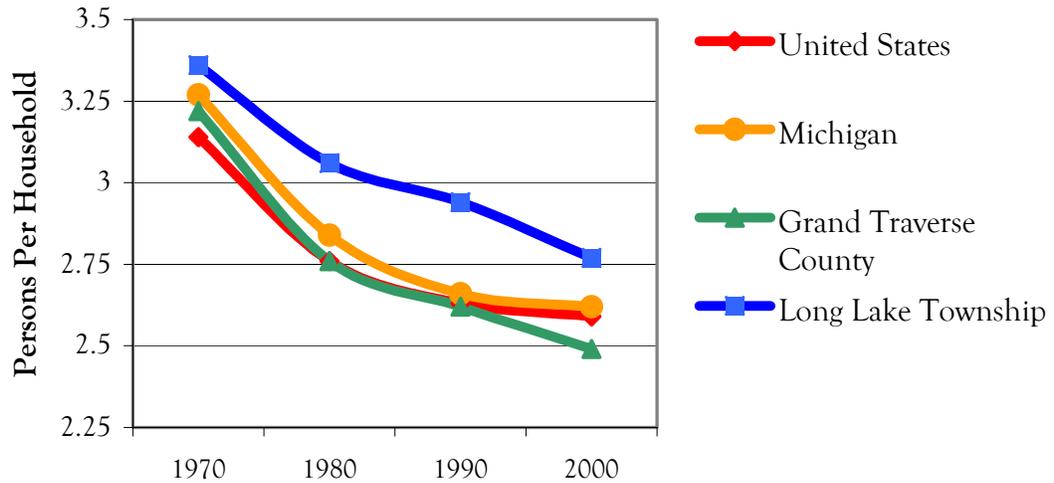
**A real increase in the number of older residents may be the result of in-migration of empty nesters seeking the recreational amenities and natural beauty of the community.**

This data is presented in Figure 2 above which presents a slightly different impression. The numbers of young people in the Township continue to increase slightly. However, the most striking difference is the significant increase in the 45 to 64 year old cohort - the empty-nesters. This cohort typically remains in the workforce with significant levels of disposable income. In 1990, this group represented about 14% of the Township’s population. By 2000, it accounted for over 22%; and it increased in real numbers by 895 persons, an increase of 107%. It is estimated that much of this increase results simply from the aging of the previous cohort, but about 20% to 25% is likely the result of in-migration of empty nesters seeking the recreational amenities and natural beauty of the community.

Another important measure of population shifts is the changing number of persons per housing unit, or household size. Since the mid-twentieth century, families and households have been decreasing in size. Long Lake Township is no exception to this trend. By the 2000 Census, the Township’s average household had declined to 2.77 persons from 2.94

in 1990, a decline of nearly 6% in ten years. Nevertheless, when compared with the County, state and nation, the Township’s household

**Figure 3. Trends in Household Size**



size remained slightly greater. This measure, when coupled with the decreasing percentage of the population represented by pre-school children and the increase in empty-nesters, suggests that the next twenty years or more may be characterized by a demand for more numerous housing units, but housing fewer persons.

**POPULATION PROJECTIONS**

**Population projections help give a sense of scale to future land use requirements as well as the demand for various public services and capital improvements**

For the purposes of this Plan, statistical averaging techniques were utilized to project the Township’s population growth to the year 2025. These approaches are adequate to give a general sense of growth trends; but they have limitations, especially in areas of rapid growth or decline that may run counter to statistical trends.

Nevertheless, these approaches do help give a sense of scale to future land use requirements as well as the demand for various public services and capital improvements. The following summarizes the projection techniques.

**The Constant Proportion** (or ratio) method of projecting population assumes that Long Lake Township will continue to represent the same

percentage of the County's projected population in the years 2010, 2020 and 2025 that it represents today. Using the population projections for Grand Traverse County prepared for the recently completed update of the County Master Plan, the following illustrates the results of the constant proportion method as it applies to Long Lake Township.

CONSTANT PROPORTION METHOD				
	2000	2010	2020	2025
	<u>Population</u>	<u>Population</u>	<u>Population</u>	<u>Population</u>
	<u>Population</u> *	<u>Projection</u>	<u>Projection</u>	<u>Projection</u>
Grand Traverse County per County Plan	77,654	85,730	93,806	98,683**
Long Lake Township	7,648	8,443	9,239	9,719

Percent of County's total 2000 population residing in Long Lake Township = 9.849%.

\* Both based on 2000 U.S. Census.

\*\* Note: The County Plan did not include a 2025 projection. This figure is based on a 5-year extension of the growth rate reflected in the County Plan projections from 2000 to 2020.

**The Growth Rate** (or geometric) method projects future population growth or decline based on the rate of growth in the Township in the past. However, this technique can yield strikingly different results depending on the period of time used to determine past growth. For example, during the period of 1970 through 1980, the Township grew at an annual rate of over 14%, expanding from a mere 1,584 persons in 1970 to 3,823 by 1980. However, during the 1990s, the annual rate of growth had slowed to under 3% per year.

To be conservative, this Comprehensive Plan uses the 1990 to 2000 rate of growth for the growth rate population projection. Using any other period of time could likely result in projections that are unrealistic in the most probable growth scenarios. Using a longer-term time frame for the analysis, would skew the rate of growth due to the unsustainable boom cycle experienced in the 1970s and 1980s. According to the U.S. Census, the population of Long Lake Township grew from 5,977 in 1990 to 7,648 in 2000. This illustrates a total rate of growth of 28% over ten years or a compounded annual rate of growth of 2.49%.

## GROWTH RATE METHOD

	Average Annual Growth Rate				
	<u>1990-2000</u>	<u>2000*</u>	<u>2010</u>	<u>2020</u>	<u>2025</u>
Long Lake Township	2.49%	7,648	9,786	12,522	14,165

\* Per U.S. Census.

**The Arithmetic Method** is similar to the growth rate method in that population projections are based on growth that occurred in preceding decades. This method, however, bases population growth on the overall average increase in the number of persons per year, rather than on growth rates. The following projections are based on the average increase of 167 persons annually between 1990 and 2000 in Long Lake Township, based on the U.S. Census.

## ARITHMETIC METHOD

	Average Annual Increase		2000		
	<u>(Number of Persons)</u>	<u>Population *</u>	<u>2010</u>	<u>2020</u>	<u>2025</u>
Long Lake Township	167	7,648	9,319	10,991	11,827

\* Per U.S. Census.

**The Building Permit** method may be the most reliable projection method because it portrays the growth based on current building permit data. In 2001, a total of 76 new single residential building permits were issued in the Township and 12 mobile home permits were issued. In 2002, these figures were 109 and 40, respectively. These figures yield a two-year average of 118.5 new residential units annually. Assuming that the patterns of the recent past are to continue, it is possible to project population based on the rate of new home construction, including new mobile home sitings. According to the U.S. Census, there were 2,742 households in the Township in 2000, resulting in an average household size of 2.77 persons. If the Township is to add 118.5 homes per year with each home accounting for 2.77 persons, then each year the Township's population will grow by about 328.2 persons. The following

table projects the implications of these figures in terms of population growth.

#### BUILDING PERMIT METHOD

Average No Permits/Year	Pph	2000 Population*	2010	2020	2025
118.5	2.77	7,648	10,930	14,212	15,823

\* Per U.S. Census.

**Long Lake Township  
can expect to grow by  
over 5,200 persons or  
nearly 1,900  
households in the next  
twenty years.**

The anticipated population levels for the Township using each of the population techniques are summarized below. By averaging the results of these methods, it is reasonable to predict that the population will approach approximately 9,600 by the year 2010 and exceed 12,800 by 2025.

#### POPULATION PROJECTION SUMMARY

	<u>2000</u>	<u>2010</u>	<u>2020</u>	<u>2025</u>
Constant Prop.	7,648	8,443	9,239	9,719
Growth Rate	7,648	9,786	12,522	14,165
Arithmetic	7,648	9,319	10,991	11,827
Building Permits	<u>7,648</u>	<u>10,930</u>	<u>14,212</u>	<u>15,823</u>
<b>Average</b>	<b>7,648</b>	<b>9,619</b>	<b>11,741</b>	<b>12,883</b>

These projections differ somewhat from those presented in the Township's 1997 Master Plan. That document anticipated that the 2000 population would have increased to 9,017, based on the earlier growth rates experienced in the community. As a result, taking those rates of growth into the future, the 1997 Plan anticipated that the Township's population would reach over 14,000 by 2015.

Based on the recent building permit activity in the Township, it is reasonable to question the estimates in the 1997 Plan. To achieve a population of over 14,000 by 2015, the rate of new residential building would need to increase to over 150 permits per year.

Nevertheless, the above projections still anticipate significant growth in the community which will have important implications on a broad range of land use and planning considerations.

## PLANNING CONSIDERATIONS

Accurate predictions of population growth patterns must take into account a broad range of variables well beyond the scope of this Plan. However, the primary conclusion of this Chapter is that the Township can expect further growth that will make demands on services and facilities. As indicated in the following chapters, demands for housing and the demands placed on transportation and utility infrastructure are directly dependant on population growth, and the projected 5,200 additional persons and 1,900 additional households in the Township by 2025 will create important and permanent changes in the community character.



## CHAPTER 4. HOUSING, INCOME & ECONOMIC DEVELOPMENT

This chapter analyzes the housing and economic development trends within the community. It is useful to compare housing trends with the population projections so that housing shortages or surpluses can be estimated. In addition, comparisons of housing and land values against the incomes of current residents can help reveal the relative affordability of the local housing stock for the residents of the community.

### EQUALIZED VALUE GROWTH

**Comparisons of housing and land values against the incomes help reveal the relative affordability of the local housing stock.**

Property values are a key measure of economic growth and the financial strength of a community. Property values reflect both investment in new growth and the degree of growth in the value of those investments. Annually the assessors of each jurisdiction report total valuation within their respective jurisdictions. These are typically broken down by property classification and these reports can provide an illuminating impression of the character of a community.

The total state equalized value (SEV)<sup>11</sup> for Long Lake Township for 1999 was \$225.2 million and \$256.9 million for 2000, representing a one-year growth rate of 14%. By 2001, the values in the Township totaled \$299.3, and by 2002, values had increased to \$344.3, reflecting annual rates of growth of 16.5% and 15.0%, respectively. By comparison, during the same period, SEV in Grand Traverse County increased by 12% from 1999 to 2000, by about 14.5% from 2000 to 2001 and by 10.9% from 2001 to 2002.<sup>12</sup> Table 3-1 below compares the rates of overall SEV growth for Long Lake Township and the other developing portions of the County.

Collectively, the communities reflected in Table 3-1 represent nearly three-quarters (71%) of the equalized values in the County. With only one minor exception, all of the communities experienced double digit rates of growth in values each year through 2002. During the first four years of this analysis, the economy was still relatively strong; but, by the latter part of 2001 and during 2002, the regional and national economies had weakened, but investment and growth in value in the urbanizing parts of the County were still evident.

<sup>11</sup> Equalized values should represent about 50% of the actual market value of real property in the community.

<sup>12</sup> Grand Traverse County Equalization Reports.

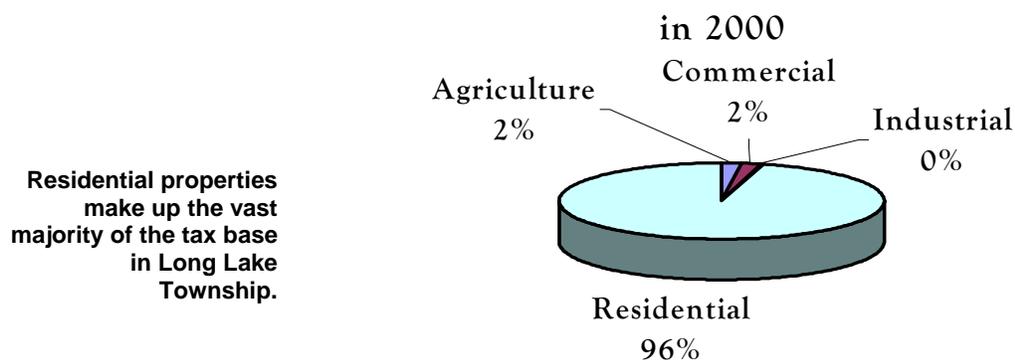
Table 4-1. Total Equalized Values and Rates of Change (in million \$)

Years:	1998	1999	2000	2001	2002
<b>Long Lake Township</b>	\$199.4	\$225.2	\$256.9	\$299.3	\$344.3
Rate of change	(n/a)	12.9%	14.1%	16.5%	15.0%
<b>Green Lake Township</b>	\$126.7	\$149.6	\$170.1	\$203.7	\$227.4
Rate of change	(n/a)	18.1%	13.7%	19.7%	11.6%
<b>Garfield Township</b>	\$400.7	\$531.3	\$590.0	\$658.9	\$720.4
Rate of change	(n/a)	32.6%	11.0%	11.7%	9.3%
<b>Blair Township</b>	\$97.5	\$124.6	\$141.3	\$161.2	\$177.6
Rate of change	(n/a)	27.8%	13.4%	14.1%	10.2%
<b>East Bay Township</b>	\$259.0	\$297.0	\$326.8	\$368.9	\$413.7
Rate of change	(n/a)	14.7%	10.0%	12.9%	12.1%
<b>Peninsula Township</b>	\$304.2	\$349.0	\$386.6	\$486.7	\$539.1
Rate of change	(n/a)	14.7%	10.8%	25.9%	10.8%
<b>Acme Township</b>	\$185.1	\$213.4	\$241.8	\$268.0	\$300.2
Rate of change	(n/a)	15.3%	13.3%	10.8%	12.0%
<b>Grand Traverse County</b>	\$2,244.9	\$2,719.0	\$3,035.1	\$3,474.4	\$3,854.3
Rate of change	(n/a)	21.1%	11.6%	14.5%	10.9%

It is interesting to note that in 1995, Long Lake Township's total equalized value was \$145.9 million. By 1999, it had increased to \$225.2 million, an annual rate of increase of 13.6%. Thus, the rates of growth shown in Table 4-1 appear to be extensions of a pre-existing growth trend in the community.

It is also important to understand the breakdown of property values by classification. These figures generally parallel land use and reflect the degree to which the local tax base is diversified among uses. Figure 4 illustrates the breakdown in Long Lake Township.

Figure 4. Breakdown of Property Values by Class



It is clear from an examination of Figure 4 that Long Lake Township's tax base is heavily weighted toward residential development. As discussed in Chapter 5, the community is characterized by a significant

area of formerly agricultural lands that have gone out of production. These are likely future development sites and, as a result, are normally classified as residential for assessment purposes. This, however, is not a relatively new trend. In 1995, residential land class properties accounted for 95.9% of the total equalized value of the real property in the community.

As reflected in Table 4-1, Long Lake Township has kept pace with the other most developed portions of the County. While not matching the pace of growth seen in the more urbanized areas with public utility systems, the Township clearly is witnessing significant investment in new development. In 1995, Long Lake Township constituted about 8.1% of the total equalized value in the County. By 2000 it constituted 8.4%, and by 2002 it represented 9.0% of the County.

Current trends indicate that the SEV has continued to rise in all of the Townships in Grand Traverse County at rates significantly greater than inflation. Recently, the annual rate of inflation has been under 3% percent, while the County SEV rate of increase is 12%. If these trends continue, the Townships surrounding the City of Traverse City, including Long Lake Township, will continue to be the major investment centers in the area. Proximity to the central business district (downtown Traverse City), the higher population concentration that require more services, and the existing infrastructure, all may be attributes that facilitate investment and therefore greater property values. In the case of Long Lake Township, the area's natural amenities and recreational lifestyle within a short commute to the City will certainly be important magnets for growth.

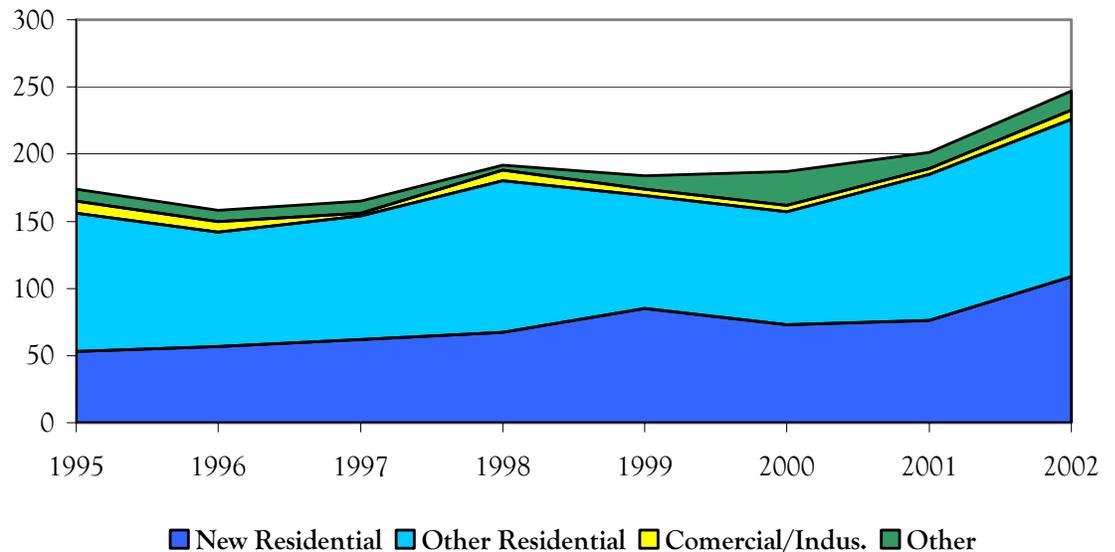
### **Building Permits**

Building permits are a good indication of investment in the community. As Figure 5 indicates, the number of total building permits issued in Long Lake Township since 1995 has remained relatively constant.<sup>13</sup> The "New Residential" category is limited to single-family housing, while the "Other Residential" category includes alterations, accessory buildings and mobile homes. The predominance of residential development in the Township is clearly apparent from the distribution of building permits reflected in Figure 5.

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<sup>13</sup> Grand Traverse County Construction Code Department.

Figure 5. Long Lake Township Building Permits



**Larger and more expensive homes are beginning to proliferate in the Township.**

Commercial and industrial building permits over the seven year span represented by Figure 5 only accounted for a total of 48 total permits, or only about 3% of all construction activity in the Township. By way of comparison, in the County in general, commercial and industrial construction typically accounts for 10-12% of total construction activity.

In 2000, the share of total local equalized values represented by residential development was approximately \$242.3 million in equalized value, or about \$484.6 million in market value. The U.S. Census reported that in 2000 there were 3,175 housing units in Long Lake Township. The vast majority of these (2,714, or 85.5%) were found in single-family homes. Applying the total estimated market value of residential property in the Township in 2000 to the total number of housing units reveals that the average value of a housing unit in Long Lake Township in 2000 was \$152,600. This crude calculation should be compared with the median housing value as reported by respondents to the U.S. Census questionnaire. The Census reports that the median dollar value reported in the Township was \$132,500 in 2000. Placing this figure in perspective, in Grand Traverse County overall, the Census reported a median home value of \$130,400 and in Michigan it was

\$115,600, in 2000. Table 4-2 compares median home values, median mortgage payments and rents in Long Lake Township, Grand Traverse County and the State.

<b>Table 4-2. Comparison of Housing Values and Costs in 2000</b>			
	<b>Median Home Values</b>	<b>Median Monthly Mortgage Payments</b>	<b>Median Monthly Rents</b>
Long Lake Township	\$132,500	\$930	\$656
Grand Traverse County	\$130,400	\$936	\$614
Michigan	\$115,600	\$972	\$546

Nearly 85% of the total housing stock in Long Lake Township is made up of owner-occupied dwellings. As rental properties typically change hands much more frequently, this suggests a very stable residential population.

### **Employment**

With the relatively small extent of commercial and industrial development in the Township, most of the Township's residents find their employment outside of the community. According to the 2000 Census, the mean travel time to work for Township residents was 20.8 minutes with over 95% of the workforce traveling by private automobile to work. This is, of course, indicative of the "bedroom community" nature of the Township where most of the workforce finds employment in other jurisdictions.

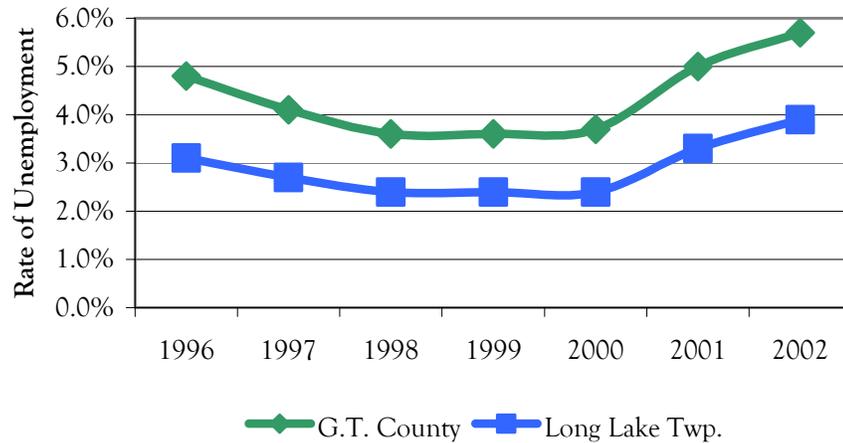
In 2000, 75% of the population aged 16 and older within the Township was employed; and in 2000, the Township reflected a remarkable 2.4% rate of unemployment. Of course, since the Census figures were collected, unemployment has increased significantly. Figure 6 reflects the unemployment rates through the end of 2002, based on the annual averages in Grand Traverse County and Long Lake Township.<sup>14</sup>

The Grand Traverse County unemployment rate steadily dropped from 4.8% in 1996 to 3.6% in 1999. The year 2000 unemployment rate of

<sup>14</sup> Michigan Department of Career Development, Labor Market Information, website.

3.7% indicated the first increase in four years and signaled the beginnings of the softening in the economy. By 2002, the rate in the County had climbed to 5.7%, while the rate in the Township had increased to 3.9%.

**Figure 6. Comparative Unemployment Rates**



**Employment represented by the Long Lake Township residents consists largely of white collar positions.**

Employment represented by the Long Lake Township residents consists largely of white collar positions. While the Township’s land cover patterns would suggest a fairly significant agricultural employment component, this is not reflected in the Census figures. Management and professional occupations account for fully one-third (33.2%) of all employment, while service occupations and sales/office occupations account for 18.1% and 27.8%, respectively. Remaining occupational sectors include construction and maintenance operations (10.2%) and production and transportation (10.8%).

Among the industrial sectors represented in the Long Lake Township workforce, Education, Health and Social Services ranks the highest, representing 23.1% of total employment. This is followed by Retail Trade (13.1%), Manufacturing (11.3%), Arts, Entertainment Hospitality (10%) and Construction Trades (8.5%). This breakdown parallels those found in Grand Traverse County, but differ somewhat from the State overall, where the Manufacturing sector still ranks first followed by Education, Health and Social Services.

**Income**

The higher skilled jobs in the Township’s workforce are reflected in its income, as well. The 2000 Census reported a median household

income in the Township of \$48,826 and a per capita income of \$21,943. Interestingly, the Township's median household income of \$48,826 exceeds that of Grand Traverse County (\$43,169), but the reverse is true for per capita income. The County reported per capita income of \$22,111 in 2000. However, the difference between household incomes in the two jurisdictions is much more significant than per capita income. This is probably due to the slightly larger household size in the Township with 2.77 persons per household versus 2.49 persons in the County.

It is helpful to place these income figures in a larger context, too. In the State of Michigan in 2000, median household income was reported at \$44,667. Thus, Long Lake Township slightly exceeds median household income reported both for Grand Traverse County and for Michigan at large. This relationship was also apparent in 1990 when the Township's median household income of \$33,818 was slightly greater than the County (\$29,034) and the State (\$31,020).

**Long Lake Township reported 29% of the workforce having completed college degree programs in 2000.**

### Educational Attainment

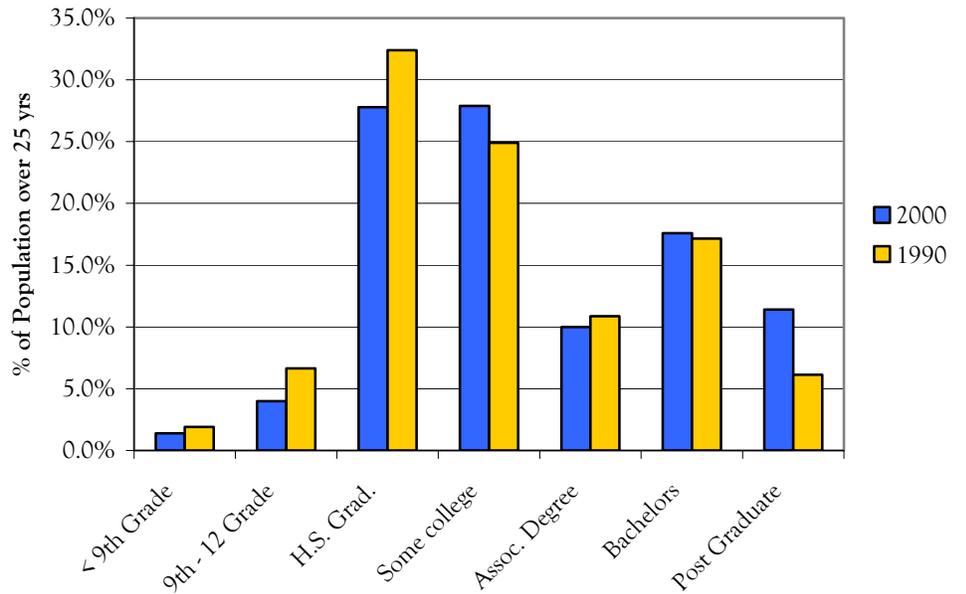
The level of education of a community's population is another measure of its economic potential. In Long Lake Township, over two-thirds (66.9%) of the population has had education beyond high school. This is compared with about 61.4% in the County. In terms of the portion of the workforce with bachelors or graduate degrees, the Township reported 29% of the workforce completing degree programs, compared to 26.1% in the County. While these differences are not remarkable, they are consistent with the greater share of the Township's population involved in white collar and professional positions. In Michigan overall, only 52.1% of the population has had some education beyond high school.

More significant, however, are the increases in educational attainment since 1990 in Long Lake Township. At that time, 59% of the population had ever attended post-secondary education; and only 23.2% of the population had bachelors or graduate degrees. In ten years, that percentage had risen to 29% of the population for a rate of increase of 25% in a decade.

Figure 7 below presents the shift in educational attainment within the population of Long Lake Township between 1990 and 2000. Significant

differences are apparent in terms of those attending some college and in those that have completed graduate degrees.<sup>15</sup>

Figure 7. Shifts in Educational Attainment



<sup>15</sup> U.S. Census, STF 3 for 1990 and DP-2 for 2000.

## CHAPTER 5. LAND USE AND DEVELOPMENT PATTERNS

In 2000, Grand Traverse County completed a new detailed current land use map. The maps presented in this Chapter are drawn from those maps with minor adjustments to more accurately reflect known changes in land use. This new mapping alone is an excellent resource for planning purposes, and it becomes an even more powerful tool since it is possible to make comparisons between the 2000 Current Land Use Map and the 1990 Land Use Map on a local jurisdiction basis. These comparisons can gauge how much land, if any, has changed uses over the last ten years and what kind of change occurred.

### LAND USES

There are approximately 22,690 acres in Long Lake Township. The following table breaks the existing land cover in the Township into six consolidated existing land use categories. This data presents the mapped information from 1990 and 2000 which is illustrated in Map 7.

Consolidated Land Cover	1990		2000	
	Acres	% of Total	Acres	% of Total
Forested/Undeveloped	11,900.4	52.4	11,359.9	50.1
Agricultural	4,735.1	20.9	4,550.4	20.1
Residential	2,296.0	10.1	2,939.8	13.0
Commercial	12.0	0.1	21.5	0.1
Industrial	9.0	0.04	80.9	0.4
Institutional	6.6	0.03	6.6	0.03
Surface Water	3,732.2	16.4	3,732.2	16.4
<b>TOTAL</b>	<b>22,691.3</b>		<b>22,691.3</b>	

These consolidated land cover classifications are intended to aid the review of the mapped information and to enable a generalized perspective when considering patterns of change. The consolidated classifications have been drawn from the forty-eight detailed

classifications provided by 3DI.<sup>16</sup> This consolidation was established to help generalize the land use within the community, which provides opportunity for broad patterns to appear and to identify the trends that are occurring in the Township and in the larger County. By comparing the land cover analysis completed from the 1990 satellite imagery with the 2000 information, it is possible to identify and quantify areas of change in land cover.

**Between 1990 and 2000, about one square mile of new residential development was added in Long Lake Township.**

Map 7 provides a side-by-side comparison of land use change from 1990 to 2000. The predominate features apparent in both maps reflected in Map 7 are the lakes and the forested and undeveloped lands. Agricultural lands appear in sizeable areas of the Township, although there was a clear decline in farming activity during the decade. At the same time, patterns of residential development around the lakes and in the emerging patterns in the northern and southeastern portion of the Township are apparent.

Examining the changes that have occurred from 1990 to 2000, 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. The combined area of forested/undeveloped land and agricultural lands declined by about 725 acres while residential areas increased by 643.8 acres and commercial and industrial areas increased by 81.4 acres.

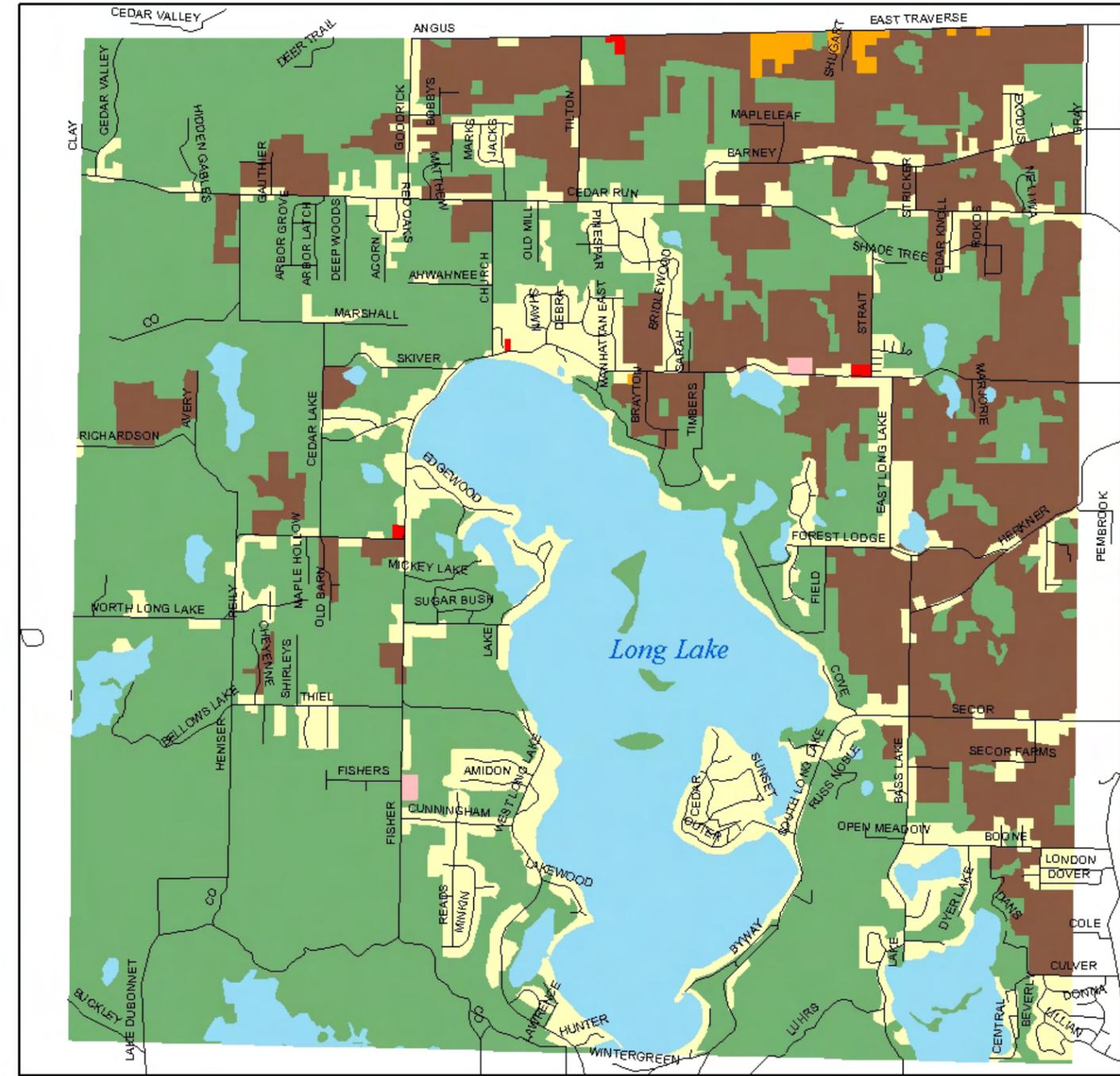
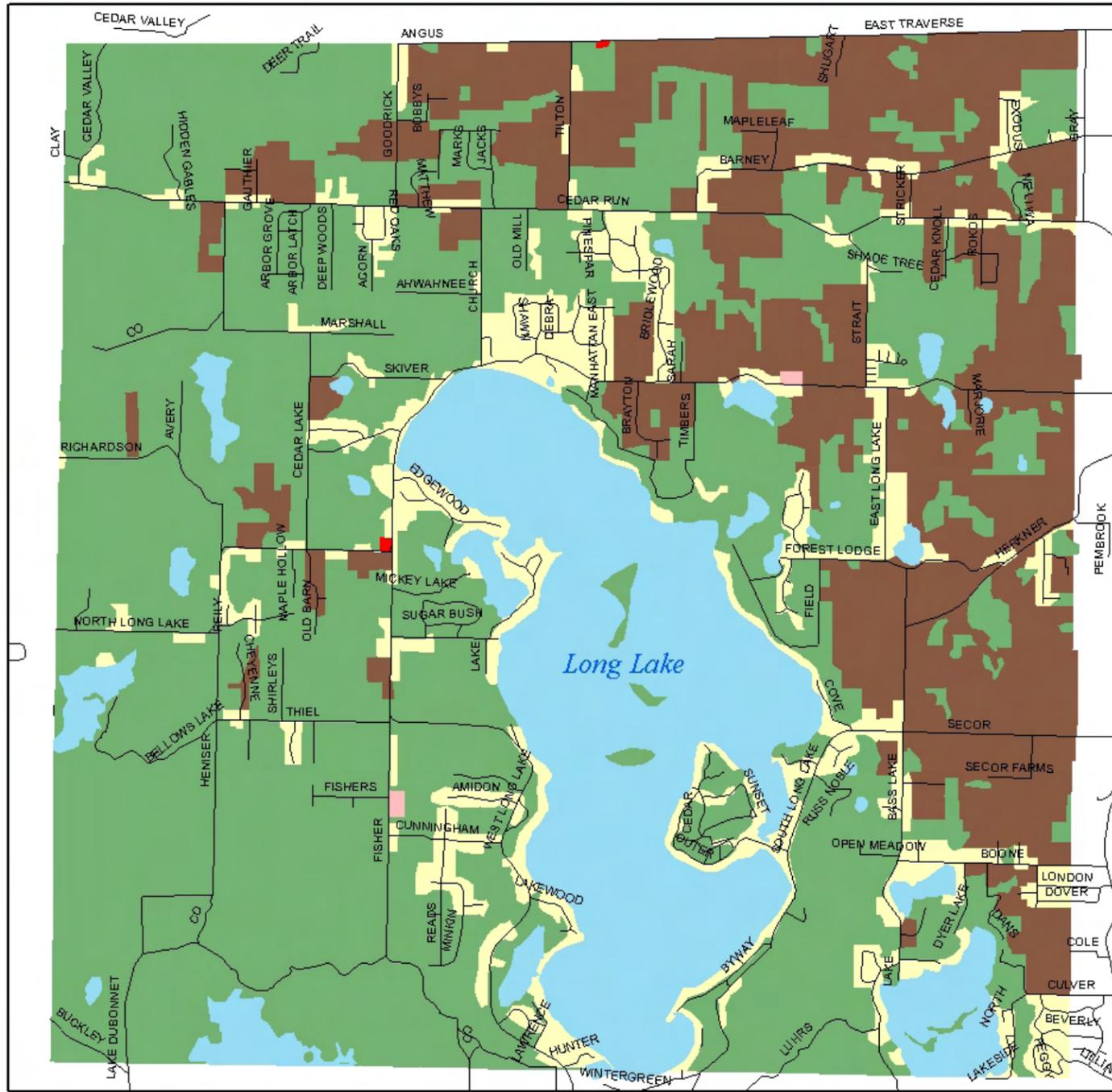
Map 8 reflects the major areas of land use change between 1990 and 2003. Predominate features include the introduction of industrial uses along M-72 in Sections 2 and 3, residential development along Cedar Run Road including a significant development in Section 4. Also apparent are scattered residential developments west of Long Lake in Sections 28, 29 and 33 and near Dyer Lake and Secor Road.

The maps in this Chapter were prepared digitally from satellite imagery and should be considered generally accurate. Some adjustments have been made from the digital process based on local knowledge, but it is probable that further refinements may be necessary. In addition, the Township staff has identified new developments, subdivisions and site condominiums that have been completed since the 2000 satellite imagery was developed. However, this map may still include some details that require further adjustment. For example, the computer analysis recognized the significant land cover change that occurred when Traverse City West High School was developed.

<sup>16</sup> In 2000, while working with the Grand Traverse County Planning Department, Williams & Works together with 3Di undertook a land cover update using spatially enhanced Landsat TM7 satellite imagery and automated change analytical processes to identify changes in the land uses in the County since 1990. The results of that analysis are reflected in Map 8.

1990

2000



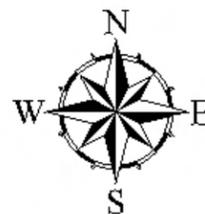
# Long Lake Township

Grand Traverse County, Michigan

Source: (3D)i

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# Map 7 Land Use

## Land Use

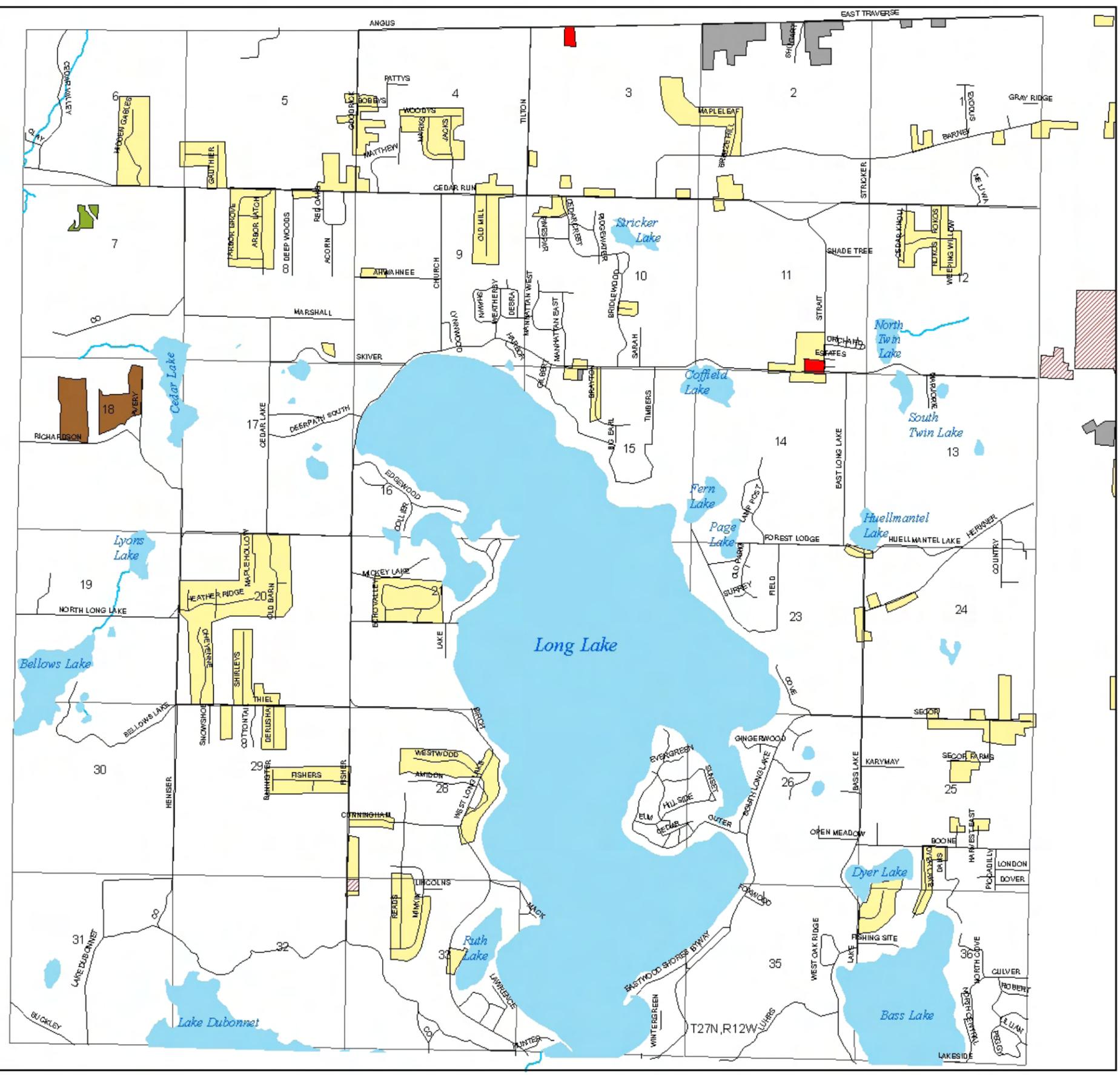
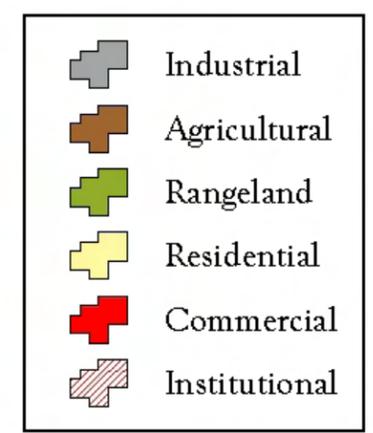
- Commercial
- Industrial
- Agricultural
- Residential
- Institutional
- Forested / Undeveloped

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# Map 8 Long Lake Township

Grand Traverse County, MI

Areas of Change 1990 to 2003



Source: (3D), Long Lake Township,  
Grand Traverse Co., and the Michigan  
Center for Geographic Information.

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Back of Map 8

However, the system misinterpreted the facility as an industrial use rather than an institutional use. This is still apparent in Map 8.

## CURRENT ZONING AND FUTURE LAND USE

The Township's current zoning map (see Map 9) is generally consistent with its existing future land use map (Map 10). 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.

In the northeast portion of Long Lake Township, the future land use map calls for a relatively low-density rural and agricultural pattern of development. However, the zoning map in this area includes a sizable area zoned for high density residential development. While there are few high density neighborhoods in the area presently, since more are encouraged by the Zoning Ordinance, the emerging pattern will depart significantly from that planned.

It should be noted that the area currently zoned for high density residential use is also an area with excessively deep groundwater making the development of high capacity production wells quite expensive. However, this factor may not be relied upon indefinitely as a bar for higher intensity uses, and the current planning exercise should address this inconsistency.

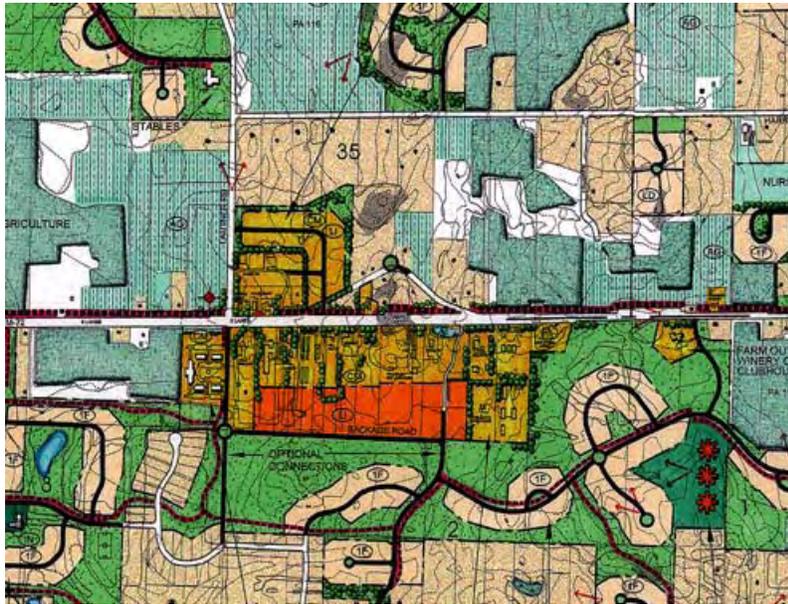
## SURROUNDING COMMUNITIES

Map 10 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. It should be noted that the future land use plan for Solon Township in Leelanau County was not available for the completion of this Plan. The "rural residential and agricultural designation" reflected on Map 10 for the boundary areas adjoining Solon Township are taken from Planning Maps incorporated in the Leelanau County website.<sup>17</sup>

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<sup>17</sup> Leelanau Government and Community Center Website, LIAA.org.

An examination of Map 10 reveals that the current future land use plans generally envision consistent uses along the mutual boundaries. Of course, patterns of development may begin to depart from the future land use maps; and if a community is not vigilant in the management of growth, future land use maps may be a poor reflection of current or likely conflicts. In addition, since these maps have generalized the future land use designations, it is possible that there may be pockets of land uses that are not reflected here.



**The M-72 Corridor Study illustrates potential patterns of growth and development along this important route. Source V. Nelhiebel.**

Nevertheless, the general pattern is reasonably consistent. A possible conflict may evolve along M-72 where Long Lake Township plans for a pocket of general commercial and industrial development on the south side of the right-of-way while Solon Township appears to be planning very low density residential and agricultural along the north side of the right-of-way. The West Traverse M-72 Corridor Study remarks that this area is currently characterized by “numerous drives and an unappealing character with metal buildings and open storage yards dominating the view from M-72.”<sup>18</sup>

Another area of potential conflict is the Gray Road corridor, south of M-72. In the Long Lake Township 1997 Master Plan, an area of “village residential” extends about one-half mile north and south of the Barney Road intersection, on the west side of the road. In Garfield Township to the east, the future land use map reflects a desire for “rural land” along the Gray Road right-of-way. However, in that plan, “rural land” is identified as lands where very low density residential and agriculture may be continued “for the greatest time possible.”<sup>19</sup> Garfield Township does not anticipate public water or sewer in this area and, therefore, anticipates densities of one unit per acre. The Long Lake Township plan for village residential in this area, together with the eventual connection from the Bugai/Gray/M-72 along the eastern Township boundary, will likely eventually force more intense patterns than currently anticipated by Garfield Township.

<sup>18</sup> Victor Nelhiebel/Land Architecture, *West Traverse M-72 Corridor Study*, August, 2002.

<sup>19</sup> Garfield Charter Township, *Comprehensive Land Use Plan*, rev. 2/13/02.

## CONFLICT AND CONSISTENCY REPORT

In 2002, the Grand Traverse County Planning Commission received an analysis and comparison of local future land use plans with the Focus 2020 County Master Plan, adopted in 1996. The purpose of this Conflict and Consistency Report<sup>20</sup> was to identify areas of the County where local community plans were at odds with the overall guidance provided in the County Plan.

In Long Lake Township, the report identified two areas of conflict. The first included most of the eastern third of the Township, north of Bass Lake. In this area, the Township's 1997 plan called for open space residential and agricultural development, while the County's 1996 growth management map included in the Focus 2020 plan anticipated that this area of the Township would show increasing signs of urbanization and reflected it in the Level 4 Growth Management area, or urban influence areas of the County. The report notes that:

“This may be less of a conflict than it initially appears. The Focus 2020 Plan anticipates that the Level 4 areas are likely to transition and this deviation may simply be a matter of different estimates of the timing of that outcome. Nevertheless, if the Township expects that this area will remain in agriculture for an extended period (i.e., fifty years or more) it will be important for the County and the Township to reach an understanding on the growth management standards to be applied to reach that outcome.”<sup>21</sup>

The second area is an emerging suburban-scale residential area north and west of Long Lake. Here the Township's plan calls for suburban or lake residential, while the Focus 2020 Plan reflected this area in either agriculture or rural preservation. The Conflict and Consistency report pointed out that the County Plan anticipated some development in this area, but the one unit per acre densities planned by the Township exceeded those called for by the County Plan. In reality, however, the patterns planned by the Township are well established in many areas of the community. As a result, the updated County Comprehensive Plan adopted by the Grand Traverse County Planning Commission in December 2002 has adjusted the growth management levels around Long Lake to reflect current patterns and the Township's plan. The

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<sup>20</sup> Grand Traverse County, *Conflict and Consistency Report*, April, 2002.

<sup>21</sup> Ibid.

final County Growth Management Map now shows the entire Long Lake shoreline in the Level 4 - Urban Influence Area.<sup>22</sup>

## PLANNING CONSIDERATIONS

**Residential uses will continue to expand and agricultural use will diminish.**

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.

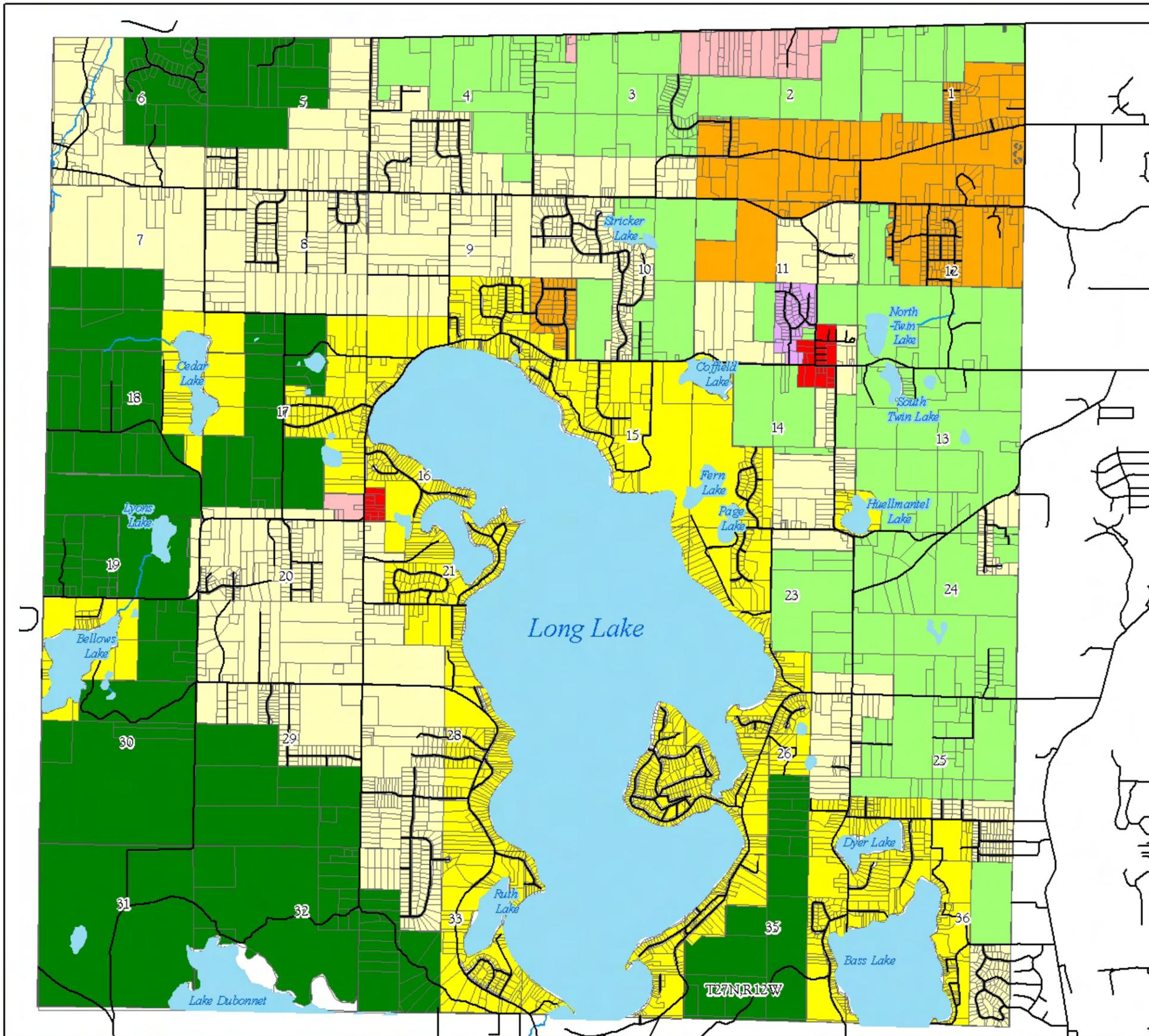
The land use patterns in Long Lake Township are generally established. Residential uses will continue to expand, and agricultural use will diminish. Some commercial and industrial uses are possible, and potentially desirable. But without public utilities, most development will be very land-consumptive;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

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<sup>22</sup> Grand Traverse County, *Grand Traverse County Comprehensive Plan*, December 2002.

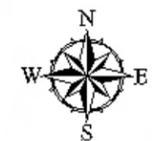
# Map 9 Long Lake Township Zoning Map

January 1, 2005



Zoning	
	LOW DENSITY RESIDENTIAL
	LAKE RESIDENTIAL
	HIGH DENSITY RESIDENTIAL
	GENERAL BUSINESS
	LOCAL BUSINESS DISTRICT
	AGRICULTURAL
	CONSERVATION RECREATION
	PLANNED UNIT DEVELOPMENT

Note: This is not an official zoning map.  
For reference purposes only.  
The official zoning map for Long Lake Township  
is on file at the Long Lake Township Hall.



Source: (3D)i, Long Lake Township,  
Grand Traverse Co., and the Michigan  
Center for Geographic Information.

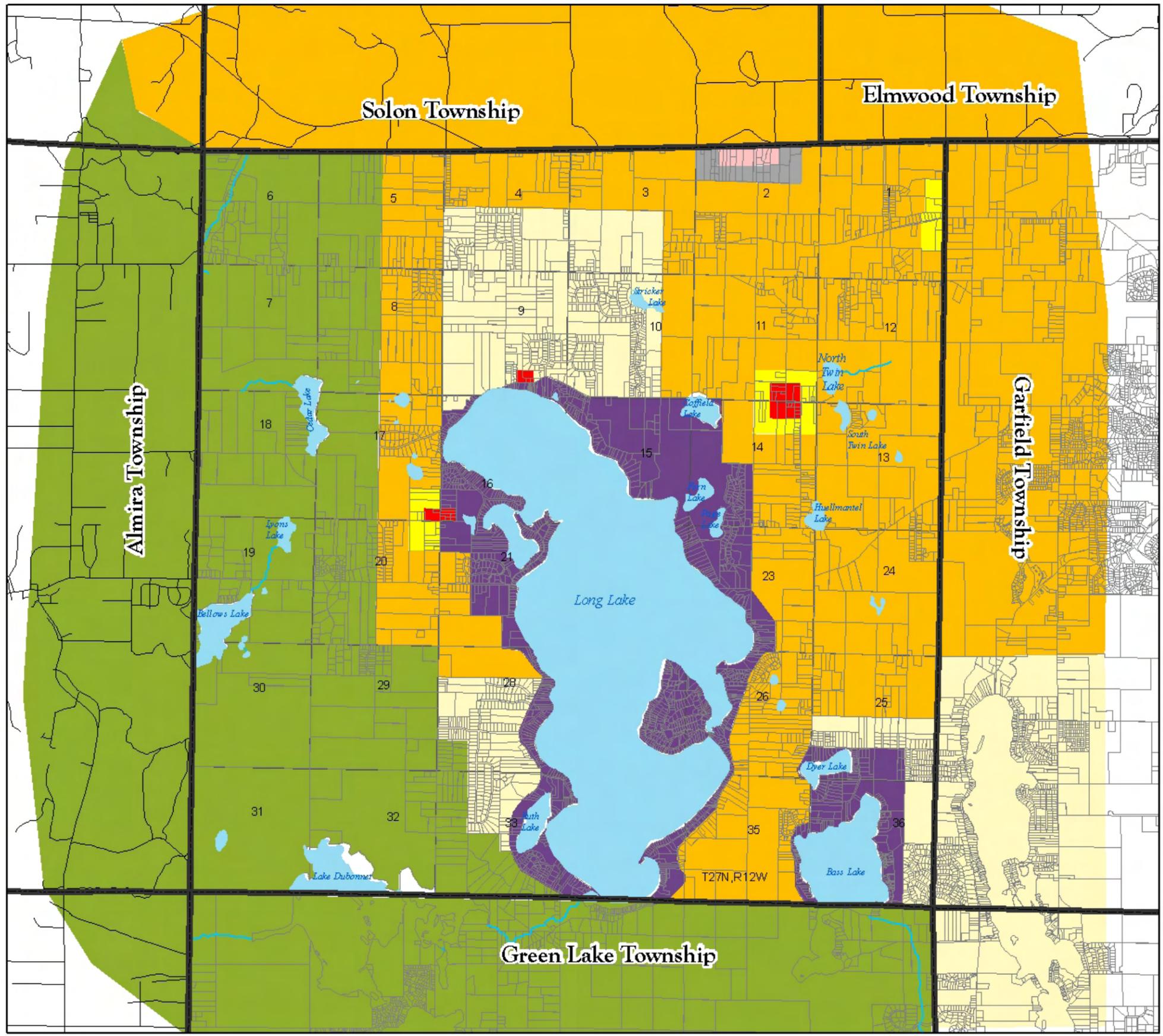
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# Map 10 Long Lake Township

Grand Traverse County, MI

1997 Future Land Use Composite



-  Conservation/Recreation
-  General Commercial
-  Industrial
-  Lake Residential
-  Local Commercial
-  Open Space Res/Agr
-  Suburban Residential
-  Village Residential

Note: The future land uses for the Townships surrounding Long Lake Township have been generalized and are not exact representations of surrounding future land use.



Source: (3D)i, Long Lake Township, Grand Traverse Co., and the Michigan Center for Geographic Information.

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## 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.

### TRANSPORTATION CONNECTIONS

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.

The 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.

Table 6-1 provides a breakdown of traffic counts on local road segments in the Township.

Road	Segment	Count	Date
W LONG LAKE	50' S OF LAWRENCE	2,504	8/1/97
W LONG LAKE	300' S OF LAWRENCE	1,722	6/11/96
SECOR	750 E OF BASS LAKE	5,091	7/30/97
SECOR	E OF BASS LAKE	3,956	6/13/96
THIEL	500' WEST OF WEST LONG LAKE	620	7/24/00
NORTH LONG LAKE	500' E OF EAST LONG LAKE ROAD	8,677	08/28/00
NORTH LONG LAKE	500' E OF RICHARDSON RD	2,805	7/24/00
NORTH LONG LAKE	W OF E LONG LAKE ROAD	9,628	08/28/00
WEST M-72	1000' WEST OF GRAY RD	11,106	7/24/00
SECOR	750' E OF BASS LAKE	4,353	5/30/00
HUELLMANTEL LAK	1/2 WY BWT HERKNER & E LONG LAKE	36	9/11/97
GRAY ROAD	0.1 MILE S OF M-72 (ELMWOOD TWP)	5,200	06/26/00
EAST LONG LAKE	600' N OF SECOR RD	3,531	5/30/00
EAST LONG LAKE	600' N OF SECOR	3,530	05/30/00
E LONG LAKE	600' N OF S LONG LAKE (SECOR )	3,109	8/1/97
E LONG LAKE	200' N OF SECOR	2,648	6/12/96
CEDAR RUN	500' W OF GRAY	2,544	5/24/96
CEDAR RUN	500' W OF GRAY RD	3,855	7/24/00
CEDAR RUN	250' EAST OF CEDAR VALLEY	2,582	7/24/00
BARNEY	W OF GRAY	797	6/6/97
WEST LONG LAKE	50' S OF LAWRENCE	2,343	5/30/00
N LONG LAKE	0.85 MILE W OF WEST LONG LAKE RD	2,489	8/1/97
HUELLMANTEL LK	750' W OF HERKNER	37	5/24/96
NORTH LONG LAKE	1000' W OF STRAIT RD - EBOUND	3,600	10/15/01
NORTH LONG LAKE	500' E OF E LONG LAKE ROAD - WBOUND	1,225	10/15/01
EAST LONG LAKE	750' S OF N LONG LAKE ROAD - NBOUND	430	10/15/01
NORTH LONG LAKE	BWT STRAIT & E LONG LAKE	10,375	10/15/01
STRAIT	1000' N OF N LONG LAKE RD - SBOUND	1,225	10/15/01
,CEDAR RUN	300' W OF GRAY ROAD	4,300	06/04/01
NORTH LONG LAKE	0.75 MILE W OF WEST LONG LAKE ROAD	2,863	07/16/01
EAST LONG LAKE	600' N OF SECOR ROAD	3,960	06/04/01
CEDAR RUN	BWT TILTON & BARNEY	6,675	06/04/01
CEDAR RUN	BWT CEDAR LAKE & CEDAR VALLEY	2,588	08/13/01
WEST LONG LAKE	50' S OF LAWRENCE	2,680	07/16/01
SECOR	750' E OF BASS LAKE ROAD	4,860	06/04/01

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

<sup>23</sup> Source: Grand Traverse County Road Commission.

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. Often the solution sought is wider roads.

Most of the arterial road networks in the Township consist of paved County roads in relatively good condition. In the western portion of the Township within the State Forest Land there are several miles of unpaved local and seasonal roads, but most areas of the community are accessible by paved roads.

### Transportation Plans

A review of the current Five-Year Road and Bridge Program published by the Michigan Department of Transportation for the North Region<sup>24</sup> reflects no program road or bridge improvements in Long Lake Township.

**A minimum of 18,000 additional car trips per day can be expected on local roads.**

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 about 9.57 trips per day.<sup>25</sup> As indicated in Chapter 3, the population of the townships could increase by over 5,200 persons by the year 2025. Based on an average household size of 2.77 persons, this results in almost 1,900 additional households in the Township, alone. At 9.57 trips per household per day, this means an additional 18,183 car trips per day will be generated on local roads. 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.

In 1995, TC-TALUS formed a Long Range Transportation Land Use Plan. The goals of the Plan are as follows:

- ◆ Help build community consensus around a regional transportation and land use and projects plan.
- ◆ Advocate an intermodal transportation network that enhances local prosperity and safety.
- ◆ Promote future land use and transportation development that reduces demand on the road system and preserves community character.

<sup>24</sup> The MDOT North Region includes the northern lower Peninsula.

<sup>25</sup> Institute of Traffic Engineers, *Trip Generation*, 7<sup>th</sup> Edition, 2003.

- ◆ Preserve the environmental, agricultural, and open space assets of the area.
- ◆ Encourage the best use of the existing transportation network, while investigating the funding for transportation improvements.

The TC-TALUS Plan provides detail on all of the existing transportation services within the County, describes different management systems and explains traffic modeling techniques used to determine road systems that may be deficient in handling the traffic volume anticipated. With deficiencies identified, land use alternatives are presented which include two concepts to potentially ease the pressure on the County road system, both of which were supported in the County's 1996 Master Plan and its revised plan adopted in 2002.

**The options that have been discussed include a connection from Bugai Road in Leelanau County in the vicinity of Gray Road along the eastern Township boundary to eventually connect to US-31 in the vicinity of Hartman Road.**

1. Village Center: Small village centers develop in the rural areas around Traverse City.
2. Urban Growth Boundary: Determine a boundary around Traverse City, which separates urban and rural services. This concept allows higher density and more intense land uses within the boundary and low density residential outside the boundary. Public utilities would be a major determinate on where the boundary would be drawn.

Road improvement alternatives, transit alternatives, and railroad possibilities, were all discussed with the pros and cons of each alternative noted. The final section of the plan recommends a number of programmed alternatives (options) for the study area. This document is currently in the process of being updated.

A key project examined in the TC-TALUS Long Range Transportation Land Use Plan is the long-term plan to form a circumferential roadway to relieve east-west congestion in the City. An important element of that network is the proposed new bridge over the Boardman River resulting in a connection between Hartman and Hammond Roads in Garfield Township. The discussion of this circumferential roadway has also addressed connections into and out of the metropolitan area on the west side of the County. The options that have been discussed include a connection from Bugai Road in Leelanau County in the vicinity of Gray Road along the eastern Township boundary to eventually connect to US-31 in the vicinity of Hartman Road. Little has been done beyond conceptual planning, but in the future it is likely that Long Lake Township will be impacted by the growth of regional arterial connections that will foster greater access and traffic in the eastern portion of the Township.

## 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 City of Traverse City Dial-A-Ride and the former Leelanau County Public Transit combined to create an organization that serves both counties. In addition to its regular service, BATA provides transportation for the Headstart Program, senior center, and essential services for those with disabilities. BATA currently operates seven days a week with 42 vehicles and eighty employees. In 1999, BATA vehicles drove 1,293,630 miles and served over 330,066 passengers. In 2000, total ridership increased by 18% to about 390,000. This amounts to slightly more than 2% of the adult population of the County. BATA is primarily a curb to curb service throughout both counties but does serve the Traverse City area with a continuous flow system Monday through Friday. This relatively continuous flow system is known as "The Cherriot." The system is also designed to cater to contract business and schools.

## 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 Eagle, Northwest, United Express, and Northwest AirlinK providing direct links to regional hubs in Detroit, Chicago, and Minneapolis.

The passenger travel through the Cherry Capital Airport in 1990 was 229,361 and increased to 401,803 in 2000. This represents a 75.2% increase in air travel for over the ten-year period. This relationship far surpasses the County population increase of 21%, illustrating the expanding demand for air travel. In 1995, the airport was the sixth largest in Michigan with over 200 regularly scheduled flights weekly; and from 1990 to 2000, growth in passenger volume at Cherry Capital Airport outpaced that of other regional facilities. Cherry Capital Airport also experiences strong seasonal travel as the passenger volume increased by almost 84% from January to July 2000. This is a good indication that the County has a strong influx of summer season tourists, residents, and business activity.

With the growth in air travel demand, a new \$47.6 million terminal has opened to provide additional flight service and increased passenger

amenities. The new terminal features a restaurant with outdoor seating, gift shop, lounge, rental car service, and five additional gates with room to expand to ten. Due to surrounding land uses, no further runway expansions are planned for the facility.

## 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 new 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 modern multi-purpose community facility which includes the offices and equipment facilities of the Battalion 10 of the Rural Fire Department, a temporary library facility and the recreational elements of Haywood Park. Police services in the Township are provided by the Grand Traverse County Sheriff's Department, which maintains a community police officer stationed at the Township offices to improve local responsiveness.

### 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:



**The Township has carefully developed a local parks system that is unique among most rural Townships in northern Michigan**

**Haywood Park** is located along with the Township Offices and Fire Barn on North Long Lake Road. Haywood Park offers outdoor basketball and tennis courts, an official bocce ball court, a 1/3 mile running-walking track, a shaded picnic area, and playground equipment. This is all open to the public. The park also has three baseball diamonds and two soccer fields available for reservation.

**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.



**Bullhead Lake Natural Area is a piece of undeveloped property where the natural environment area can be preserved and enjoyed.**

**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.

**Twin Lakes Camp** is a facility of Grand Traverse County located within Long Lake Township 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. Currently, the Township and County are discussing the potential of locating a new Township branch library at this facility.

## PUBLIC UTILITIES

Currently there are no public water or sewer systems in Long Lake Township. However, 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 are considering the development and licensing of 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. 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.

Beyond water and sewer services, the Township is well-served with natural gas, electrical and telecommunications services – including broadband internet access.

## PLANNING IMPLICATIONS

Many communities make effective use of public water and wastewater systems to support and strengthen land use policies. The Township's lack of these facilities implies a continued reliance on simple on-site systems. These demand sprawling, low-density development patterns that consume greater land area than would be necessary with public utilities.

Certainly, the growth of the population and its accompanying added traffic implies greater congestion on local roadways. There will likely be mounting pressure to expand existing roads and develop new roads to manage traffic volumes. However, these improvements may degrade the rural character, and new and expanded traffic corridors are shown to invite even more growth and, consequently, more traffic.

## SECTION III. COMPREHENSIVE PLAN

Section II 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 a goal setting activity to form the policy basis of this Plan. The following goals and objectives have also been drawn from the input received at the futuring workshop and through the focus group sessions held in support of the planning process.

### CHAPTER 7. GOALS AND 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 eighteen broad goal statements has been developed. Each of these is supported by more specific objectives. This 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 about twenty-five years 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 goal.

#### WOODLANDS AND NATURAL AREAS

**Goal 1.** Large and interconnected areas of healthy and viable woodlands will cover at least 8,600<sup>26</sup> acres in the Township.

**OBJECTIVES:**

- a. Develop objective criteria to define the attributes of healthy and viable woodlands.
- b. Refine the inventory of significant woodland areas in the Community Forestry Plan and identify those that are likely to remain protected, those that may be lost to development and those that may be retained or regenerated.
- c. Develop, promulgate and implement regulations for trail connections between woodland areas, where possible.
- d. Develop and implement programs to increase forest cover within developing areas of the Township.

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<sup>26</sup> From Figure 2.8 of the Community Forestry Plan (Appendix C), plus about 10%.

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

**OBJECTIVES**

- a. Complete an analysis of feasible approaches to monitor lumber and forestry activities on privately owned lands and to encourage effective forestry practices.
- b. Develop and implement a program of public education to promote the use of the Community Forestry Plan's guidance for the effective management of forested areas.
- c. Strengthen the Township's influence with the County Road Commission and attain greater authority regarding roadway design standards that may preserve woodlands.
- d. Evaluate lot dimensional standards and revise the Zoning Ordinance as necessary to permit and incentivize conservation development.

**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.

**OBJECTIVES**

- a. Identify and prioritize significant viewsheds and vistas and develop alternative approaches to preserve them while permitting a reasonable use of private lands.
- b. Strengthen the Township's influence with the County Road Commission and attain greater authority regarding roadway design standards that may preserve woodlands. (Duplicate of 2, c)<sup>27</sup>
- c. Develop and implement a street tree planting and preservation plan for roadside woodland corridors defined in the Community Forestry Plan.

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<sup>27</sup> Note: Some objectives support more than one goal statement and are repeated with a parenthetical note to indicate that the duplication is intentional.

## FARMING AND FARMLAND

**Goal 4** 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.

### OBJECTIVES

- a. Map farmland characteristics of the Township, including locations, type of agricultural enterprise, and crop type, in currently farmed areas and discuss the long-term farming potential of each site with its owners.
- b. Review the Zoning Ordinance and amend as necessary to liberalize standards that are demonstrated to impede farming and agriculture-related activities.
- c. Develop and implement incentive-based standards to encourage the retention of productive farming.

## WATER QUALITY AND LAKEFRONT LIVING

**Goal 5** 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.

### OBJECTIVES

- a. Identify key natural areas that are or may be threatened by a lack of water or wastewater services.
- b. Prepare and implement requirements for time of sale septic tank and drainfield inspections.
- c. Develop and implement a program of operational and maintenance standards for private septic systems.
- d. Develop and implement a program to inform and educate citizens on water quality implications of various land uses.
- e. Develop and disseminate local information and education programs on responsible recreational use of lakes.
- f. Examine the impact of weekly and seasonal rentals on the lakes and adopt regulations accordingly.
- g. Establish regulatory approaches that recognize and correspond to the differing characteristics of the various lakes in the community.

- h. Compile a mailing list of lakefront owners throughout the Township to be used to communicate on lakefront issues.
- i. Evaluate the expansion of the lake residential overlay to lakes outside of the R-2 district, such as North and South Twin Lakes, Stricker Lake and others, and amend the Zoning Ordinance accordingly.

## VILLAGE CENTERS

**Goal 6** Long Lake Township will include two small and confined village 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 sub-area plans to define village center areas in the vicinity of (1) Strait and N. Long Lake Roads; and (2) North Long Lake and West Long Lake Roads, and the general land uses and circulation patterns desired.
- b. Develop public and private water and wastewater utility policies and implementation mechanisms that support and encourage higher density and intensity uses confined to village center areas.
- c. Amend the Zoning Ordinance to establish village overlay or other zoning standards to include design, landscaping and land use standards that encourage compact and mixed use village center areas including appropriate neighborhood commercial and service uses, public uses and residential uses.

## TRAFFIC AND TRANSPORTATION

**Goal 7** 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 and 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. Consider and incorporate the guidance of the M-72 West Corridor Study in promoting appropriate uses and access management techniques along that key corridor.
- d. Develop and implement access control regulations along such primary roadways as North Long Lake Road, Cedar Run Road, Secor Road, and others.
- e. Complete a long-term roadway plan to provide convenient alternative connections between and among areas planned for growth.
- f. Design the plans for the Village centers and other significant land uses in the Township to encourage use of public transportation.

**Goal 8** Pedestrian and non-motorized pathways and trails will connect neighborhoods and village centers, and recreational trails will provide residents and visitors with safe, inviting and non-intrusive pathways to enjoy the community's natural areas.

#### 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, village centers, public lands and facilities, within emerging neighborhoods, 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.

## UTILITIES AND PUBLIC SERVICES

**Goal 9** Water and wastewater systems will be developed in those portions of the Township currently developed or planned for higher density residential, commercial and village center uses.

#### OBJECTIVES

- a. Identify key natural areas that are or may be threatened by a lack of water or wastewater services. (Duplicate of 5, a)

- 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. Adjust the Township's community wastewater policy to encourage private community systems in those areas that may require service to protect features and/or in those developments that propose the preservation of significant open space.

**Goal 10** The Township will work with public safety agencies throughout the region to provide rapid and competent response to emergencies.

#### OBJECTIVES

- a. Develop and undertake an effort to expand emergency response services supported by a voted millage.
- b. Work with the Rural Fire Chief to develop standards for emergency fire suppression water supply in all developing parts of the community.
- c. Coordinate with the County GIS Department to locate fire suppression water supplies through out the Township.
- d. Work with the County Sheriff's Department to expand lake patrol services to control unsafe and unwanted boating behavior.

**Goal 11** The Township will provide year-round recreational facilities and services to foster healthy lifestyles and strengthen neighborhoods.

- 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 12** 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. This will include continued support for the County planning function and County Master Plan.

#### 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 13** 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 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. (Duplicate of 11, b)

**Goal 14** 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 15** Businesses in the Township will be clean and economically viable corporate citizens located in well-defined commercial areas and the village centers in support of the Comprehensive Plan goals.

### OBJECTIVES

- a. Develop sub-area plans to define village 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. (Duplicate of Objective 6, a)
- 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. (Duplicate of Objective 5, b)
- 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 village 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 16** 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 property owners along M-72 to develop a sub-area plan that will include a roadway network that will enable the development of the southern parts of the sub-area and provide a connection to Barney Road.
- b. 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.
- c. Consider and incorporate the guidance of the M-72 West Corridor Study in promoting (Duplicate of 7, c).

## PLANNING AND CODE ENFORCEMENT

**Goal 17** 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. For example, permit decks within the lakefront setback where significant native vegetation is added.

**Goal 18** 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

**Each Future Land Use category is intended to foster a character distinctive of that district and unique to Long Lake Township.**

The Long Lake Township Comprehensive 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 1,900 additional households anticipated in the Township by 2025.

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.



**Township residents desire to retain the natural rolling landscape that offers serene views, wildlife habitat, and a beautiful countryside atmosphere**

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, 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 Map 11. 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. Note that the future land use designations on Map 11 are meant to be seen as general with indistinct edges. Along the margins, where two or more designations adjoin, either land use class may be appropriate.



# Map 11

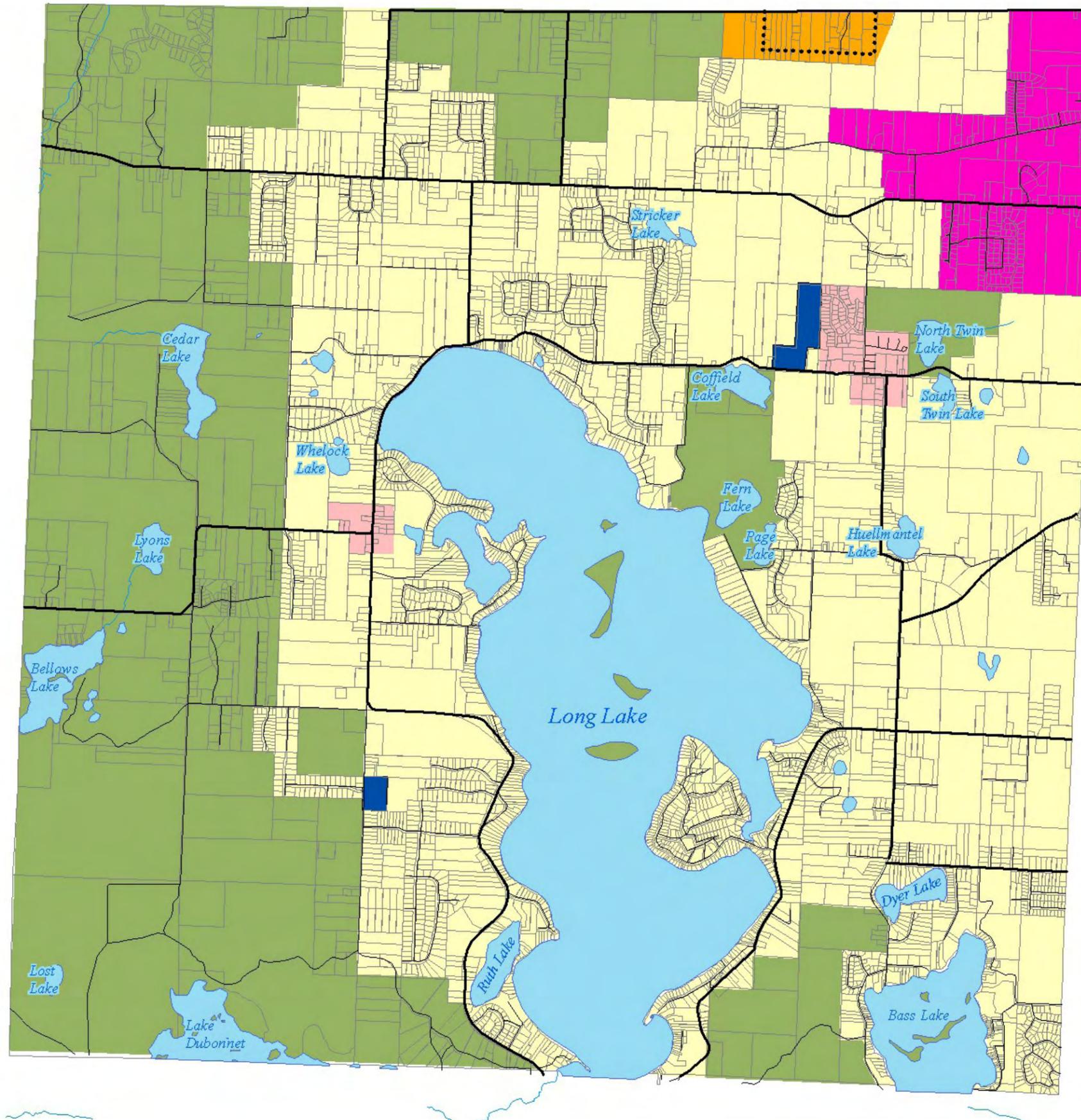
## Long Lake Township

Grand Traverse County, Michigan

### Future Land Use

November 30, 2005

Legend	
	Roads
	Key Routes
	Alternate Route
	Parcels
	Schools
	Streams
	Open Water
<b>Future Land Use Designations</b>	
	Low Density Residential
	Moderate Density Residential
	Village Centers
	Commercial & Industrial
	Rural Preserve



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Back of Map 11

## 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, active agriculture and forestlands. These lands are a vital element of the Township's pastoral identity and an overarching 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 8,436 acres of Long Lake Township, or about 45.4% of total land area. Of that area, about 1,600 acres fall within the Pere Marquette State Forest.

With much of the Rural Preserve 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 and significant farmlands. Public utilities are not anticipated in the area, although small community systems may be employed where needed to serve the purposes of the district.



**A central goal of this Plan is the practical protection of those lands that serve as habitat for the wildlife**

**Natural Areas.** 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 Community Forestry Plan (see Appendix C) 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

**Measures to protect and enhance wildlife habitat, natural features, ecological corridors and rural character are more important than simple residential densities.**

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.

**It is likely that over the course of this Plan's life, many active commercial agricultural operations will cease to function.**

**Agricultural Areas.** Agriculture is an important element of the heritage of Long Lake Township and parts of the Rural Preserve district may include active commercial farms, timber stands, or hobby farms. Such uses contribute to the rural character of the Township and should be encouraged. However, it is also likely that over the course of this Plan's life, many active commercial agricultural operations will cease to function. The policies of this Plan are intended to permit the gradual conversion of marginal farm ground to more intense residential land uses. Lands without significant natural features may well support rural residential densities of up to one dwelling unit per acre. Those lands with important wood stands, lakes, streams or wetlands or with important wildlife or view corridors should be carefully developed to

protect these contributing features, while enabling a reasonable degree of development.

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.

## 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 9,709 acres of the Township, or 52.3% percent of total land area.



**Farming activities in this area may continue to reflect the Township's agricultural heritage**

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.

**Herkner/Huellmantel.** The area along the eastern Township boundary, generally bounded by North Long Lake Road to the north, Boone Road to the south and extending west of Bass Lake and East

Long Lake Roads on the west, is characterized by rolling hills used for crop production and low-density residential development. The attractive, rolling landscape, and the fact that residential growth in Garfield Township to the east is proliferating, implies that this area will likely experience the greatest growth pressure in the Township. This area is well positioned for residential growth with reasonably good connections to the metropolitan area. Thus residential densities of about one dwelling unit per acre may be encouraged, with greater density where public utilities are provided. One exception to this would be the ecological corridor that extends from North and South Twin Lakes to Huellmantel Lake in Section 13. In this area conservation cluster design development should be used to protect this corridor to the greatest extent possible. In addition, it is probable that the remaining agricultural uses will diminish as development occurs and/or shift to agri-retail uses, such as farm markets, retail nurseries and garden supply stores.

**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



**A key objective will be the preservation of important view corridors**

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.

**Public or private utility systems will directly impact densities and should be contemplated when needed to enable protection of rural features.**

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



**Playgrounds and sitting areas to provide recreational opportunities should be incorporated in new development**

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.

## VILLAGE CENTERS



**The Village Centers will be designed to compliment existing natural vegetation and features**

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 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 village 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 and drive-through commercial establishments will not be encouraged. A vital element of the village centers will be safe and convenient pedestrian access. Residential uses in the Village 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 Village 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. These facilities will assist in defining the village communities and will foster "quaint" commercial and residential structures.

**A vital element of the village centers will be safe and convenient pedestrian access**

In addition, the Village 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 Village Centers will be designed to compliment existing natural features. The Township will develop design guidelines for these communities to stipulate that new construction, and improvements to existing structures, reflect Township goals.

Two story buildings, where appropriate, may be encouraged and may integrate service uses on the first story and residential units above. Such form concentrates growth; thereby assisting in the preservation of undeveloped lands elsewhere. Proposed commercial and residential uses must be compatible with existing, established land uses, so it is probable that the Village Centers will emerge gradually. Should the communities develop piece-by-piece, developments will be designed and coordinated so that pedestrian connections among them will be possible.

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



**Village uses, facilities and activities should encourage neighbor interaction.**

**“West Village Center.”** The “West Village Center”, located at West Long Lake Road and North Long Lake Road, currently includes a machine shop, veterinary clinic and other service uses. It is anticipated that this Village Center will develop with commercial uses and services that generate less traffic and activity than the other one.

**“North Village Center.”** The “North Village 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 Planned Unit Development, residential uses, Moomer’s Ice Cream and Fieldstone Deli are good examples of the type of growth that is anticipated. In addition, high-density residential uses are desired to support existing and future commercial uses.

**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.



**Design standards should be developed to assure attractive and functional commercial and industrial facilities**

Commercial and industrial buildings will generally be larger than those of the Village 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



**North Long Lake Road, at the hill and bend around Coffield Lake**

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 viewsheds. 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, TC-TALUS, and developers to meet the transportation objectives of this Plan.

**View Corridors.** View corridors offer an enjoyable journey for travelers and may assist in augmenting local tourism revenues. The following

locations are specifically identified as important view corridors in the Township, although others likely exist.

- ❖ North Long Lake Road, at the road bend and hill between North and South Twin Lakes
- ❖ North Long Lake Road, at the hill and bend around Coffield Lake
- ❖ North Long Lake Road along the northern Long Lake shoreline between Church Road and Edgewood.
- ❖ Westbound Secor Road, west of Bass Lake Road approaching the Long Lake.
- ❖ Northbound East Long Lake Road, approaching Huellmantel Lake.



**Flexible site utilization may reduce side and rear setback requirements to promote the preservation of natural vegetation abutting the right of way**

Several mechanisms should be implemented along these defined View Corridors to ensure preservation. In addition to donated or acquired conservation easements outlined in the Future Land Use descriptions (easements of one hundred feet along roads in Rural Preserve and Low Density Residential areas, and fifty feet in Moderate Density Residential areas), the Township may impose or encourage other methods of viewshed preservation.

For example, the Township may require deeper front setbacks for properties along the designated View Corridors. Less land consumptive development, such as the clustering of home sites, may be encouraged to protect the corridors. In addition, the Township may allow flexible site utilization

and may reduce side and rear setback requirements to promote the preservation of natural vegetation abutting the right of way. This would have the effect of shifting the development of structures and buildings away from the road or the viewshed area. Finally, conservation easements and donations may be sought as a means to protect significant views.

**Alternate Routes.** Generally, connections through the Township are limited due to such topographical elements as the lakes, steep slopes and wetlands. These restrictions tend to concentrate traffic on a few roads. To improve transportation safety in the Township, and mitigate the effects of traffic congestion, the following Alternate Routes are anticipated during the planning horizon of this Comprehensive Plan.

- ❖ **Commercial Circulation Drive.** A new roadway along the southern portion of the Commercial-Industrial district will provide access to the southern portions of property fronting on M-72. This would enable more effective use of those lands and allow further development without necessitating additional openings onto the state highway. It is anticipated that such a roadway will emerge as development pressures mount and that development of the roadway will be privately funded, but with Township support.
- ❖ **Gray Road.** The long-range plans of the Road Commission call for Gray Road to be extended south from Cedar Run, at least to North Long Lake Roads, along the eastern border of the Township. This will eventually become a part of a regional arterial and lands along this corridor could experience pressure for heavy commercial development. Based on public input, such development is not desired along this corridor as commercial uses in Long Lake Township should be confined to Village Centers and the Commercial and Industrial area. Development occurring along this corridor should be coordinated with Garfield Township to the east.



**Narrow North Long Lake Road right-of-way**

- ❖ **Northwest Long Lake.** The narrow right-of-way of North Long Lake Road along the northwest edge of Long Lake creates safety and aesthetic challenges for the community. Residents in the area must cross the road to reach the lake. The proximity of the Township Park and boat launch and the increasing volumes of traffic on North Long Lake Road intensify congestion and potential conflicts. Two possible solutions have been identified.

The right-of-way of North Long Lake Road could be shifted to the northwest, essentially along the rear property lines of the properties that front on the existing road. This would allow existing homes to be reoriented toward the lake. In other words, the right-of-way would be “swapped” with a portion of the rear of the existing parcels, thus increasing property values, but more importantly, allowing residents access to the lake without having to cross traffic. This shift could occur at the intersection of Skiver and North Long Lake Road and the adjusted road alignment could return to the existing right-of-way south of the Township park.

An alternative approach would involve reducing traffic along the narrow North Long Lake Road right-of-way by improving Skiver and Cedar Lake Roads, essentially creating a reliever route around the existing North and West Long Lake Road intersection. This would divert through traffic,

thereby reducing the current traffic volume and minimizing the potential for pedestrian-automobile conflicts. Even though such a change would reduce traffic (and therefore the potential for impulse retail uses) at the West Village Center, given the destination nature of the likely uses at this intersection, this is not viewed as a significant drawback.

Undoubtedly, other transportation improvements may be needed in the Township throughout the duration of this Plan. Nevertheless, future transportation improvements should be designed to function in congruence with the desires of Long Lake Township residents, and should not intensify the pressures of urban sprawl. Neither should roadway improvements work counter to the strong desire of Township residents to preserve the scenic nature of local roads.



## CHAPTER 9. IMPLEMENTATION STRATEGIES

**Primary responsibility for implementing the Plan rests with the Long Lake Township Board, the Planning Commission, and the Township staff.**

For a Comprehensive 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.

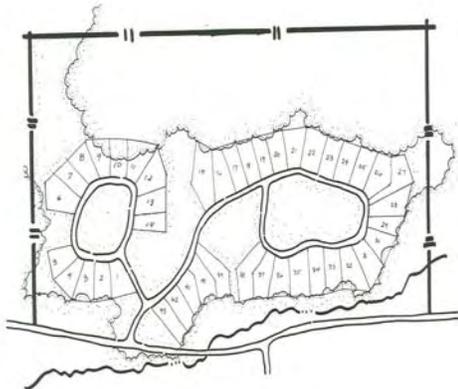
Primary responsibility for implementing the Plan rests with the Long Lake Township Board, the Planning Commission, and the Township staff. In order for the Future Land Use Plan to serve as an effective guide for continued preservation and growth in Long Lake, it must be implemented. This is done through 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.

### 1. EVALUATE AND REVISE THE ZONING ORDINANCE

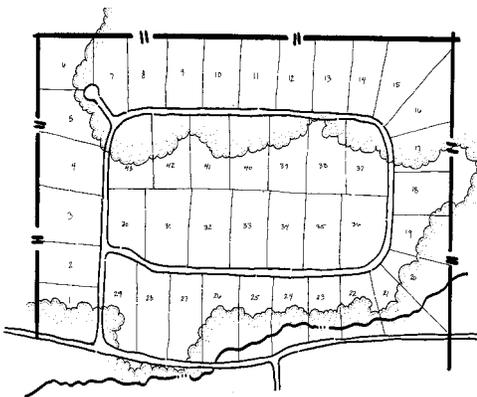
**Description.** The Zoning Ordinance is the primary implementation mechanism for this Plan. This strategy contemplates a comprehensive evaluation of the entire Ordinance in light of the community's goals, objectives, and Future Land Use Plan. This will include a revision of the Zoning Map, as appropriate, to support the future land use map, and a revision of some zoning classifications to better conform to the future land use designations in this Comprehensive Plan. In addition, the Ordinance should be evaluated for flexibility to address innovative development techniques and for its ability to control inefficient development patterns.

The following paragraphs describe many of the changes that will be needed in the Zoning Ordinance.

- a. **Cluster Development.** The Zoning Ordinance should be amended to permit open space development and conservation cluster development in any area where the Natural Features Inventory identifies high priority features such that flexible open space



developments (above) should become the norm as opposed to the traditional subdivision (below)



**Easements may be voluntarily offered by or purchased from the property owner; or, they may be required through zoning provisions, including zoning overlay standards and increased setbacks.**

development and conservation cluster developments become the norm in these areas as opposed to the traditional subdivision of land that may frustrate natural resource protection and rural character. Where the inventory shows important features, the traditional subdivision that does not include measures to protect rural character should be discouraged through zoning mechanisms with the onus on the applicant to demonstrate how such a form supports the intent of the Plan or the Zoning Ordinance. Conversely, where existing development patterns establish a more traditional form, the ordinance could treat traditional subdivisions less restrictively.

b. **Village Center Design Standards.** To achieve the two Village Centers described in the Future Land Use Plan, it will be appropriate to conduct a study involving area residents and property owners to determine the type of architectural design the community desires. From this analysis, Sub-Area Plans should be completed recommending proposed facade styles, colors, and theme types. Standard guidelines would enable the Planning Commission to allow development to occur in the Village Centers with continuity and consistency, and with respect for local opinions. Once the Sub-Area Plans are completed, the next step will be to develop specific design guidelines that clearly define the style and character of development desired in the “West and North Village Centers.” Such standards should include building architecture, site utilization, landscaping, fenestration, land uses, and building form, and should be incorporated into the Zoning Ordinance.

c. **Scenic Corridors.** The Township should include in its Zoning Ordinance standards to protect scenic areas through conservation easements or deeper setbacks. These would be legally binding restrictions on private property, which provide for the preservation of a specific feature or corridor while permitting appropriate development. The intent is not to prevent or restrict development but to protect land, which is environmentally sensitive or unique from the encroachment of development, and to protect scenic viewsheds along roadways. Easements may be voluntarily offered or purchased from the property owner; or, scenic corridors may be established through zoning provisions, including overlay standards and increased setbacks. Easements are sometimes donated to or purchased by another entity – often a land trust or municipality – who enforce and monitor their terms. An increased setback area along a roadway would preserve the corridor in perpetuity but still permit the same development yield on the balance of the site. This

implementation strategy envisions appropriate standards for the effective and perpetual preservation of open space and natural features be incorporated into the Zoning Ordinance.

- d. **Alternative Agricultural Uses.** The Ordinance should be revised to include zoning regulations to permit a broader range of agricultural enterprises, and adjust zoning provisions in agricultural areas to encourage agricultural support businesses (such as farm market stands, corn mazes, etc.). This strategy is intended to augment agri-tourism and local retail opportunities for local farmers.
- e. **Viewsheds.** A central element of the Township's quality of life is the spectacular views from the rolling hillsides and over the inland lakes. A few viewshed corridors are identified in this Plan and should be preserved as such. The purpose of this strategy is to preserve these viewsheds, and others, by managing the scale and placement of buildings that adjoin these areas, through use of an overlay zone. An Overlay District should be created that defines viewsheds and grants the Planning Commission flexibility in applying such district regulations as setbacks and building height, to achieve the viewshed preservation objective while permitting reasonable growth.
- f. **Interconnectivity.** The Zoning Ordinance should be revised to include stipulations for the connectivity of individually developed subdivisions. These regulations would oblige new developments to take adjacent property into consideration, and where possible, would require new developments to connect to existing developments or provide for future expansion or connection with future development. These regulations would primarily apply to development in residential districts, especially those that adjoin the village centers. They would be intended to achieve pedestrian friendly transportation networks, and augment the sense of community in the Township.
- g. **Access Control.** The Township Zoning Ordinance should be modified to include access management standards for arterial roadways in the Township, including M-72 and portions of North and West Long Lake, Strait and Secor Roads. These access management standards will effectively protect the flow of traffic and the safety of motorists on existing or emerging through-corridors, and in places along a roadway where commercial or industrial development is anticipated. The standards should include stipulations such as, restrictions on curb cuts, shared access easements, frontage drives, throat length requirements, and acceleration/deceleration lanes. This activity will involve the input

**Access control standards would include restrictions on curb cuts, shared access easements, frontage drives, throat length requirements, and acceleration/deceleration lanes.**

of the Grand Traverse County Road Commission and Solon Township, Garfield Township, and Elmwood Township.

**Responsibilities.** The Planning staff and the Planning Commission may implement this strategy. This is an extensive task with multiple elements – each with unique challenges that may require each activity to be addressed independently – and it is likely that outside support will be needed. Any resulting amendments to the Ordinance will require the review of the Township’s legal staff and ultimately adoption by the Township Board.

## 2. NATURAL FEATURES INVENTORY

**Natural features and open spaces should be documented to help identify preservation priorities.**



**Description.** A key aspect of the Township’s Comprehensive Plan is the ideal of preserving natural beauty and significant natural features within the community. The key component of the strategy for doing so is the preparation of an inventory of important natural features and the identification of the likely trends or conditions that may threaten them. Significant natural features and valuable open spaces should be documented to help identify preservation priorities that may arise for private conservation and possible land acquisition.

Building on the work done to prepare the Community Forestry Plan and utilizing Geographic Information System mapping techniques, the Township should develop a series of mapped exhibits to serve as a guide for future land use decisions or to encourage private protection of natural features. The Michigan Natural Features Inventory will serve as a solid foundation with field confirmation work to be conducted on a sequential basis as the inventory develops. This will require support from an environmental consultant with expertise in northern Michigan wildlife and forestry systems and fresh water biology. This strategy also envisions work to refine and expand the existing Community Forestry Plan, and additional information gathered from the natural features inventory activity may be incorporated into that document. The Township may partner with various environmental agencies, volunteers, and higher education institutions to assist in research, funding, and feature delineation.

Further inventory activity may also occur as private property owners submit site plans for review and consideration. Independent and professionally prepared natural features cataloging can be made a required component of site plan submittals for certain critical properties, such as those adjacent to lakes and streams. The information provided can be considered for incorporation into this inventory.

**Responsibilities.** This strategy must be led by the Township Planning Commission with Planning staff utilizing outside consultants – planning and environmental – as needed to complete field work and to develop specific Zoning Ordinance language.

### 3. DEVELOP UTILITY POLICY AND ORDINANCE

**Description.** Policies that direct the location of public water and sanitary sewer services are an important growth control mechanism. Many important strategies outlined in this Plan anticipate clustering development to protect natural features. Such clustering cannot be undertaken relying on individual, on-site wastewater systems. The Township should investigate current capacity, impacts, and sustainability of existing utility approaches by conducting a Utility Needs Study. The Study would identify areas threatened by a lack of utility services, recommend improvements, and identify feasible financial approaches for implementation. This will include an evaluation of alternative wastewater treatment mechanisms, such as negotiation of an extension of the County system, a free-standing municipal system, and/or a series of private community systems.

In addition, the Township should create a new utility ordinance and modify existing community wastewater policies to reflect the recommendations of the Study. A new utility ordinance would outline standards with regards to wastewater and potable water, and include regulations concerning time of sale septic tank and drainfield inspections. It is likely that the Study would suggest wastewater and water systems be developed in those areas experiencing or projected to experience higher density residential development.

**Sewer and water facilities will place the Township in the strongest position to guide and direct growth.**

By encouraging new development located in proximity to existing or proposed sewer and water facilities, the Township will be in the strongest position to guide and direct growth. For this technique to be effective, the Township must conduct the Sewer Needs Study and continually monitor the effectiveness of the mechanisms to manage the placement of utilities and infrastructure in the community.

**Responsibilities.** The Planning Commission and Township Board should work in conjunction with one another to implement this strategy, with support from an engineering consultant and possibly an environmental consultant.

#### 4. CONTINUE COMMUNITY EDUCATION

**Description.** Planning processes are persistently changing with shifting social and economic concerns, and unique land use challenges. There have been many changes recently in the attitudes of residents toward growth, economic development, traffic, protection of natural resources, and other pertinent land use issues. It is vitally important for Township officials to continue to seek educational opportunities for residents to broaden the general level of understanding of land use and planning issues and techniques and to have meaningful input into the proposals that will impact their neighborhoods.

An element of this strategy includes, first and foremost, the continued education of Township officials. In addition, the Township should endeavor to educate the public on current planning trends and the benefits of implementing the goals and objectives in this Plan. Every public meeting, including those hosted by the Planning Commission and Township Board, should be instructive for the public. Finally, the Township will implement measures to broaden public input and comment with regard to significant development proposals in the community. This may include requirements for public notice in advance of work sessions on proposals, more broadly distributing direct mail notices on such proposals and/or requirements that applicants conduct neighborhood discussions prior to formal submittal.

**Responsibilities.** The Township Board, Township Planning Commission, and staff will need to be responsible for seeking and sponsoring seminars and conferences on current planning topics, as well as developing and promulgating educational brochures and posting information on the Township website.

#### 5. CONSIDER REGULATIONS FOR WEEKLY & SEASONAL RENTALS

**The conflict is a delicate balance of resort and residential neighborhood character...**

**Description.** The Township currently has no policies to regulate weekly and seasonal dwellings on the lakes. As seasonal cottages have converted to year-round dwellings, a stronger sense of community in lakeside neighborhoods has developed. The result is growing conflict between seasonal and permanent usage – especially in the case of absentee property owners. The conflict is a delicate balance of resort and residential neighborhood character, and involves trepidation concerning environmental and lake stress. Other concerns include the number of occupants per weekly or seasonal dwelling, noise levels, ground water pollution from over usage of septic systems, littering and property maintenance, parking habits and increased traffic.

The Township will further research this issue to define the scope of the problem. Opinions expressed at the Lakefront Living Focus Group were clear and consistent and identified several dilemmas that will likely need Township intervention if quality of life is to be preserved. The



**A balance is needed between the interests of year-round residents, vacationers and rental owners**

Township must strive to achieve a balance between quality of life for permanent residents, the need of some property owners to take advantage of the resort value of their properties and the interests of vacationers. A first step in this process should be a study that better identifies the challenge, determines receptiveness to new regulations, and evaluates possible impacts of alternatives. The study may entail surveying lakeside residents, owners of lakeside property, and vacationers.

From this study, standards for licensing and/or other regulations may be developed. These standards would help facilitate the achievement of several objectives, including: better managing this type of land use on the Township's lakes; reducing stress on the lakes; and, assuring that the construction and use of lakeside dwellings are held to higher standards. This strategy may also include improved code enforcement and involve collaboration with the Michigan Department of Natural Resources (DNR) and the Sheriff's Department.

**Responsibilities.** The Township Board is ultimately responsible for this activity, though it should also involve the Planning Commission, concerned citizens, the DNR, Township staff, and regional agencies and individuals involved with lake management, such as County marine officers.

## 6. DEVELOP TRAILWAY PLAN

**Description.** This strategy suggests that the Township engage in developing a Trailway Plan, which would identify a range of opportunities for non-motorized trail linkages throughout the Township. Quality of life and recreational opportunities would be enhanced by formation of a trail network that connects neighborhoods with certain natural and cultural features as well as with schools and the village centers. Trails offer users a wide range of rewards including mobility, recreation, and an alternative form of transportation that encourages people to exercise. A trail right-of-way network protecting and exhibiting significant features is anticipated as a result of this strategy. Uses of the trails may include nature interpretation, equestrian, biking, walking,

hiking, and cross country skiing, adding to the area's rich recreational heritage.

A Trailway Plan should evaluate current land use patterns, environmental characteristics, potential greenway corridors, and other features of the community to identify best locations for future construction of trails. In addition, a Trailway Plan should recommend alternative funding sources, staging and other recreational areas, and mechanisms for the preservation of greenways.



**Uses of the trails may include nature interpretation, equestrian, biking, walking, hiking, and cross country skiing.**

The Township Board should establish a Trails and Greenways Commission or expand the authority of the Parks Board, to work in conjunction with the Planning Commission in the development of a trails and greenways network. It will be imperative to involve all established trails groups in the Grand Traverse, Leelanau, and Benzie areas to utilize their experiences and, possibly their resources. In addition, an independent non-profit entity may be formed to help address liability and to support maintenance responsibilities.

**Responsibilities.** Initial responsibility for implementation will rest with the Township Board and Planning Commission, with support from Township staff and the Parks Board. The work to develop the Trailway Plan would be undertaken by Township staff with policy guidance from the Planning Commission and Parks Board and with assistance from environmental and planning consultants.

## APPENDIX A. BIBLIOGRAPHY

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## APPENDIX B. ACKNOWLEDGEMENTS

An effective planning process includes the input from a broad range of individuals and agencies. The process that resulted in this plan is no exception. The members of the Planning Commission and Township Board, while central to the development of the plan, recognize the importance of the input and information provided by the citizens and business owners in the community. We gratefully acknowledge the contribution and insight of the following persons.

Ron Albers	Rod Frankel	Phil Sachtleben
Tom Allen	Joanne Gallagher	Ron Sanborn
Colleen Ankerson	David Garvin	Tim Schreiner
Roger Bloom	Cheri Garvin	John Shields
Skip Bordeau	Kathleen Gest	Greg Shugart
Nick Boudjalis	Walter Hammond	Matt Skeels
Betty Brief	Bea Houghton	Harriet Smith
John Brief	Mark Humitz	Harold Smith
Harry Burtwell	Mike Jackson	A.J. Staal
Thomas Buss	Jim Jacobs	Mrs. A.J. Staal
Joe Butine	Jim Johnson	Bob Sternberg
John Cartright	Ray Kendra	Joe Sterns
Emmy Lou Cholak	John Kooiman	Maureen
Claudette Clark	Al Laskey	Templeton
Charles Conville	Cindy Laurents	Joy Tobin
Dennis Davidson	Tim Lind	Sonny Wheelock
Donna DeSoto	Barry Lishawa	Joan Williams
Steve Doherty	Joe Luse	Gene Wishowski
Anne Drake	Steve McGarry	Mike Witkop
Dan Drake, M.D.	Rick Moore	
Scott Fewins	Heather Norconk	
Mary Jo Fifarek	William Oldford	
Bob Flannery	Margaret Platner	

**Photography:** We gratefully acknowledge the contributions of Long Lake Township for many of the photographs in this report. Other photos from Williams & Works files, or as indicated.



## APPENDIX C. COMMUNITY FORESTRY PLAN

On January 18, 2000, the Long Lake Township Board adopted a community forestry plan. Its purpose was to identify important woodlands and wildlife habitat and the ecological corridors they constitute and to map those to assist in guiding land use decisions. That plan was adopted as an addendum to the 1997 Township Master Land Use Plan. It is also referenced in the Township's Zoning Ordinance and serves as a guide for the implementation of certain zoning mechanisms.

Therefore, the Long Lake Township Community Forestry Plan was used to guide the development of this Comprehensive Plan. Its guidance is hereby reaffirmed and the entire volume of the Community Forestry Plan is hereby incorporated in this Comprehensive Plan by reference.