

Ironwood Township 2035



MASTER PLAN

Charter Township of Ironwood

2012



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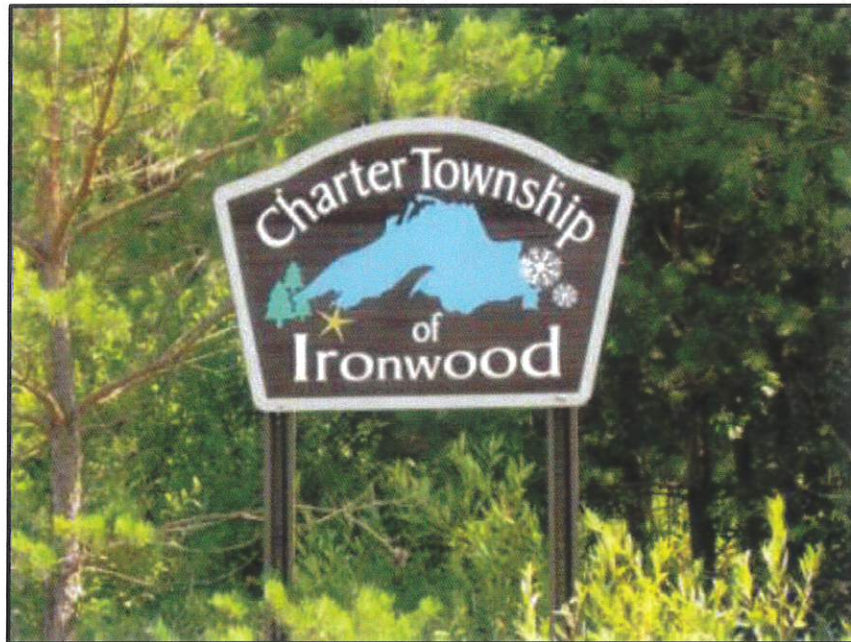
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CHAPTER 1

INTRODUCTION



1.1 PURPOSE AND USE OF A TOWNSHIP MASTER PLAN

PURPOSE OF A TOWNSHIP MASTER PLAN

This plan update was undertaken to help the citizens of Ironwood Township make informed decisions and set priorities and goals to achieve a more sustainable community. The plan will serve as a guide for coordination on future decisions about land-use regulation, capital spending priorities, and economic development.

A Master Plan is a long-range policy document that provides a framework for the future. It is not a law. The zoning ordinance is one regulatory mechanism, or law, that is meant to implement the policies of the Master Plan. State law requires that the zoning ordinance be based on an adopted plan. Zoning decisions consistent with an adopted Master Plan are presumed by courts to be valid. In this way, the Master Plan strengthens the Township's legal position for land use regulations.

The planning process also provides valuable community benefits. In developing the Master Plan, local officials and organizational leaders are encouraged to identify problems and find reasonable solutions. Planning also creates a framework for public participation and community involvement which promotes regional cooperation and contributes to small town quality-of-life. Community planning is not a technical, academic process that converts information into clear-cut policies. A Master Plan is a living document that rests on the foundation of community vision—what the people of a community envision and support for their collective future.

Today, as resources are thinly stretched, it is also important to look for beneficial collaborations, and to support initiatives that benefit the region, thereby also enhancing the Township. This plan is created from a spirit of collaboration and cooperation. Regional perspectives are incorporated into various goals, objectives, and strategies.

Use of the Plan

This Plan is prepared under authority of the *Michigan Planning Enabling Act, P.A. 33 of 2008*, as amended. It provides the basis for zoning under the *Michigan Zoning Enabling Act, P.A. 110 of 2006*, as amended. The plan also provides a basis for subdivision regulations, local land use regulations, and the capital improvements program, ensuring consistency with expressed community goals and policies. This plan is designed to be consistent with other regional plans, thereby setting the stage for regional collaboration.

The Ironwood Township Master Plan provides advisory guidelines for development based on public vision, interests, and intentions. This allows private sector landowners and developers to make decisions that are consistent with public goals. It provides a rational, foresighted, and comprehensive foundation for Township strategy.

1.2 THE PLANNING PROCESS

The Charter Township of Ironwood Staff and Planning Commission provided leadership for the engagement and collaboration of citizens and organizations to formulate this Plan. This collaboration was achieved through a visioning process including public workshops and surveys.

The planning process began with a kick-off meeting with the Ironwood Township Planning Commission to determine the scope of the project and gain an understanding to the issues facing the community. The

public participation began with an online survey. Following the survey, a public workshop was held on the evening of April 26, 2012.

1.3 COMMUNITY INTRODUCTION

Located in or near the County Forest of Ironwood Township are several points of interest, including the Montreal River Gorge, Black River Scenic Byway, Lake Superior Scenic Overlook, Bald Mountain Interpretive Trail/Scenic Overlook, and Powers Scenic Drive. Little Girl's Point is a park and campground located on a high Lake Superior bluff. It includes a 40 bunk lodge, picnic tables, playground, and campgrounds. The Township community park is located at Lost Lake, where there is a pavilion with swimming area and non-motorized lake with handicap accessible dock.

Copper Peak is a registered State Historic Site and a participating member of the Western Upper Peninsula Heritage Trail Network. It is home to the Copper Peak International Ski Flying Hill, the only ski flying facility in the Western Hemisphere. An 800 foot chair lift takes visitors to the crest of the hill, and then an 18 story elevator cruises to the observation decks atop the giant structure. The 360 degree unobstructed view allows viewers to see more than 2500 square miles overlooking Lake Superior and forests.

The Big Powderhorn Mountain Resort is located in Ironwood Township, and offers 29 trails on 253 skiable acres with a 600 foot vertical drop. There are nine lifts. This resort was awarded two 2009 Visitor Choice honors by OnTheSnow.com, including "Most Family-Friendly Resort" and "Best Downhill Terrain". The resort utilizes wireless timing gear to accommodate racing, and terrain parks and trails have recently been further improved. A variety of lodging is located nearby.

Mt. Zion Ski Hill is located on the Gogebic Community College campus, and features a 300 foot vertical drop, 10 slopes and trails, 2 km of Free Dual Track Set Cross Country ski trails, ski and snowboard rentals, a snow tubing park, and snack bar. Mt. Zion also has a scenic overlook accessible by auto most of the year.

There are many beautiful waterfalls in Ironwood Township, but a smooth, blacktop path makes the Gorge and Potawatomi Falls accessible for wheelchairs, elderly, and small children. This is a designated National Recreation Trail. The Black River Harbor serves as an access point to Lake Superior, with a boat ramp that can accommodate almost any trailored craft. The facility also includes picnic ground, campground, waterfall observation deck, pavilion with fireplace and flush toilets, wooden suspension bridge, and sand beaches. Charter deep-sea fishing is available from either Black River Harbor or Saxon Harbor.

The Gogebic Community College Campus and the Pat O'Donnell Civic Center are located in Ironwood Township, just north of the City of Ironwood. The Civic Center is the area's only indoor, temperature controlled ice surface for recreational skating and hockey. The Gogebic County Airport is also located in Ironwood Township, and is jointly managed by Gogebic and Iron Counties.

The Township is governed by a Township Supervisor and support staff, Township Board, and Planning Commission.

1.4 LOCATION AND TRANSPORTATION LINKS

The Township is located on the western boundary of the Upper Peninsula of Michigan. The Township is approximately 175 square miles boarded by Lake Superior to the north; Wakefield Township to the east; Bessemer Township and the City of Ironwood to the south and the State of Wisconsin to the west.

The Township geographic location is relatively remote from large urban areas of Michigan, Wisconsin or Minnesota. Travel times include two and a half hours to Houghton, MI or Duluth, MN; about three hours to Marquette, MI; about 11 hours to Detroit, MI; about 10 hours to Lansing, MI; about two and a half hours to Wausau, WI; about four hours to Green Bay, WI. Major travel routes include United States Highway 2 which runs east/west across the southern Upper Peninsula and continuing westward to Everett, Washington. United States Highway 51 travels north/south from near Ironwood to Laplace, Louisiana providing access to Wausau, WI, Green Bay, WI, Madison, WI and Milwaukee, WI.



Figure 1-1: Location Map
Ironwood Township, Michigan

Source: ESRI, MCSSIP, UPEA GIS. Prepared By: MAB, February 13, 2012. File: Ironwood Township (136-12184)

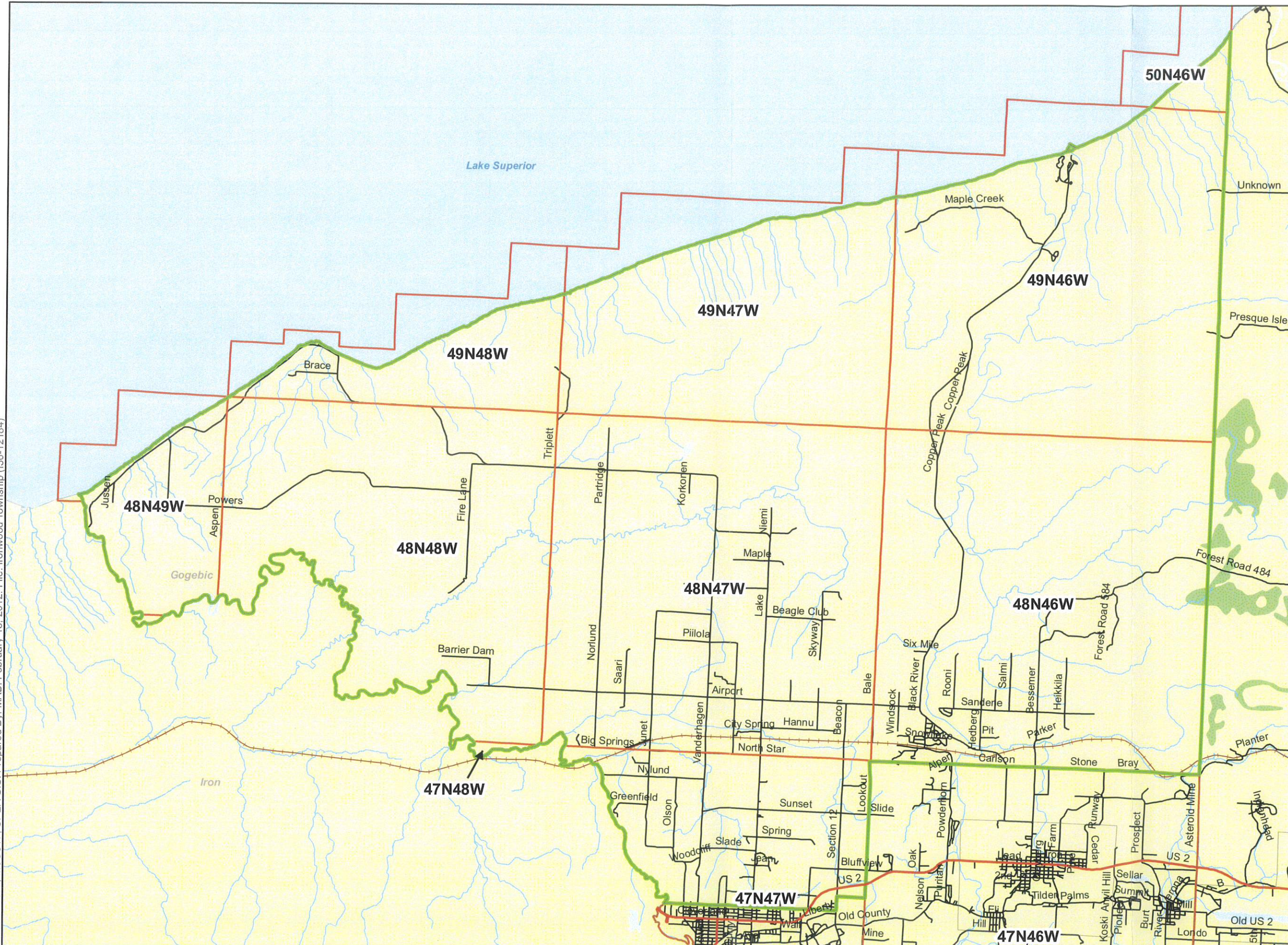


Figure 1-2: Base Map

Ironwood
Township,
Michigan

Legend

- Town & Range Lines
- Roads



1.5 A BRIEF HISTORY OF THE AREA

In 1842, the Chippewa band of Indians signed a treaty giving up their claim to the western part of the Upper Peninsula, allowing the federal government to issue mining leases and sell the land.¹ Gogebic was established as an official county in 1887. The courthouse was first constructed in Bessemer in 1888, built of Lake Superior brownstone. Early fires bringing extensive property damage encouraged redevelopment using more fire resistant materials. Early travel was by train, streetcar and horses.

The cities of Gogebic County began as frontier mining towns during the Iron Ore boom years, with housing and services locating near the mines. A flood of immigrants from England, Italy, Sweden, Finland and other countries came to work in the mines. Population growth was rapid during those years. People were housed in small settlements which sometimes included company-owned stores and homes. Many homes for families also accommodated boarders working in the mines. Because of limited transportation options, housing was built as close to the mines as possible. Although in close proximity, mining locations were physically separated by vast areas of stockpiled waste and depressions where unproductive mines were deliberately blasted for safety. Rail grades criss-crossed the landscape.

According to the official Michigan historical marker, the Gogebic Range “was the last of the three great iron ore fields opened in the Upper Peninsula and northern Wisconsin”. The first mine to go into production was the Colby mine. The Norrie Mine of Ironwood, located in 1883, was one of the greater bodies of iron ever found in Michigan. By 1890, more than thirty mines had shipped ore from the range. Mines closed as they ran out of ore, to be replaced by new mines. Virtually all the mining in the area was underground, and most of the ore was sent by rail to Ashland, Wisconsin or Escanaba, Michigan, there to be loaded into ore boats and shipped to America’s steel mills. In 1889, train service existed between Ironwood and Milwaukee, Wisconsin and Chicago, Illinois.

With its extensive forests, lumbering was also important to the historic economy of the County, supplying structural timber to the mining industry and supplying material for construction of communities. Logging was first done along the streams, with French-Canadians, Irish, Scotch, Scandinavian, Slavic, and Finnish labor forces. Communities dependent upon a forest economy were characterized by high seasonal unemployment, low wages, and high rates of population turnover. The industry impacted the environment as well. The timber industry declined along with the mining industries and as timber supplies were depleted, leaving a barren landscape. Many of the cutover areas reverted to the State for protection after farming failed on the poor soils, and this was the beginning of more sustainable forest practices including replanting and regeneration of forest lands.

The Sylvania Tract began as an exclusive hunting and fishing club, but was later acquired by the U.S. Forest Service as a prime recreation area within the Ottawa National Forest. The area is characterized by wild forests of maple, birch, and hemlock and many lakes and ponds.

The mining industry peaked in 1920 and ended in 1966.² The decline of the mining industry and permanent closures of the iron and copper mines in Gogebic County, along with reductions in timber harvesting in the Ottawa National Forest, precipitated an unemployment crisis in which many young people left the area in search of jobs. This led to a decline in total population, decreased school enrollments and a shift to an aging population. Citizens had come to depend on the iron and logging companies to provide for material, social and institutional needs, and now had to adjust to the period of economic decline which replaced the era of abundance and growth. Social and institutional structures

¹ Carlson, Joe. 1997. *A Not-So-Serious Glimpse Back on the History of Ironwood*. Ironwood Area Chamber of Commerce. (<http://www.ironwoodmi.org/oldironwood.htm>)

² Reardon, Kathryn and Kathleen Rubatt. 1966. *Gogebic County History*. (<http://www.gogebic.org/history.htm>)

needed to change to enhance independence, entrepreneurship and self-governance. The loss of jobs and corporate funding for community services created economic hardships that still persist.³

³ Spence, Leigh Ann. 2003. *Social Criteria and Indicators for Sustainable Forest Management in Gogebic County, Michigan*. Michigan State University thesis.

CHAPTER 2
COMMUNITY PROFILE



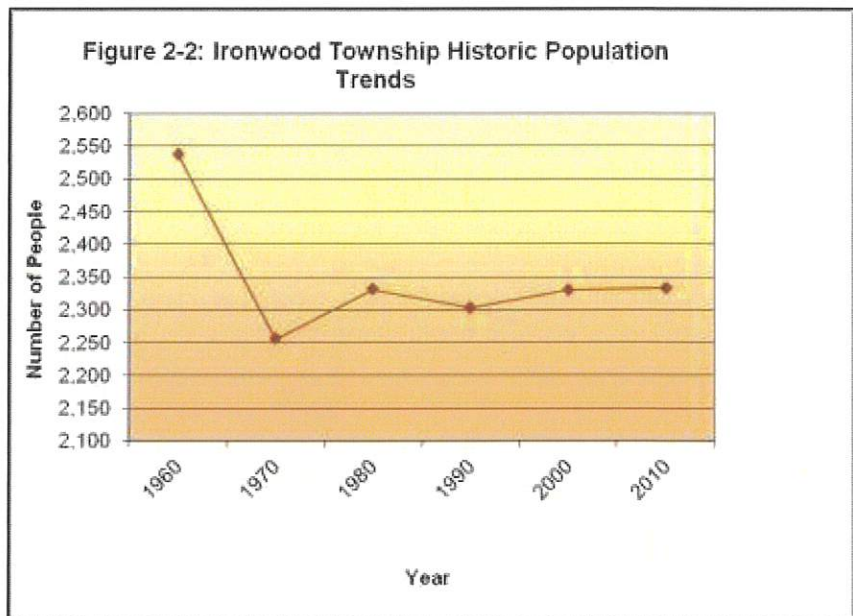
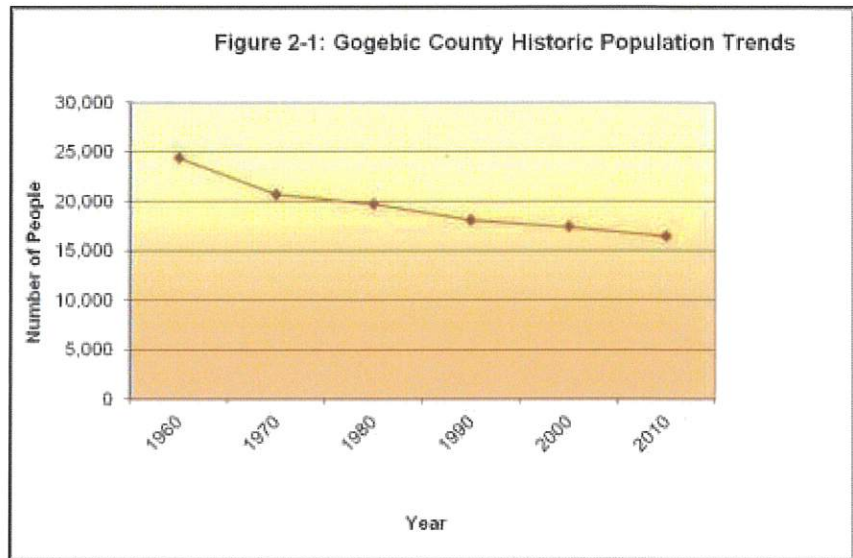
2.1 INTRODUCTION

Social and economic characteristics are essential components to consider in the preparation of any community development plan. An analysis of the community's existing and future population and household characteristics provides a foundation upon which a major portion of a plan is based. While an evaluation of a community's current characteristics provides insight into immediate needs and deficiencies, population projections provide a basis for determining future land use requirements, public facility needs, and essential services.

This section of the plan examines several elements which are central to understanding a community's overall population and housing characteristics. These items include population growth patterns and population shifts, age/gender breakdowns, racial composition, household size, housing characteristics, income characteristics, educational attainment, and employment patterns.

2.2 POPULATION TRENDS

Population growth is the most important factor influencing land use decisions in any community. Simply put, if the population of a community is growing, there will be a need for more housing, commerce, industry, parks and recreation, public services and facilities, or roads. Figure 2-1 and 2-2 show the population change from 1960 - 2010 for Gogebic County and Ironwood Township. As shown in the chart at right Ironwood Township's population peaked in 1960 and then dropped sharply until 1970. It then climbed in 1980 before dropping in the '90's. However, it has been on a steady climb since 1990, reaching just over 2,300 people in 2010. This fluctuation in population can most likely be tied to the resource based local economy. However, the population of Ironwood Township continues to grow even though the population of the County has been declining. The Gogebic Community College may also be contributing to the recent increase in population, along with the lowest taxes in Gogebic County.



2.3 POPULATION DENSITY

According to the 2000 U.S. Census, Ironwood Township had the most population per square mile of land area than any other Township in the County. As a whole, the County averaged 15.8 people per square mile. Ironwood Township had 13.3, followed by Bessemer Township at 11.2, Erwin Township at 7.6, Watersmeet Township at 5.8 and Wakefield Township at 2.0 people. The relatively higher population density in Ironwood Township can be attributed to the close proximity to the Cities of Ironwood and Bessemer. This geographic location allows people to live outside the City while still being close to places of employment and other services.

2.4 AGE DISTRIBUTION

Since the 1990 Census, the population of Gogebic County has been getting older. This aging of population over time may be due to the immigration of retirees, outmigration of younger populations, and an aging-in-place of residents. Although Ironwood Township is aging much the same way, the Township still has 83 percent of the population over the age of 18 and only approximately 22 percent over the age of 65. In 2010 the Township reported a median age of 47.8 years.

2.5 RACE

Another important characteristic of a community is its racial make-up. Knowing the racial makeup of a community helps to identify the diverse needs of its population.

Ironwood Township, like much of Gogebic County is almost exclusively white. The 2010 Census reported 97.5 percent White, 0.21 percent Black, 0.55 percent American Indian, Eskimo or Aleutian and 1.63 percent Other. For comparison, Gogebic County reported 91.7 percent White, 4.13 percent Black, 2.4 percent American Indian, Eskimo or Aleutian, and 1.80 percent Other.

2.6 HOUSEHOLDS

Since the 1970's, the nationwide trend has been a decline in household size. There are many reasons for this trend including higher divorce rates, families have fewer children, elderly living alone, and other.

Ironwood Township's average household size has decreased from the 2000 Census to the 2010 Census. In 2000 Ironwood Township recorded an average household size of 2.27 people. Gogebic County saw a similar decline, in 2000 the average household size was 2.22 and in 2010 it was reported to be 2.11. This could be a result of an aging population.

2.7 INCOME

The United States Census Bureau's American Community Survey produces population, demographic and housing unit estimates. Since detailed income data from the 2010 Census has not yet been released, this survey for 2010 was used. Table 2-3 compares income values for Ironwood Township and Gogebic County. As shown in the table, the median household income is \$9,219 higher than the County. However, both the County and the Township reported increases over the 2000 Census. In 2000, Ironwood Township median income was \$36,053 compared to \$42,892. The County reported a median income of \$27,405 in 2000 and \$33,673 according to the estimates in 2010.

2.8 EMPLOYMENT

The chart at right illustrates the major occupational categories for Gogebic County. Management, professional, and related occupations are the most prevalent at 27 percent of all employed civilian population 16 years and older. Sales and office occupations are 22 percent; and service occupations are 21 percent. Production, transportation, and material moving occupations are 18 percent, followed by construction, extraction, and maintenance occupations at 11 percent. Only 1 percent of those employed are in farming, fishing, and forestry.

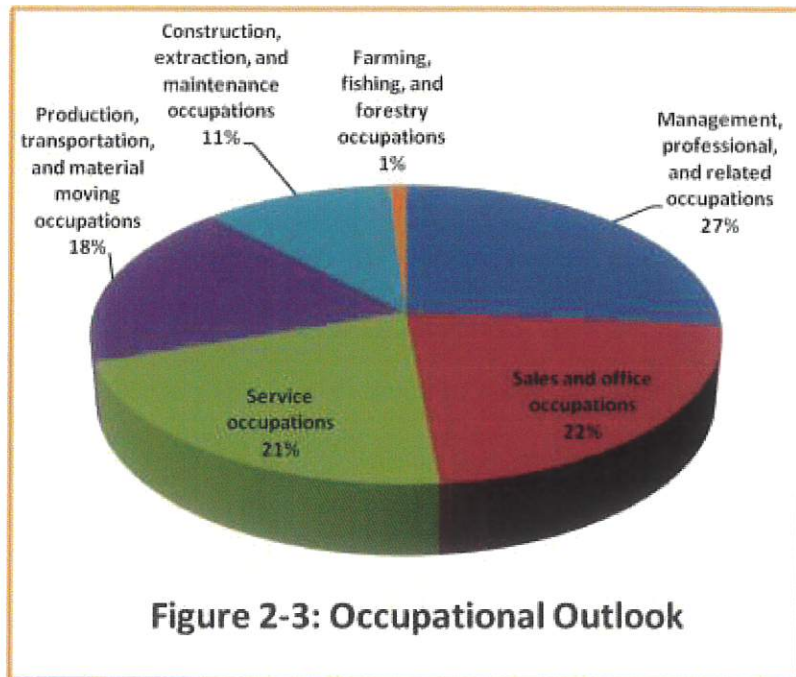


Figure 2-3: Occupational Outlook

Michigan has a Green Jobs Initiative, targeting the emerging sectors of alternative energy production and efficiency, green building construction and retrofitting, and agriculture and natural resource conservation. Green jobs are defined as all occupations necessary to sustain and grow these emerging sectors. Examples of jobs within each sector follow:

- **Alternative Energy Production and Efficiency**
 - Automotive Industry
 - Automotive Engineers
 - Automotive Technologist
 - Diesel Technologist
 - Energy Production Industry
 - Photovoltaic Installer
 - Geologists
 - Welders
 - Research and Design Industry
 - Chemical Engineer
 - Electrical Engineer
 - Mechanical and Industrial Technologists
 - Mechanical Engineers
- **Green Building Construction and Retrofitting**
 - Building Industry
 - Heating and Cooling Technologist
 - Electrician
 - Architects
 - Energy Audit Certification Professionals
 - Lighting Industry
 - Electrical Technologists
- **Agriculture and Natural Resource Conservation**
 - Agricultural Industry

- Irrigation Technician
- Soil Technologists
- Botanist
- Farm Manager
- Resource Conservation Industry
 - Civil Engineer
 - Forester
 - Wildlife and Fisheries Technologist

Green job training programs in the Upper Peninsula region were listed by this program as including:

- **Lake Superior State University**
 - Electrical Engineering, Bachelor's Degree
 - Mechanical Engineering, Bachelor's Degree
- **Bay de Noc Community College**
 - Engineering Technologies/Technicians
 - Water Resource Management, Associate's Degree
 - Automotive Technology, Associate's Degree
 - Welding Technology, Certificate
- **Gogebic Community College**
 - Construction Trades, Utility Technician, Certificate
 - Computer-Aided Design Technology, Associate's Degree
 - Automotive Technology, Associate's Degree
 - Automotive Technology, Certificate
- **Michigan Technological University**
 - Chemical Engineering, Bachelor's Degree
 - General Forestry, Bachelor's Degree
- **Northern Michigan University**
 - Construction Trades, Lineworker, diploma
 - Electrical and Electronic Engineering-related Technology Technician, Associate's Degree
 - Electrical and Electronic Engineering Technologies/Technician, License
 - Aircraft Mechanic/technician-Airframe, Associates Degree
 - Heating, Air Conditioning And Refrigeration Mechanic And Repair, Associates Degree
 - Heating, Air Conditioning And Refrigeration Mechanic And Repair, Certificate

This list is not exhaustive of all programs or opportunities, but gives an idea of focal areas for the future as well as area opportunities. The Michigan governmental website lists high demand occupations for Baraga, Gogebic, Houghton, Iron, Keweenaw, and Ontonagon Counties as being the following;

- **Architecture and Engineering Occupations**
 - Industrial engineers
 - Mechanical engineers
 - All other engineers
- **Arts, Design, Entertainment, Sports, and Media Occupations**
 - Coaches and scouts
 - Musicians and singers
- **Building and Grounds Cleaning and Maintenance Occupations**
 - Janitors and cleaners except maids and housekeeping
- **Business and Financial Operations Occupations**
 - Accountants and auditors
 - Business operations specialists
 - Cost estimators
 - Purchasing agents, except wholesale, retail, and farm products
- **Community and Social Services Occupations**
 - Child, family, and school social workers

- Clergy
- Educational, vocational, and school counselors
- Social and human service assistants
- **Construction and Extraction Occupations**
 - Carpenters
 - Construction laborers
 - Electricians
 - First-line supervisors/managers of construction trades and extraction workers
 - Helpers—pipelayers, plumbers, pipefitters, and steamfitters
 - Operating engineers and other construction equipment operators
 - Painters, construction, and maintenance
 - Plumbers, pipefitters, and steamfitters
- **Education, Training, and Library Occupations**
 - Elementary school teachers
 - Graduate teaching assistants
 - Middle school teachers
 - Preschool teachers
 - Secondary school teachers
 - Special education teachers, preschool, kindergarten, and elementary school
 - All other teachers
- **Food Preparation and Serving Related Occupations**
 - Cooks – fast food, restaurant, short order
 - First-line supervisors/managers of food preparation and serving workers
 - Food preparation workers
- **Healthcare Practitioner and Technical Occupations**
 - Licensed practical and licensed vocational nurses
 - Medical and clinical laboratory technologists
 - Pharmacy technicians
 - Radiologic technologists and technicians
 - Registered nurses
- **Healthcare Support Occupations**
 - Dental assistants
 - Medical assistants
- **Installation, Maintenance, and Repair Occupations**
 - Automotive service technicians and mechanics
 - First-line supervisors/managers of mechanics, installers, and repairers
 - Industrial machinery mechanics
 - Maintenance and repair workers, general
- **Management Occupations**
 - Chief executives
 - Construction managers
 - Education administrators, elementary, secondary, and postsecondary
 - Food service managers
 - General and operations managers
 - All other managers
 - Medical and health services managers
 - Sales managers
- **Office and Administrative Support Occupations**
 - Hotel, motel, and resort desk clerks
 - Payroll and timekeeping clerks
 - Tellers

- **Personal Care and Service Occupations**
 - First-line supervisors/managers of personal service workers
 - Hairdressers, hairstylists, and cosmetologists
 - Personal and home care aides
- **Production Occupations**
 - Assemblers and fabricators
 - Bakers
 - First-line supervisors/managers of production and operating workers
 - Helpers-production workers
 - Inspectors, testers, sorters, samplers, and weighers
 - Laundry and dry-cleaning workers
 - Machinists
 - Team assemblers
 - Water and liquid waste treatment plant and system operators
 - Welders, cutters, solderers, and brazers
- **Protective Service Occupations**
 - Correctional Officers and Jailers
 - Firefighters
 - Police and sheriff's patrol officers
- **Sales and Related Occupations**
 - Gaming change persons and booth cashiers
 - Sales representatives, wholesale and manufacturing, except technical and scientific products
- **Transportation and Material Moving Occupations**
 - Bus drivers, school
 - Cleaners of vehicles and equipment
 - Driver/sales workers
 - Industrial truck and tractor operators

2.9 HOUSING

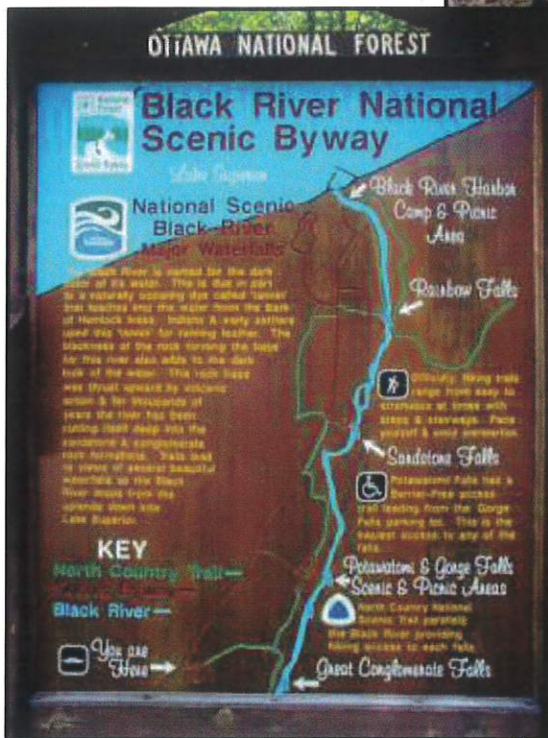
Shelter is a primary need of every community. Meeting the housing needs of residents in different stages of life and circumstances can help to revitalize rural communities and retain residents. One way to do this is by supporting mixed-use neighborhoods which combine residential and neighborhood commercial uses in an effort to promote walking and a sense of community. This allows greater independence for those who either do not have the opportunity or prefer not to depend on the automobile for transportation.

Over the last ten years the total number of occupied housing units in the Township increased by four to 1,028. The number of owner occupied homes decreased from 875 in 2000 to 853 in 2010. While the number of renter occupied homes increased from 149 in 2000 to 175 in 2010. Of the 1,028 owner occupied housing units the majority (49.1 percent) are 2-person households, followed by 25.1 percent one-person and 12.9 percent three-person. The majority (47.4 percent) of renter occupied housing units are one-person households, followed by two-person households at 30.3 percent, 9.7 percent three-person.

Although the number of occupied housing units has increased over the last ten years, so has the number of vacant housing units. The total number of vacant housing units in the Township has increased by 95 units between 2000 and 2010. This increase brings the total number of units up to 680. The largest change in the categories was vacant homes for sale. In 2000 there were only 13 vacant homes for sale, in ten years this number jumped 230 percent to 50 homes. This may indicate that people are finding it necessary to either sell their home and rent or move out of the area.

CHAPTER 3

NATURAL RESOURCES



3.1 INTRODUCTION

The natural environment plays a major role in land development. The natural environment can significantly hinder land development such as a steep slope prohibiting the construction of any structure. Conversely, the natural environment can be impacted by land development. An example would be the increased water runoff and erosion potential caused by clearing vegetation. Thus, when preparing a Master Plan, it is important to examine the natural environment in order to determine where development is best suited, and where it should be discouraged.

In any environmentally sensitive area within a community, development should be prevented. Environmentally sensitive areas are lands whose destruction or disturbance will affect the life of a community by either:

- Creating hazards such as flooding or slope erosion.
- Negatively effecting important public resources such as groundwater supplies and surface water bodies.
- Wasting productive lands and non-renewable resources.

Each of these effects is detrimental to the general welfare of a community, resulting in social and economic loss.

This chapter has two main goals. First, to identify areas in the Township that is best suited for development. The focus is on areas that will minimize development costs and provide amenities without adversely impacting the existing natural systems. The second, to identify land that should be conserved in its natural state and is most suitable for conservation, open space or recreation purposes.

Climate, geology, topography, woodlands, wetlands, soil conditions, water resources, and fish and wildlife resources are among the most important natural features impacting land use in Ironwood Township. Figure 3-1 on page 23 shows topography, rivers and waterfalls within the Township.

3.2 CLIMATE

According to the National Climatic Data Center, the average January temperature is 10 degrees Fahrenheit and the average July temperature is 66 degrees Fahrenheit. From the period 1971 to 2000, the maximum average temperature is 50 degrees Fahrenheit, and average minimum temperature is 29 degrees Fahrenheit, with overall average temperature of 39 degrees Fahrenheit. Average annual precipitation is 35 inches, and snowfall is 180 inches. Between 1989 and 2007, there were two years that annual snowfall reached 300 inches, and two other years with snowfall of about 280 inches, but most years had snowfalls between 155 and 220 inches. Peaks were in 1996-1997 and 2001-2002.

3.3 TOPOGRAPHY

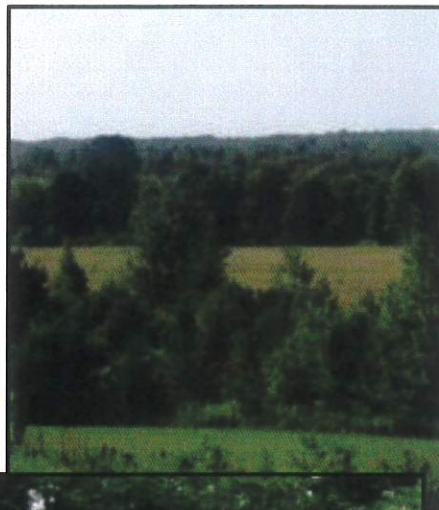
The Township contains two large hilly formations. The Gogebic Range, where much of the areas iron ore is found, runs from the Montreal River to Lake Gogebic. The second formation, named the Gogebic Highlands, runs from Little Girl's Point to the Porcupine Mountains.

3.4 FORESTLANDS

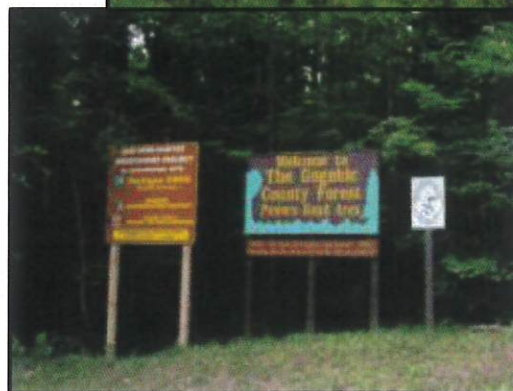
The forests of Ironwood Township and the surrounding area have matured again since the early mining and logging days denuded the landscape. The forests consist of mostly northern hardwoods with a few white pines and other softwoods that provide continued opportunities in forestry management and production. The forests are also an important part of the culture of the Township, providing opportunities

for hunting, hiking, fishing, camping, snowshoeing, skiing, canoeing, biking, running, scenic viewing, and wildlife and nature experiences.

The Gogebic County forest system was established in 1943 to supervise the management of forest lands received from the State of Michigan due to tax delinquency. The original deed restrictions required that the lands could be used only for forestry purposes or they were revert back to the State, and the County was prohibited from selling the lands. In addition, the County received 3,240 acres from the General Motors Corporation as a part pay/part donation basis. The County also received about 10,000 acres from the Mosinee Paper Mill Company who was leaving the area on the same payment basis.



The County has developed a sustainability plan, and arranged its management units (Ironwood Township, Erwin-Bessemer Townships, Wakefield Township units) based on the protection of deer yards, protection of watersheds, protection and enhancement of tourism, water conservation and prevention of floods, proximity to the population center, future income, selective cutting, and forest products and employment. The Forestry and Parks Commission is a self-sustaining unit of County government dispersing an annual appropriation to the County general fund and paying a portion of revenues (in lieu of taxes) to individual townships based on acreage. Revenues come from timber sales, the sale of gravel, and Special Use Permits.



3.5 WETLANDS

Wetlands are often referred to as marshes, swamps or bogs. The US Army Corps of Engineers defines wetlands as "those areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Residents of Michigan are becoming more aware of the value of wetlands. Beyond their aesthetic value, wetlands improve water quality of lakes and streams by filtering polluting nutrients, organic chemicals and toxic heavy metals. Wetlands are closely related to high groundwater tables and serve to discharge or recharge aquifers. Additionally, wetlands support wildlife, and wetland vegetation protects shorelines from erosion.

3.6 SOILS

The United States Natural Resources Conservation Service has produced a detailed Soil Survey for Gogebic County. This Survey is available for download on their website (soils.usda.gov). However, the Township as well as the County can be generalized into the following areas. (1) areas dominated by loamy soils on the uplands; (2) areas dominated by loamy soils associated rock outcrops on uplands; (3) areas dominated by loamy soils with associated sandy soils on uplands; (4) areas dominated by organic soils with associated wet loams on uplands; (5) areas dominated by heavy loamy soils on uplands and (6) clayey, lacustrine soils on uplands.

3.7 WATER RESOURCES

Both human and natural ecological systems depend upon water. Perhaps the most valuable natural resource of Ironwood Township is the abundance of fresh water. Having been of historic importance, it is also the resource that will, to a great extent, determine the future of the area. Thus, the management of water becomes a prime factor in planned development. The principal reasons for controlling development on or near water are to protect watersheds to preserve the quality and quantity of the water supply, and to prevent damaging floods.

Ironwood Township rests on the shores of Lake Superior. Statistics place Lake Superior as the largest Great Lake in both surface area (31,700 sq. miles) and volume (2,900 cubic miles). Not only is Lake Superior the largest of the Great Lakes, it has the largest surface area of any freshwater lake in the world. Lake Superior is bordered by the states of Michigan, Wisconsin, and Minnesota, and the Canadian province of Ontario and has a total shoreline length of 2,726 miles including islands.

Ironwood Township has approximately 30 miles of Lake Superior shoreline. The shoreline exists as a major attraction for local residents and tourists, and helps to form the overall character and attractiveness of the community. Lake Superior is certainly one of the most important environmental features in the Township given its overall impact on the Township's history, economy, development, and character.

In addition to Lake Superior, the Township also contains numerous smaller sized surface water bodies. The two prominent streams include Montreal River and the Black River as well as numerous other lakes and streams.



Top left: Common loon. Top right: Red-shouldered hawk. Center Left: Small yellow pond lily. Center: Goblin moonwort. Center right: Calypso (Fairy-slipper).

3.8 FISH AND WILDLIFE RESOURCES

The Michigan DNR maintains a natural features inventory listing plant and animal resources that are endangered, threatened, or of special concern. The lists include all elements (species and natural communities) for which locations have been recorded in MNFI's database for each county. Information from the database cannot provide a definitive statement on the presence, absence, or condition of the natural features in any given locality, since much of the state has not been specifically or thoroughly surveyed for their occurrence and the conditions at previously surveyed sites are constantly changing. The County Elements Lists should be used as a reference of which natural features currently or historically were recorded in the county and should be considered when developing land use plans.

Included in the list are scientific name, common name, element type, federal status, and state status for each element.

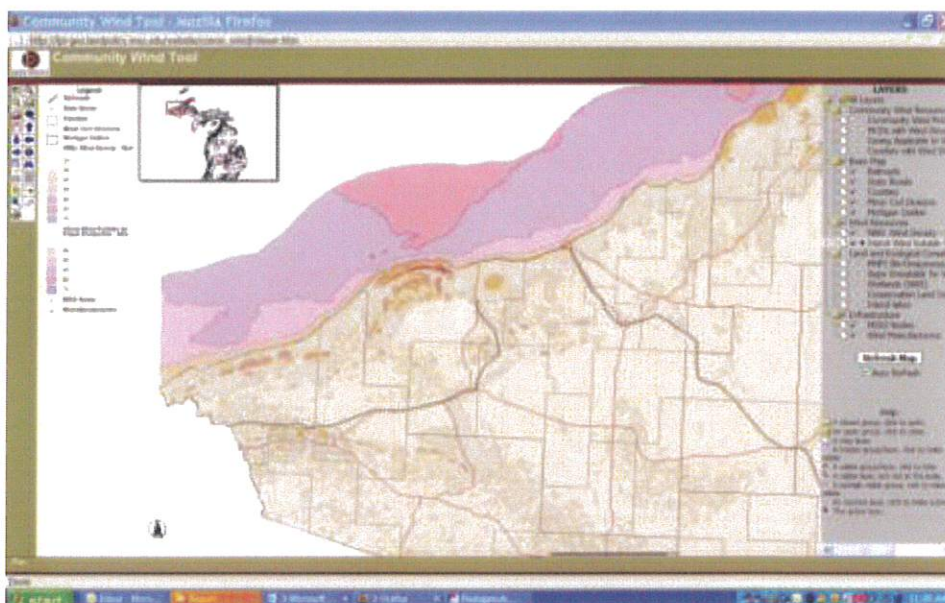
Endangered fish species include the Redside Dace which is a small minnow. Threatened animal species include the Red-shouldered hawk, Common loon, Lake herring or Cisco fish, and Delicate Vertigo. Animal species of special concern include the Bald Eagle, *Northern goshawk*, *Osprey*, *Wood Turtle*, *snails the Crested vertigo and* Mystery vertigo, and insects the Extra-striped snaketail, Splendid clubtail, and Rapids clubtail.

Endangered plants include the Small yellow pond lily. Threatened plant species include the Goblin moonwort, Calypso or fairy-slipper, Assiniboia sedge, Large toothwort, Woodland everlasting, Hedge-hyssop, Farwell's water milfoil, Ginseng, Sweet coltsfoot, Seaside crowfoot, Prairie buttercup, and New England violet. Special plant species of concern include the Purple clematis, Male fern, Fragrant cliff woodfern, Fir clubmoss, and American shore-grass.

There is a significant interest in game birds and fish in Gogebic County, such as Ruffed Grouse and Trout. Others are also interested in song birds such as the endangered Kirtland's warbler. Each species requires different variations of the four basic habitat components which are food, water, cover, and space. It is important to determine what species are likely to frequent the existing habitat and then determine the specific habitat needs of those species. It is also important to keep in mind that for every management decision implemented, some species will be benefitted and others will be negatively impacted. There are always tradeoffs involved. Michigan provides a landowner's guide for species management and more information is available from the local conservation district. The Gogebic County Forestry and Parks Commission partners with the Ruffed Grouse Society in habitat conservation and in developing hunter walking trails, and also works to protect the principal trout streams of the Montreal, Black, and Presque Isle Rivers and their associated feeder streams.

3.9 WIND ENERGY POTENTIAL

The Land Policy Institute at Michigan State University has developed a Wind Prospecting Tool to determine wind generating capacity. In addition to good wind resources, communities need to understand what wind companies need for optimal development opportunity. This is a very capital intensive industry, so it stands to reason that the projects with the most potential and fewest obstacles will be completed first. In addition to good wind resources, geophysical factors, land/economic factors, environmental concerns, and local policy impact a location decision. For example, communities need zoning enabling legislation and incentives to stand out from the competition and reduce transaction costs. The study



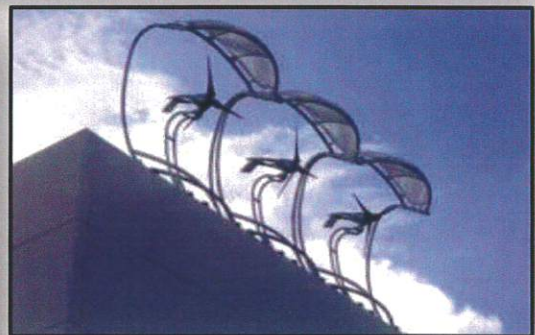
relates mostly to utility scale wind development, and utilizes a 50m wind density map developed by the National Renewable Energy Lab (USDOE). Locations were scored based on wind speed, agricultural land contiguity and area, forest land contiguity and area, per acre value of agricultural land, population density, and population density change.

Parts of Ironwood Township show areas of agricultural land with suitable wind density at 50m. Ironwood, Wakefield, and Marenisco Townships all ranked favorably in area of forest land with suitable wind density at 50m. While not as good as agricultural land due to siting concerns, these forests do offer suitable quantities of land.




In communities with lower population densities, there is less chance of concern with issues such as viewshed impingement, ice throw, flicker fusion, and bird strikes.

Wind score areas of class three or better wind are considered to be the threshold for utility scale wind development. Areas having greater area with this class of wind score higher. Ironwood and Wakefield Townships score higher on this scale, with the three cities and Bessemer Township scoring near the bottom of the possible scale, yet within the range of possibility.

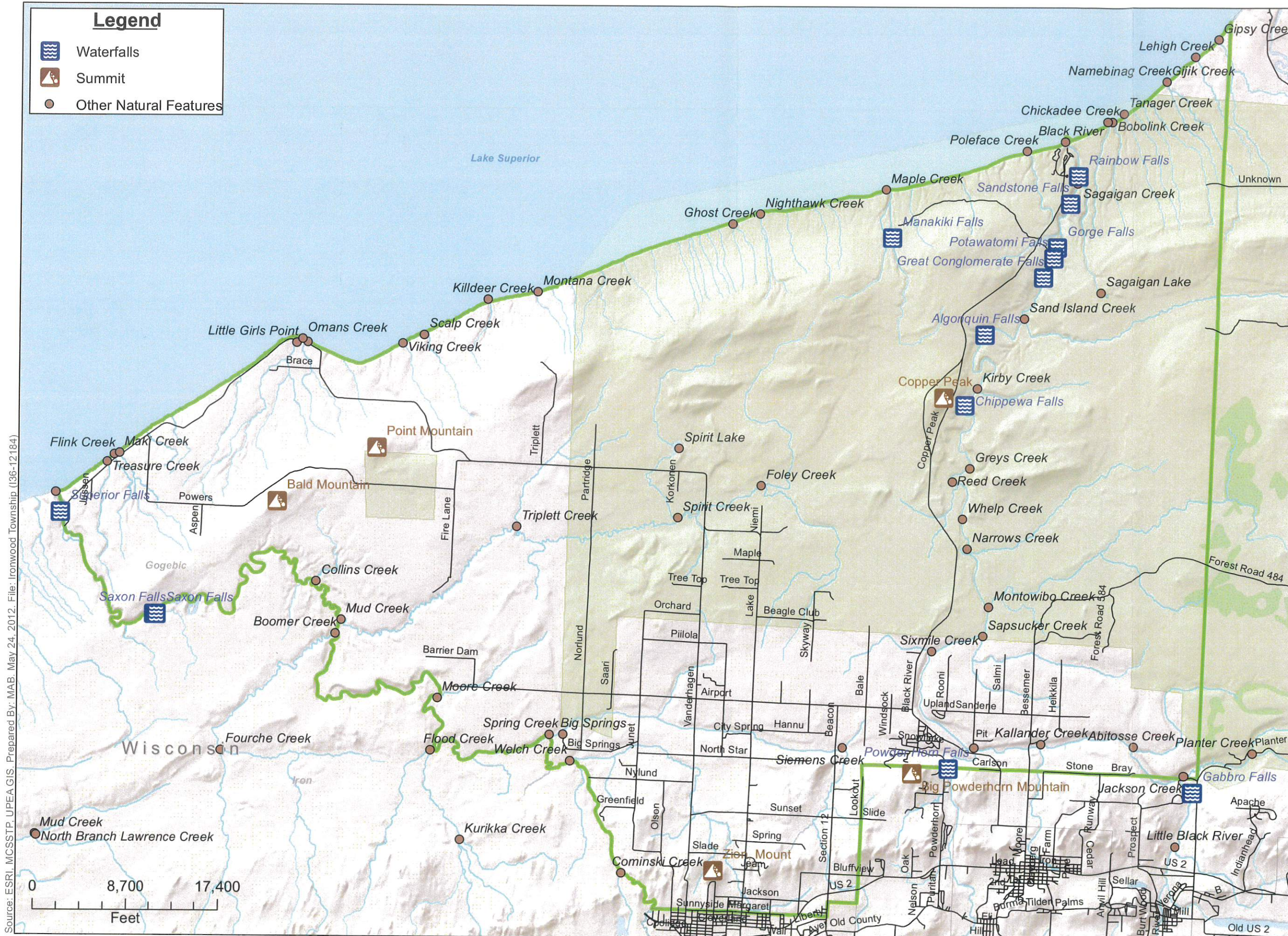
It is recommended that Ironwood Township update their zoning ordinances to permit wind energy infrastructure in both large and small scale systems in order to be prepared for funding and investment opportunities.



Legend

-  Waterfalls
-  Summit
-  Other Natural Features

**Figure 3-1:
Natural Features
Ironwood Township,
Michigan**



Source: ESRI, MCSSTP, UPEA GIS. Prepared By: MAB, May 24, 2012. File: Ironwood Township (136-12184)



CHAPTER 4
EXISTING LAND USE



4.1 INTRODUCTION

Ironwood Township and Gogebic County presents a mostly rural landscape with urbanized development concentrated mostly in the three cities of Ironwood, Bessemer, and Wakefield and along the US-2 corridor that connects the cities. The cities are located in the far western portion of the county. Most of the eastern portion of the county is forested.

Over 80 percent of the county is forest land containing mostly aspen, birch, maple, and softwoods. The Ottawa National Forest comprises almost 44 percent of the land area of the county. Only about 9 percent of the county is state or county forest lands.

The original land use pattern in Gogebic County developed as a result of the mining industry. In the early days, the mining companies built mixed-use, self-sustaining communities close to the individual mining locations because workers needed to be within walking distance or along a transportation system. With the advent of the railroad, larger urban centers developed along the route between the mines. Recently, development is occurring in waterfront locations in the County, and along the highway corridors since modern communities are oriented to the automobile.

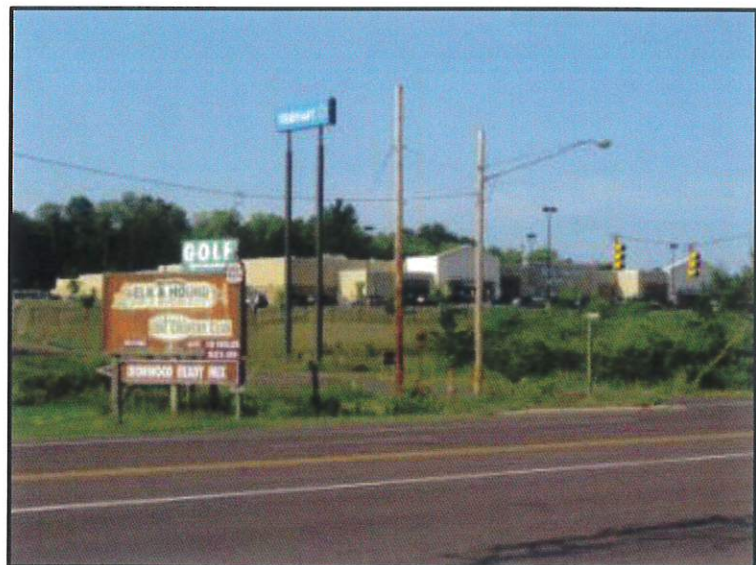
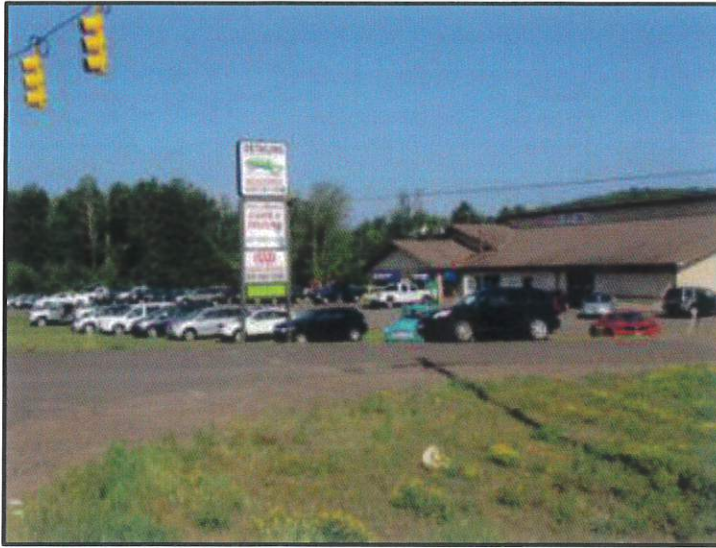
Land use is impacted by transportation, the natural environment, economic base, conservation and preservation, land ownership, and the public interest. Local government action at all levels (federal, state, county, and local) plays an important role in land use through regulation and public investment. Public investment in schools, parks, roads, water and sewer extensions, etc all provide opportunity for development and will often determine what type of development will occur. Recent infrastructure improvements, including water, sewer, road arterials, and parks make the Township one of the most progressive communities in the region. The natural environment impacts land development because of topography, soil conditions, drainage potential, and tract size. Much of the land is placed into conservation through public ownership which caters to public interest in recreational uses. Many areas of the Upper Peninsula are dominated by major corporate landowners who are holding the land for resource purposes such as timber production or mining. In recent years, development companies have begun to purchase large tracts of land and divide it into smaller fragments for future development. This is occurring because the land has greater market value for other uses such as single-family development. This has a huge impact on land use. Finally, through legislative authority, communities regulate land use through zoning laws and choice of building and sanitation codes. This establishes parameters within which development can occur. It is important that future land use decisions be realistic in light of the ability of local governments to provide essential public services in a fiscally responsible manner.

4.2 IRONWOOD TOWNSHIP CURRENT LAND USE

Current land use in the Charter Township of Ironwood includes the following:

- Institutional—this land use is located at the site of Gogebic Community College
- Transportation/Utilities/Communication—this land use is located at the site of the airport
- Mixed-Use—located along N. Lake which is County Road 505 up to County Highway 204 (airport road) and on Section 12 Road
- Commercial—located along County Highway 204 just south of the airport and along the US-2 highway corridor
- Single Family Residential—located in the southwest portion of the township adjacent to Ironwood and the Gogebic Community College.
- Multi-Family Residential—located near the airport near the Big Powderhorn Mountain Resort and in scattered locations along County Road 505 and just south of the airport.
- Recreational—located northeast of the Big Powderhorn Mountain Resort

All other areas of the township are rural residential, agriculture, or forestry and much is used as commercial forest reserve lands, county forest, local parks, or the Ottawa National Forest.



Source: ESRI, MGSSTP, UPEA GIS, Prepared By: MAB, March 19, 2012, File: Ironwood Township (136-12.184)

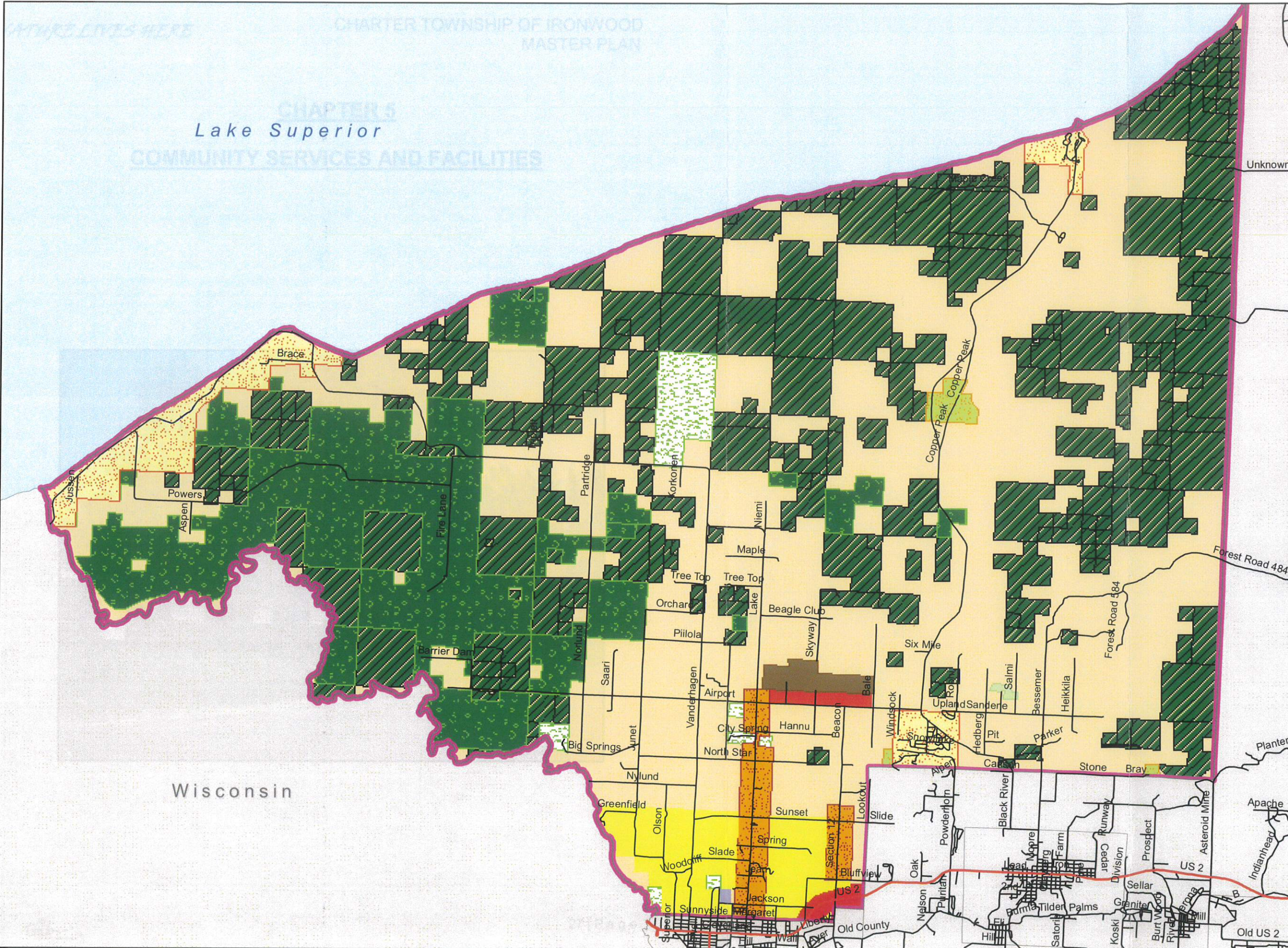


Figure 4-1: Current Land Use Map

Ironwood
Township,
Michigan

Legend

- Utilities
- SF Residential
- Institutional
- Mixed Use
- Commercial
- Recreation
- Multi-Family Residential
- County Land
- Local Land
- Private Land
- State Land
- Commercial Forest Act Land
- Recreation Lands

0 4,300 8,600 Feet



Note: Current Land Use Data
Originally Created in 2008
by UPEA

5.1 INTRODUCTION

Transportation infrastructure serves to tie a community together and link it to the rest of the outside world. Transportation systems include roads, bridges, aviation, rail, public transit, and non-motorized systems. Together, these networks create economic opportunity and provide access to markets, goods, and services not found in the community. The quality of these assets reflects and impacts community health and vitality.

5.2 TRANSPORTATION

Circulation, utility, and communication infrastructure serves to tie a community together and link it to the rest of the outside world. Local streets and pedestrian networks should provide safe, reliable access to work, shopping, recreation, and residences. Regional transportation and communication networks create economic opportunity and provide access to markets, goods, and services not found in the community. The quality of these assets reflects and impacts community health and vitality.

ROADWAY NETWORK

The principle transportation mode in the Township today is vehicular transportation served by the roadway network. Roads have both functional and aesthetic value. As the preferred transportation mode, roads create a path of first impression for the public space of a community. Functionally, roads serve two basic purposes, the movement of traffic (mobility) and provision of access to adjoining property. The design of a road depends principally on its functional classification and the traffic volume it is expected to accommodate at some future time. Each of the roads within the Township has a specific traffic capacity, design standard, and design use depending on its primary function. By defining the function of roads and their service to the community, the appropriate



land uses can be encouraged adjacent to these roads. Different design elements of roads include the number of lanes, width and surfacing of shoulders, width of structures, type of surface, and design speed. Land uses and roadway function is closely connected. Roadway capacity and design influences future development. More intensive development usually occurs along higher capacity roadways that provide convenient access to the largest market. So as more arterial improvements are made, and accessibility and value of properties increases, leading to even more intensive development. With this development come increased congestion, traffic, and safety problems. Pressure builds to make even more arterial improvements, starting the cycle all over again.

It is important to employ access management principles to preserve proper road function and the value of public investment along major roads. The road network in the Township is described in detail below.

National Functional Classification

The Federal Highway Administration classifies roadways based on the type of service the roadway is intended to provide. Based on this system, roadways are classified into one of three broad categories, arterials, collectors, and local roads. The Federal Highway Administration's National Functional Classification has been implemented on most roadways in Ironwood Township.

Roadways classified as principal arterials accommodate major traffic movement over long local or regional distances. Collector roadways emphasize access to abutting land area and the collection of traffic from distribution to the larger arterial system which may exist within the municipality or neighboring municipalities. Local roads emphasize access to abutting properties and the collection of traffic for distribution to collector and arterial corridors. Local roads make up the majority of roadways in Ironwood Township.

The National Functional Classification breakdown is shown on Figure 5-1 on page 32.

Road Maintenance

The Gogebic County Road Commission uses a PASER rating system to evaluate road conditions. As of 2009, the GCRC statistics show that the road conditions are poor and five of the six townships in Gogebic County are in the bottom two percent of the 1586 governmental jurisdictions in the State of Michigan.



Access Management

U.S. Highway 2 is the only major road traveling through Ironwood Township. This roadway serves two primary purposes. The first is to move vehicles safely at design speeds traveling throughout the region or the country; the second is to link communities along the route. However, the highway also provides access to adjacent land uses within the community. In order to create a safe and effective corridor within the Township, access management principles should be implemented before major problems arise in relation to new development.

According to the Michigan Access Management Guidebook, "access management is a set of proven techniques that can help reduce traffic congestion, preserve the flow of traffic, improve traffic safety, prevent crashes, preserve existing road capacity, and protect investment in roads by managing the location, design, and type of access to property." Stated another way, access management is the improved control of the location, spacing, design, and operation of driveways and intersections resulting in freer flowing conditions and less conflicts. Access management principles attempt to reduce access points along a corridor, while still accounting for the needs of the current and future land uses as well as the needs of all users (motorists, pedestrians, and bicyclists).

Access management improves safety by reducing conflict points. Conflicts are caused when cars slow to turn (increasing risk of rear end crashes), or merge in traffic (causing angle crashes), or cross the path of oncoming traffic. The five generally accepted benefits of access management include:

1. Improve traffic safety and prevent crashes
2. Shorten travel time and reduce motorists costs
3. Extend the function and capacity of roadways
4. Improve access to property while enhancing the value of private property

5. Results in nicer communities with a calmer traffic environment, more green space, an opportunity for streetscapes and non-motorized transportation modes

There are 15 key access management principles outlined in the Michigan Access Management Guidebook. They are:

1. "Reasonable access" to property abutting a state highway or county road is protected by state law. "Direct access" is not mandated if other access options are available.
2. Proper application of access management techniques assures businesses and drivers of safe and convenient access and taxpayers of more cost-effective use of their money spent on roads.
3. The more important the roadway (the higher its functional classification) the higher the degree of access management that should be applied so that the road continues to perform according to the function it was designed to serve.
4. Interconnections between adjacent sites and between new subdivisions and the existing street system are important in maintaining safe and efficient traffic flow.
5. Limit the number of driveways and other conflict points.
6. Separate driveways and other conflict points.
7. Improve driveway operation by fitting the best design to the need.
8. Remove turning vehicles from through traffic lanes.
9. Reduce conflicting traffic volumes.
10. Improve roadway operations on arterials by achieving the proper balance between traffic flow and access to abutting property.
11. Lay the foundation for correcting existing access management problems and preventing future ones in the local comprehensive plan and/or an access or corridor management plan.
12. To optimize the benefits of access management, coordination with all appropriate transportation agencies is essential when preparing access management plans, design techniques, and the elements of local access management regulations.
13. To optimize the benefits of access management, multi-jurisdictional coordination with all appropriate transportation agencies is essential when applying access management standards on lot split, subdivision, site plan, and other zoning reviews.
14. Educate the public about the benefits of access management and involve them in the development of access management plans and implementation activities.
15. Many access management techniques are best implemented through zoning and other through local lot split, subdivision, condominium and private road regulations.

A collaboration exists among jurisdictions in Gogebic County and MDOT to adopt consistent access management principles and ordinances and to provide consistent review of projects in relation to access management standards. Ironwood Township currently participates as a member of the U.S. 2 Corridor Access Management team, and plans to incorporate the collaborative access management standards into the zoning ordinance update. This will be accomplished through overlay regulations and site plan review criteria.

Regulations that promote a connected street system also result in fewer vehicle miles traveled; decreased congestion; improved accessibility of developed areas; improved facilitation of walking, bicycling, and use of transit; reduced demand on major thoroughfares; more environmentally sensitive layout of streets and lots; safer school bus routes; and interconnected neighborhoods that foster a greater sense of community. These goals are supported in this master plan.

Ironwood Township will enhance future connectivity of road systems by excluding cul-de-sacs, requiring stub streets to serve adjacent undeveloped properties, requiring street connections to nearby activity centers, requiring connection to or continuation of existing or approved public streets, and requiring bicycle/pedestrian access between residential areas and parks, school, shopping areas, or other activity centers.

Lake Superior

Figure 5-1: Functional Classification

Ironwood Township, Michigan

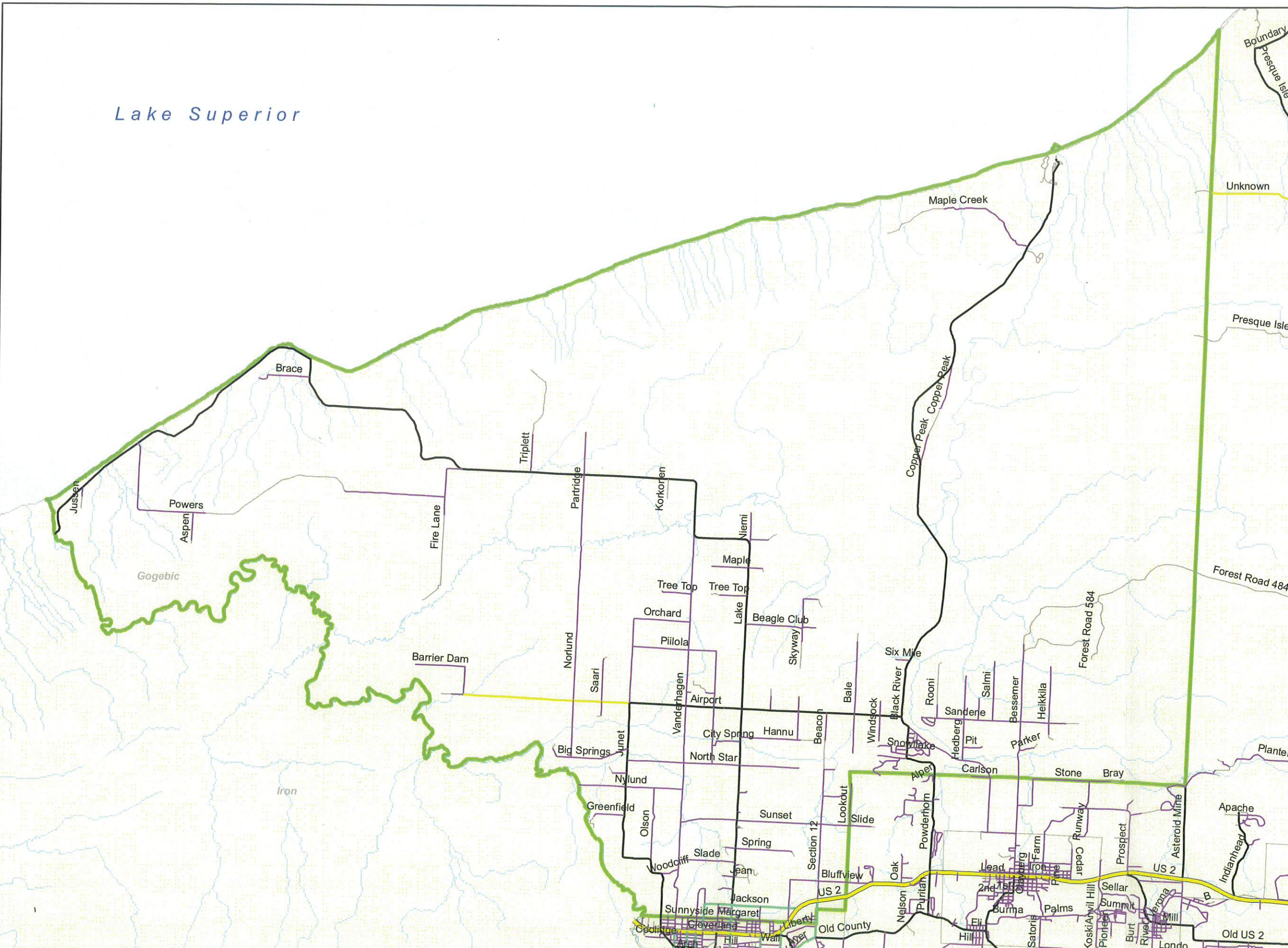
Legend

Roads

NFC

- Unclassified
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local

Source: ESRI, MCSSTP, UPEA GIS. Prepared By: MAB, February 13, 2012. File: Ironwood Township (136-12184)



PUBLIC TRANSPORTATION

Ironwood Township is served by a countywide transit service and an intercity bus. The Gogebic County Transit operates a Little Blue Bus system serving Gogebic County. The hours of operation are 6 a.m. to 6 p.m., Monday through Friday. The local bus consists of six lift-equipped and radio dispatched buses. The service is a combination of bus routes with deviation “dial a ride” services and a township route.

The Greyhound commercial bus service operates a daily bus Monday through Friday. An Ironwood to Duluth/Minneapolis bus route and an Ironwood to Escanaba/Lower Michigan route are provided. A local route to the Grand View Hospital provides fourteen daily trips for health care services.

Area seniors and persons with disabilities compose nearly 70% of Gogebic County Transit ridership which provides transportation to health providers and other locations. Innovative intercity public transportation options will become more important with the aging population of the County. State subsidies may decrease, necessitating new solutions.

RAILROAD

The Canadian National Railway operates a railway which travels east from Ironwood to a terminus at White Pine.

PORT

Nearest commercial water ports are in Ontonagon and Houghton, and freight rail east west service exists for timber, paper mills, and iron ore industries. Canadian truck traffic passes through the area to get to western Canada and Wisconsin.

AIR TRANSPORTATION

The Gogebic County Airport is located just north of Ironwood in Ironwood Township. The joint facility is operated by an Airport Board with six members from Gogebic County, Michigan and three members from Iron County, Wisconsin. The airport serves primarily the tourism industry and local travel, however, year round operation has attracted businesses and provides connections to larger hubs throughout the Midwest. The airport has constructed a new 1.3 million dollar Airline Terminal, which is the first in the country to utilize geothermal heating.



NON-MOTORIZED TRANSPORTATION

Although vehicles are the primary transportation option in the Township, walking and biking are becoming increasingly popular. The primary non-motorized transportation modes are bicycling and walking. Quality-of-life and the economy have been a recurring theme in the public input for this plan, and walking and bicycling are tightly linked to quality-of-life and economic development strategies. In general, communities that are walkable and bikeable tend to encourage active healthy lifestyles, a livelier social environment, and more vibrant downtowns. Non-motorized transportation is also linked to reduced greenhouse gas emissions, lower levels of pollution, less traffic congestion, and a healthier environment. Walkable communities are valued by those who either can't or don't wish to depend on automobile transportation. These communities support greater levels of independence in mobility options for senior citizens, youth, and lower income people. Because of the positive effects that walking and bicycling have on recreation, fitness, transportation, and the environment, these transportation modes are valuable community assets. The differences in the needs and desires of pedestrians and bicyclists require a variety of facility types to accommodate them safely and enjoyably.



Before planning for bicyclists and pedestrians, it is important to understand who they are. A pedestrian, according to the American Association of State Highway and Transportation Officials (AASHTO), is defined as “a person afoot or in a wheelchair”. Universal design and ADA standards ensure that pedestrian facilities are designed to accommodate the needs of handicapped or disabled pedestrians. A bicycle is defined in *Section 257.4 of the Michigan State Vehicle Code, Act 300 of 1949*, as “a device propelled by human power upon which a person may ride, having either two or three wheels in a tandem or tricycle arrangement, all of which are over 14 inches in diameter.” Michigan State statute allows bicycles on all Michigan highways and roads except limited access freeways, or unless otherwise posted.

There are many different types of pedestrians and bicyclists. Pedestrians are the easiest group to accommodate; although there are many different ages and abilities of pedestrians. Most pedestrians can be accommodated sufficiently by providing sidewalks or paths along most roadways. However, they travel at a much slower speeds than a bicycle, therefore pedestrian accommodations should be provided at closer intervals (ideally one-quarter mile spacing).

How and where people bicycle depends on their ability. Bicyclists can be classified into three broad types; however, it is important to recognize that some casual or novice riders will eventually become experienced cyclists if an encouraging bicycle system is developed. The three broad categories of bicyclists are described below:

- **Advanced or experienced adults** who are capable of operating under most traffic conditions and can operate safely on most roadways.
- **Casual or novice adults and teenagers** who are less confident in their ability to operate in traffic on collector and arterial streets without provisions for bicyclists.
- **Children** who, because they are not mature mentally or physically, are not capable of bicycling safely without adult supervision.

- A subgroup of the child bicyclists are preteen riders whose bicycle use is initially monitored by adults, but who are eventually allowed to ride unsupervised on the road system. The majority of their riding will occur on local residential streets with low vehicle speeds and volumes, but they do require access to key destinations such as schools, recreation facilities, and neighborhood shopping areas. Most preteens (if they have been given proper bicycle education) will behave more like casual adult cyclists and thus are considered a subgroup.
- Another subgroup of bicyclists is teenagers who have taken driver's education. For many, driver's education is where they are first formally introduced to the concepts of vehicular traffic. This information is critical to safe bicycle operation and should be provided at a much earlier age.

Complete Streets

Ironwood Township embraces *Complete Streets* principles and will encourage the County Road Commission to apply these principles in all Township road projects as appropriate. This will support the goal for roadways to serve many functions, including linking various parts of the community, providing surface transportation accommodating all modes of transportation, providing public access to destinations, incorporating space for underground utilities and other public infrastructure, and helping to define and create a sense of place.

Quality-of-life is very important to the residents of the Township. Designing and building *Complete Streets* fosters livable communities and provides many benefits to the community such as:

- Encouraging healthy and active lifestyles through functional and attractive sidewalks or multi-use paths and well-defined bicycle routes consistent with the context of the community
- Allowing everyone, especially children, people with disabilities, and the elderly to safely and independently reach destinations and travel around the community
- Reducing pedestrian risk by as much as 28 percent by implementing *Complete Streets* design elements such as raised medians, sidewalks, and other traffic-calming measures (according to the National Complete Streets Coalition)
- Promoting a cleaner environment. The *Complete Streets* approach encourages people to walk or bicycle to their destinations around the community, which may help reduce vehicle trips. Many *Complete Streets* designs also include increased green space along the roadway.

To accommodate diverse transportation modes, the Township will collaborate with MDOT in supporting increased opportunities for multi-modal transportation systems including carpool lots, bicycle and pedestrian facilities, heritage routes, long-distance bicycle trails, and snowmobile trails. The Township should consider creating a comprehensive bicycle/pedestrian plan, preferably in collaboration with regional partners, to prioritize needs and recommend improvements, and to move toward the achievement of a regional network. The completion of this kind of plan can make more funding sources available for these types of projects.

5.3 RECREATIONAL FACILITIES

Ironwood Township has an abundant amount of year-round outdoor recreational opportunities. A large portion of the Township is either Ottawa National Forest, Gogebic County Forest, or Commercial Forest Act land. Much of this land offers extensive hiking, fishing and camping opportunities.

Ironwood Township is located in what is known as "Big Snow Country", with an annual average of about 180 inches of snow from 1971 to 2000 according to the National Weather Service Office in Marquette, Michigan. Snowmobiling, downhill skiing, cross country skiing and snowshoeing are popular winter recreation activities.

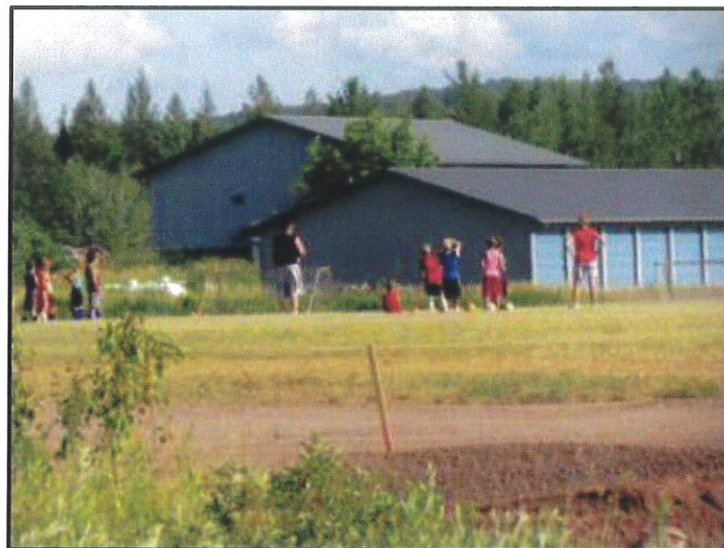
TOWNSHIP OWNED FACILITIES

The Charter Township of Ironwood has completed a Recreation Plan. A detailed description of the Township Recreation facilities is included in the Recreation Plan. These facilities include:

- Gymnasium connected to Township offices and Fire Hall
- Sunset Road Park
- Airport Recreation Park
- Lost Lake Park

COUNTY-WIDE RECREATION

Recreational opportunities promote a healthier community both physically and mentally for the citizens but also a healthier environment. Gogebic County offers a wide range of year-round recreational opportunities as well as many local, county, and state parks. Opportunities include snowmobiling, boating, fishing, hiking, camping, kayaking/canoeing, mountain biking, cross country skiing, and downhill skiing. These opportunities are described in detail in the following sections.



Snowmobiling

The Superior-West Michigan region, including Gogebic, Ontonagon, Houghton, Keweenaw, Baraga, and Iron Counties, attracts over 2 million visitor-days of travel per year.⁴ Overall, the area has over 2,000 miles of snowmobile trails that can be accessed from almost anywhere and are open December 1 through March 31 depending on snow conditions.

The Gogebic Range Trail Authority (GRTA), based in the City of Bessemer, is a nonprofit organization dedicated to the maintenance and improvement of 112 miles of snowmobile trails in and around Bessemer, Ironwood, and Wakefield. The Authority receives partial funding from the permit funds which are distributed by the Michigan DNR. The Western Upper Peninsula offers an impressive snowmobile trail system. Many old rail corridors have been converted for this purpose.

Boating/Fishing

Lake Gogebic, the largest inland lake in the Upper Peninsula, is divided into a northern half, in Ontonagon County (Eastern Time) and a southern half in Gogebic County (Central Time). The lake is home to Lake Gogebic State Park, Pilot Rock Gogebic County Park, Alligator Eye Overlook. The State and County Parks offer visitors campgrounds, boat launches, and picnic areas. The lake also provides many fishing and waterskiing opportunities.

Cisco Chain of Lakes is an extensive waterway with 271 miles of shoreline and many fishing and boating opportunities.

There are also over 500 named lakes and 2,000 miles of river and stream that provide endless fishing. Species range from Brook Trout, Brown Trout, Rainbow Trout, Steelhead, Lake Trout, Salmon, Largemouth and Smallmouth Bass, and many others. The variety of species makes fish a viable tourist attraction for the County. Access to the water also varies and can range from a paved boat landing to an undeveloped trail.

Hiking/Camping/Canoeing

The County offers many miles of hiking trails. Highlights include Black River National Scenic Byway, the North Country Trail, and Porcupine Mountain Wilderness State Park. North Country Trail is a 4,600 mile national scenic trail. It is the largest in the United States. It traverses the Township with plans to link with Wisconsin.

Black River National Scenic Byway is a section of County Highway 513 that contains three main recreation areas. The harbor consists of picnic areas, swings, pavilion with a fireplace, and a suspension bridge leading over the river and to a beach. The second area is a campground and the third is five waterfalls. Potawatomi and Gorge Falls are accessible for wheelchairs, elderly, and small children through a blacktop path. The other waterfalls have a parking lot and hiking trail with observation decks. The North Country Trail runs through this area and continues 118 miles across the Ottawa National Forest.

The Porcupine Mountain Wilderness State Park is located mostly in Ontonagon County; however the far east side contains the Presque Isle Scenic Area, one of only two main entrance points in the park. Presque Isle Scenic Area contains waterfalls, campground, and picnic area and provides access to over 90 miles of hiking trails. Other highlights of the Porcupine Mountain Wilderness State Park include two campgrounds, Lake of the Clouds, Summit Peak Lookout, Mirror Lake, Nonesuch Mine, and LaFayette Mine.

⁴ MDOT, 13 Western Upper Peninsula Michigan Economic Region Corridor Summary.
http://www.michigan.gov/documents/mdot/MDOT_Corridors_Borders_econ_regions_13_190312_7.pdf

One of the prime canoeing locations in the county is the Sylvania Wilderness Area and the Sylvania Recreation Area. The Sylvania Wilderness Area is a 19,000 acre wilderness reserve containing virgin forests and pristine lakes. Camping is facilitated in the 48-unit campground in the Sylvania Recreation Area or at one of the many water accessible wilderness campsites.

The County is trying to implement a trail network to include Heritage highlights, but there is currently uncertainty regarding issues of non-motorized vs. motorized investment. The Mi-Trale organization (Michigan Trails and Recreation Alliance of Land and the Environment) is an alliance of multiple trail and outdoor recreation enthusiasts formed to bring different user groups together to build networks. They have worked on ORV trails in Watersmeet, the Ottawa National Forest, and other areas, have utilized volunteers to improve trails, and have been instrumental in organizing events. Many other groups are also committed to trail development in the County.

Mountain Biking

Gogebic County has many miles of mountain bike trails ranging from beginner to expert.

The Powers Trail System has approximately 20 miles of marked trails plus many more miles of unmarked trails, and is quickly becoming a favorite of mountain bikers. It passes near the Bald Mountain overlook to Lake Superior, and Little Girls Point County Park. Mountain Bikers should be aware that the Powers Trail System is a multi-use trail system open to bikers, hikers and ATV use.



During the summer months, the Wolverine Nordic Trails offer several mountain biking options ranging from easy to difficult. Access points are located in the back parking lot of the Grand View Hospital, at Big Powderhorn Mountain Ski Area, and on Snow Summit Road (off Powderhorn Road).

Cross Country Skiing

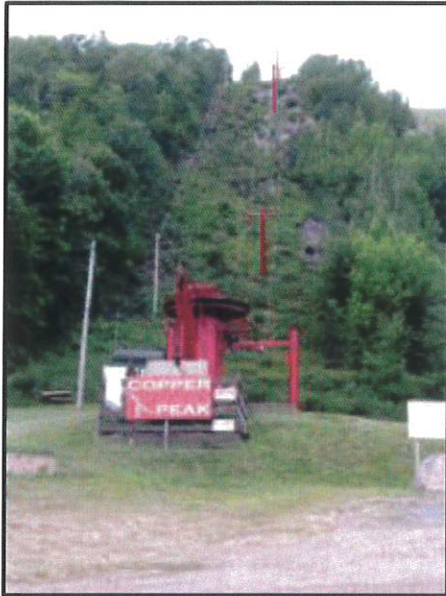
The Wolverine Nordic Trail system, located near Big Powderhorn Mountain Ski Area, offer 24 Kilometers of groomed trails for both diagonal classic skiing and skate skiing. The trails range from easy to difficult. Facilities at the main trail head include parking lot, warming chalet (open 8:00 am – 8:00 pm), and toilets. The trails are open to the public and free, however, donations are requested.

ABR trails system, a full service cross country ski touring center located on over 1,000 scenic acres along the Montreal River. ABR is often an early season destination for avid cross country skiers. The trails are groomed for diagonal classic skiing and skate skiing. Facilities include a heated warming cabin with concessions, full service ski shop, change rooms, indoor restrooms, sauna, and a large heated wax area. Instructors and lodging are available.

The Porcupine Mountain Wilderness State Park, as well as, the Ottawa National Forest provides endless off-trail cross country skiing options.

Downhill Skiing

Big Powderhorn Mountain Ski Area, located in Ironwood Township, Indianhead Mountain Resort, and Black Jack Resort are all located in Gogebic County. Big Powder Mountain Ski Area offers 28 runs on 252 acres, nine chairlifts, and three Terrain Parks. Indianhead Mountain Resort offers 638 vertical feet, 29 runs on 220 acres and nine chairlifts. The Black Jack Ski Resort offers 22 runs on 126 skiable acres, 6 chair lifts and 3 terrain parks. The resort sees an average of 210 inches of snowfall per year. The Resort is under new management and is anticipating adding to its list of amenities in the near future.



5.4 PUBLIC WATER AND SANITARY SEWER SERVICE

Much of the Township is on private wells and septic systems. However, a small portion of the Township adjacent to the City of Ironwood is connected to the Township new water and upgraded sewer system. The Township purchases water from the Gogebic Range Water Authority, however the Township is responsible for maintaining all waterlines throughout the Township. This same portion of the Township is also receives sanitary sewer service. The sanitary lines are owned and maintained by the Township with the treatment plant being owned and operated by the Gogebic Iron Waste Water Authority.

5.5 STORMWATER MANAGEMENT SYSTEMS

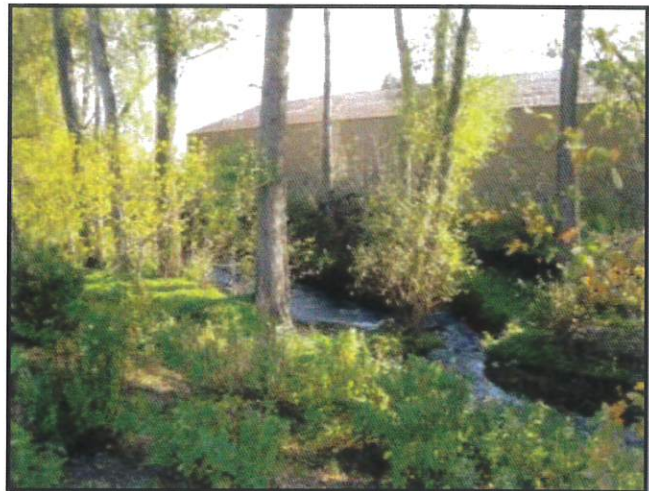
The State Highways System and the Gogebic County Road Commission roadways are primarily developed with a roadside ditch drainage system. The roadside ditch system is not designed to carry large volumes of flow, but to balance drainage flows to surrounding property and drainage courses with equalization culverts. Soil Erosion Permits are required from the Gogebic County Soil Erosion and Sedimentation Control, 500 N Moore Street, Bessemer Michigan 49911. The State of Michigan has

established Best Management Practices for Soil Erosion to assist in prevention of soil erosion and water quality degradation.

The Township is currently primarily focused on maintaining existing infrastructure systems. However, with future development the Township should implement stormwater management best practices to protect valuable water resources. This will include controlling land uses along important water courses and bodies to prevent contamination. Low impact development principles will protect both surface and groundwaters. Implementation practices will take into account the northern climate in controlling runoff from impervious surfaces. On-site natural landscaping systems will be utilized whenever possible to filter and control runoff from rooftops, streetscapes, parking lots, sidewalks, roadways, and medians. Pretreatment may be necessary with higher risk land uses, and special care must be taken in the wellhead protection zones.



Stormwater management techniques are supported by a practice of protecting and restoring natural areas, and designing development that minimizes imperviousness and maximizes permeability. The Township will seek to preserve open space, daylight creeks, restore wetlands, protect and plant trees, cluster development, use pervious paving materials, minimize street widths, reduce the area of parking lots, design recreation areas to hold runoff, and direct runoff from pavement and buildings to vegetation-lined channels. The use of above-ground or shallow infiltration systems, such as vegetated swales, rain gardens, filter strips, bio-retention areas, oil/water separators, and constructed wetlands will be encouraged. Riparian buffers will be utilized to protect water resources from nonpoint source pollution and provide bank stabilization and aquatic and wildlife habitat, especially along the Black River.



Good stormwater management techniques will be incorporated into the zoning ordinance, including adjustments to parking standards, landscaping standards, and development standards.

5.6 SOLID WASTE MANAGEMENT

The Gogebic Range Solid Waste Authority currently provides solid waste services to Ironwood Township. The Western Upper Peninsula Recycling located on Chippewa Drive in Wakefield Township opened in the summer of 2009. The recycling center is open Monday through Saturday and accepts any kind of refrigeration unit that has been drained and tagged to indicate that the Freon has been removed, many kinds of metals and cars, including car batteries and radiators. They are involved in adjacent township

spring clean-up efforts as well as sponsoring Wakefield Township spring clean up. They also pick up old appliances.

5.7 PUBLIC SAFETY

POLICE PROTECTION

Service is provided to all areas of the Township by the Gogebic County Sheriff's Department and the Michigan State Police. No additional staff or capital expenditures are anticipated at this time.

FIRE PROTECTION

Fire protection is provided by the Ironwood Township Volunteer Fire Department. The Fire Department is funded through township property taxes.

5.8 HEALTH CARE

Quality medical services are not only crucial to the health and well-being of residents, but are a valuable public amenity in attracting residents to an area. Aspirus-Grand View health system borders the Township and is the medical provider serving Ironwood Township and the surrounding area. Aspirus-Grand View includes two clinics (Ironwood and Hurley), hospital, surgical center, and eye care. The hospital departments/services include emergency services, cardiology, community outreach, home health care, inpatient care, laboratory, neurological services, oncology/cancer care, pharmacy, physical and occupational therapy, primary care, radiology, respiratory services, sleep lab, social services, surgical services, telemedicine, walk-in clinic, and women's health.

5.9 COMMUNICATION INFRASTRUCTURE

The local phone company is Ameritech, with long distance companies including AT&T, MCI, Sprint, and others. Cable, DSL, and high-speed dial-up and broadband internet is available in various locations. Area newspapers include the Ironwood Daily Globe and the Wakefield News/Bessemer Pick and Axe. There are two radio stations in Ironwood, WJMS/WIMI and WUPM/WHRY.

NATURE LIVES HERE

CHARTER TOWNSHIP OF IRONWOOD
MASTER PLAN

CHAPTER 6
PUBLIC INPUT

6.1 INTRODUCTION

The residents of Ironwood Township played an important role in the preparation of this Master Plan. During the planning process, many opportunities were offered for the public to participate. A public workshop and open house was held from 3:00 pm to 5:00 pm and 6:00 to 8:00 pm on October 12, 2011. A statically valid mail-in survey was prepared by Leisure Vision/ETC Institute and sent out to 1,500 households. Various meetings were also held with the Planning Commission throughout the process.

6.2 PLANNING WORKSHOP/OPEN HOUSE

Residents from the Township and the surrounding area, as well as, business owners were invited to imagine the future of Ironwood Township and discuss any issues or opportunities the Township is facing. The Planning Commission felt that, these meetings provide a great opportunity for residents and business persons to learn about issues facing the Township.

The open house included map displays and informational displays for participants to comment on. The U.P. Engineers & Architects project team, Township staff and members of the Planning Commission were on hand to answer questions and listen to comments. The following is a list of comments compiled from comment forms, notes on the maps, and discussion.

- The plan is looking good. No negative comments.
- Should let people that live and have invested in the Township be a part of the decision making process and not outside developers who will exploit our resources for their own profit.
- Ordinance 50 must be updated properly so we don't continue spending tax payer's \$ on lawsuits. An independent legal firm should type it so no errors in language are made.
- Board training should be mandatory so board members know what they're doing.
- I am a firm believer in the development of parks, however, the current parks need to be maintained. Maintenance is a very important piece of keeping our community attractive.
- Zoning needs to be enforced. We have major commercial businesses in areas not zoned commercial. They are destroying the local roads, not designed to handle heavy trucks. If they are allowed to continue to operate and grow, the Township needs to be committed to maintaining the roads, and/or upgrade them to handle commercial traffic levels.
- I would like to see the homeowners more protected. My story-we bought a house on North Star Road in Oct. '09. I am not living in the house yet, because I am battling a gravel pit that would be 162 feet from my drive way. If we would have known about this, we never would have bought a house in the Township.

6.3 SURVEY

In order to gain public input on the Master Plan project, the Township developed a survey and invited residents to participate. The survey was available for approximately 2 months and could be completed either online or by paper copy at the Township Hall.

The first section of the survey was questions on demographics. These included questions related to how long the resident has lived in the community, how many people were in the household, the age of the respondent, if the respondent rented or owned their home, and which part of the Township the respondent lives. These questions were compared to the census demographic data and used to determine the sample of the population that was responding. The rest of the survey was designed to identify issues and opportunities the Township is facing as well as, gather ideas on how the Township could improve. The tabulated survey results and a copy of the survey is included in Appendix A.

6.4 COMMUNITY VISION STATEMENT

Vision statements are a short summary of how the community should look and function in the future. The following statement was agreed upon as Ironwood Township's Vision for Success.

We envision a community that achieves a balance between interests to promote economic growth and implement responsible stewardship of water and land resources, while maintaining a low tax rate for the residents. The Township will promote optimal efficiency in using land resources to achieve sustainable education, housing, and employment opportunities; that assures public health and safety; where all residents are invited to participate in decisions affecting growth, regulation, and enforcement; and where people collectively work together to accomplish community goals and preserve remnants of history for the benefit of future generations.

CHAPTER 7

GOALS AND OBJECTIVES

7.1 INTRODUCTION

This portion of the Ironwood Township Plan is intended to outline a course for action in achieving Township goals. Together, the community goals and objectives are like a community's "To Do" list that lets prospective investors and residents know what is wanted, needed, and supported. Goal statements reflect the needs, values, and desires of the community, and cover a wide range of topics. They are like answering the question, "What do you want out of life?" They represent a desired, generalized future condition, or an end to which efforts are directed.

Objectives are statements of a position or course of action which provide a means of obtaining a stated goal. Objectives are more specific and measurable tasks that may be long-term, mid-term, or short term but need to be done to accomplish goals.

7.2 GOALS AND OBJECTIVES

GOAL #1: SMART GROWTH/LAND USE

Ensure that, where possible, new development follows the Smart Growth principles presented in this plan, such as prioritizing compact development and channeling new development to make the best use of existing infrastructure. This will enhance efficiency in public service provision and infrastructure maintenance, and help preserve natural resource lands.

- **Objective 1.1**
Modify zoning standards and work with developers to help create attractive mixed-use environments where people can more easily work, shop, and enjoy recreation close to where they live. This will reduce vehicular trips, increase interaction, and encourage the use of non-motorized transportation (and healthier lifestyles).
- **Objective 1.2**
Create walkable neighborhoods to enhance mobility, strengthen the economy, facilitate transportation alternatives, and improve social and recreational interaction.
- **Objective 1.3**
Prioritize the rehabilitation or reuse of vacant and underutilized properties (including brownfields) or the conversion of single-uses into mixed-use developments as a preferred strategy over new development.
- **Objective 1.4**
Develop zoning regulations to discourage development in unsuitable areas, such as those containing steep slopes, flood plains, caving areas, high water tables, wetlands or shallow soils or areas adjacent to airports or other activities detrimental to human health, safety and welfare.
- **Objective 1.5**
Locate new development in or near existing developed areas to promote an efficient and compact pattern of development, reduce the negative effects of sprawl, and reduce infrastructure and service costs.

- **Objective 1.6**
Encourage and support compact development and compact building design for efficient public service provision, efficient use of land resources, facilitation of a walkable/bikeable community, improved feasibility for public transit, and a more vibrant business environment.
- **Objective 1.7**
Strengthen regulations, enforcement tools, and administrative structure to support environmental protection standards that preserve sensitive environmental areas that are incompatible with development.
- **Objective 1.8**
Amend the zoning ordinance to include resource protection provisions or overlay zones to comprehensively address sensitive environmental areas that cross parcel boundaries such as bluffs, erosion zones, floodplains, caving areas, shorelines, wetlands, swamps, marshes, wellhead protection areas, and aquifer recharge sites.
- **Objective 1.9**
Enact regulations to preserve and enhance riparian buffers along the rivers and other water bodies in the Township to protect water quality and aquatic and wildlife habitat. This includes adopting land use controls (such as zoning setback distances from watercourses) that are established and uniformly applied.
- **Objective 1.10**
Incorporate good stormwater management techniques into the zoning ordinance to protect water quality, including adjustments to parking standards, landscaping standards, and development standards. Utilize natural filtration and detention systems whenever possible.
- **Objective 1.11**
Preserve large tracts of contiguous forest lands for conservation, recreation, wildlife habitat, and timber management activities.
- **Objective 1.12**
Increase public awareness of the Township planning and zoning function.
- **Objective 1.13**
Communicate with neighboring township and city governments on land use issues and distribute this Master Plan to neighboring jurisdictions.
- **Objective 1.14**
Continue long range planning to manage growth and protect the natural environment.
- **Objective 1.15**
Maintain and update the Zoning Ordinance provisions consistent with this Master Plan.

- **Objective 1.16**
Support uniform zoning enforcement.
- **Objective 1.17**
Make zoning decisions consistent with the Future Land Use Recommendations/Map of this Master Plan.
- **Objective 1.18**
Preserve scenic views and open space, especially along major roadways and shorelines. Discourage outdoor advertising signs except in commercial and industrial areas.

GOAL #2: TRANSPORTATION ENHANCEMENT

A multi-modal, balanced transportation system, accommodating travel patterns of all users safely and efficiently throughout the Township, at minimal environmental and fiscal cost.

- **Objective 2.1**
Ironwood Township does participate in the process of PASER ratings. The Township will implement an asset management program to evaluate road conditions and organize data. All data will consider road use density.
- **Objective 2.2**
Ironwood Township will pursue aesthetic enhancement opportunities along the U.S. 2 corridor in partnership with MDOT. The Township will also consider opportunities to participate in a regional or county-wide wayfinding sign project. The Township will also pursue local ways to enhance the aesthetics of public spaces along important gateway roadways to create an impression of community pride.
- **Objective 2.3**
The Township will support the continuation of rail service and public transit to the area, and seek to expand service when possible.
- **Objective 2.5**
The Township will collaborate with MDOT in supporting increased opportunities for multi-modal transportation systems including carpool lots, bicycle and pedestrian facilities, heritage routes, long-distance bicycle trails, and snowmobile trails.
- **Objective 2.6**
The Township will implement alternate modes of transportation planning into road improvement projects. A comprehensive bicycle/ pedestrian plan is recommended (preferably in collaboration with the County or Planning Region) to prioritize needs and recommend improvements and to move toward the achievement of a regional network. Having a comprehensive bicycle and pedestrian plan can make more funding sources available for these types of projects.

- **Objective 2.7**
Ironwood Township will collaborate on regional trail projects and be prepared to provide valuable links in the overall trail system. Multi-use paths will complement and help complete priority pedestrian networks within the Township.
- **Objective 2.8**
Adopt a “Fix it First” philosophy for the road system. Continue to support/work with the Gogebic County Road Commission to maintain and upgrade the Township road network.
- **Objective 2.9**
Implement Complete Streets principles by collaborating with MDOT, the Gogebic County Road Commission, and MDNR in supporting increased opportunities for multi-modal transportation systems including carpool lots, bicycle and pedestrian facilities, heritage routes, long-distance bicycle trails, and snowmobile trails.
- **Objective 2.10**
Seek supplemental funding for planned improvements to major and minor roads by the Gogebic County Road Commission and MDOT. Assure that design and schedule of projects are compatible with the Master Plan.

GOAL #3: PUBLIC SERVICES, FACILITIES AND INFRASTRUCTURE

Provide appropriate public facilities and services to support the residential, commercial and recreational activities of residents, business owners and visitors.

- **Objective 3.1**
When siting new public facilities ensure the location is easily accessible for motorists, bicyclists, public transportation users and pedestrians.
- **Objective 3.2**
Encourage school boards to expand and/or locate new facilities according to the Township’s land use policies and zoning regulations.
- **Objective 3.3**
Encourage joint use of school facilities by the school district, City, Township and County.
- **Objective 3.4**
Continue support/operation/enhancement of the Ironwood Township Fire Department.
- **Objective 3.5**
Coordinate Township services with providers of semi-public services to compliment rather than duplicate their efforts.

- **Objective 3.6**
Encourage all governmental units to cooperate on facilities and services whenever practical across Township/City/County lines.
- **Objective 3.7**
Insure adequate parking facilities for commercial and public attraction areas for both motorists and bicyclists through site plan review and zoning regulations.
- **Objective 3.8**
Require that new road and utility improvements be made to coincide with new development.
- **Objective 3.9**
Support and encourage private civic groups which provide educational and social programs of importance to local residents.
- **Objective 3.10**
Continue to work with the Gogebic-Iron Wastewater Authority to maintain and expand the current sanitary service area.
- **Objective 3.11**
Continue to partner with the Gogebic Range Water Authority to provide residents and businesses a high quality water system.
- **Objective 3.12**
Support the development and maintenance of water and sewer service boundaries as identified by the Township's Public Works Department.

GOAL #4: HOUSING

Maintain and preserve the quality of existing residential areas and encourage the provision of an adequate supply of housing for all residents.

- **Objective 4.1**
Look for opportunities to develop specialty housing for seniors with a diverse level of support care close to local trail systems and medical services.
- **Objective 4.2**
Maintain all housing in the Township in a decent, safe and sanitary condition through utilization of building/maintenance codes.
- **Objective 4.3**
Utilize housing improvement and rehabilitation programs to eliminate unsound housing and to improve and conserve sound but aging housing.

- **Objective 4.4**
Revise the Zoning Ordinance to match development densities to available roads and services and to the environmental characteristics of the site.
- **Objective 4.5**
Encourage the development of “open space” or clustered residential developments through zoning ordinance which allows for a concentration of smaller lots, while preserving common areas for use by all residents in the development.
- **Objective 4.6**
Address the special need of the disabled or elderly population during community development.
- **Objective 4.7**
Support uniform enforcement of the Property Maintenance Code of the Charter Township of Ironwood.

GOAL #5: RECREATION

Preserve and enhance public access and enjoyment of unique natural amenities and create a community that supports year-round active living and recreation environments.

- **Objective 5.1**
Continue to update the Township’s Recreation Plan every 5-years and submit to the Michigan Department of Natural Resources for approval. Encourage citizen volunteer services and support.
- **Objective 5.2**
Identify and apply for appropriate grant funding for recreation projects as identified in the 5-year Recreation Plan.
- **Objective 5.3**
Review all existing and proposed recreational sites and facilities for barrier-free accessibility which conforms to the Americans with Disabilities Act.
- **Objective 5.4**
Implement the goals and action plan of the 5-year Recreation Plan.
- **Objective 5.5**
Develop active and passive recreational opportunities for all age groups and special populations.
- **Objective 5.6**
Promote recreation and other uses that preserve natural features in forested land.

- **Objective 5.7**
Support the development/expansion of multi-use trails by seeking grant funding and working with MDOT, MDNR, Ni-Miikanaake Chapter of the North Country Trail Association, and the Gogebic County Road Commission.
- **Objective 5.8**
Establish a working relationship with regional agencies in the provision of recreational opportunities. Some of these entities include, City of Ironwood, Gogebic County, Ni-Miikanaake Chapter of the North Country Trail Association, United State Forest Service and Michigan Department of Natural Resources.

GOAL #6: ECONOMIC DEVELOPMENT

Improve the economic conditions in Ironwood Township by promoting the community as a great place to work, live, visit and recreate.

- **Objective 6.1**
Retain and encourage expansion of existing businesses and industries and attract new economic activities, including small-scale light industries to provide desired levels of employment for the Township.
- **Objective 6.2**
Encourage infrastructures and service networks to support businesses, employees and their families.
- **Objective 6.3**
Seek grants through federal, state and other funding sources for infrastructure improvements and economic development projects.
- **Objective 6.4**
Continue to promote the Township's environmental resources, natural features, cultural and historic sites, events and festivals as a way to foster the tourism industry.
- **Objective 6.5**
Provide through zoning adequate and appropriate spaces for the establishment of commercial and industrial enterprises.
- **Objective 6.6**
Prevent or minimize the blighting influence of commercial or industrial activities on adjacent land uses.
- **Objective 6.7**
Encourage mixed-use developments in conjunction with public improvements.

- **Objective 6.8**
Update Zoning Ordinance to minimize conflicts between adjacent incompatible land uses.

GOAL #7: GOVERNMENT

Improve the responsiveness to citizens and staff needs and timeliness of local government decision-making, consistent with fiscal responsibility and transparency.

- **Objective 7.1**
Survey all Township facilities to determine present and future needs.
- **Objective 7.2**
Conduct required statutory meetings, committee meetings, departmental meetings, special meetings and public hearings in a professional manner.
- **Objective 7.3**
Increase citizen involvement in decision-making through participation and effective communication.
- **Objective 7.4**
Provide a Township newsletter and other forms of communication on a regular basis.
- **Objective 7.5**
Review the Community Master Plan on a 5-year cycle and update were appropriate.

7.3 FRAMEWORK PLAN

After reviewing the Goals and Objectives in the previous section, the Framework Plan was developed. This plan addresses six projects or recommendations for the Township to focus one in order to accomplish the goals of this Master Plan. These projects and recommendations are illustrated on Figure 7-1 on the following page and include:

1. Project 1 includes working with MDOT and the Gogebic County Road Commission to construct a non-motorized path in the Right-of-Way, from the intersection of Section 12 Road and US 2, north along Section 12 Road and then east on Sunset Road to the Wolverine Trailhead. This path would create a connection to the Trail head and provide a safe alternative for residents living in the area to get to Wal-Mart and other businesses.
2. Project 2 involves working with MDOT to construct pedestrian intersection improvements to the intersection of US 2 and Section 12 Road. This intersection is key to provide residents on the north side of US 2 non-motorized access to the businesses on the South side of the highway.
3. Project 3 recommends the Township work the Michigan Economic Development Corporation and other State agencies to upgrade the utilities to the property surrounding the Airport. If and when utilities are run to the site, the property could once again be marketed as an industrial site. However, until the utilities are upgraded, the property could still be marketed to companies' not needing 3-phase power.

4. Project 4 recommends the Township develop gateway signage at key entrances to the City. These entrances include US 2, Black River Road and Lake Road at the Wisconsin Border. The signs would have a consistent theme that the Township could use to develop other wayfinding signs throughout the Township; however, the signs would vary in size depending on the location.
5. Project 5 involves working with the Gogebic County Road Commission to develop a non-motorized path or other type of bicycle and pedestrian facility from the City limits north along Lake Road to Airport Road and then east on Airport Road to the Airport Park.
6. Project 6 includes work with the Gogebic County Road Commission and other partners to develop a non-motorized path from Airport Road, north along Black River Road to Black River Harbor. This path would provide visitors and residents a safe place to ride or walk to the waterfalls and other attractions along Black River Road. It would also provide a connection to the North Country Trail.

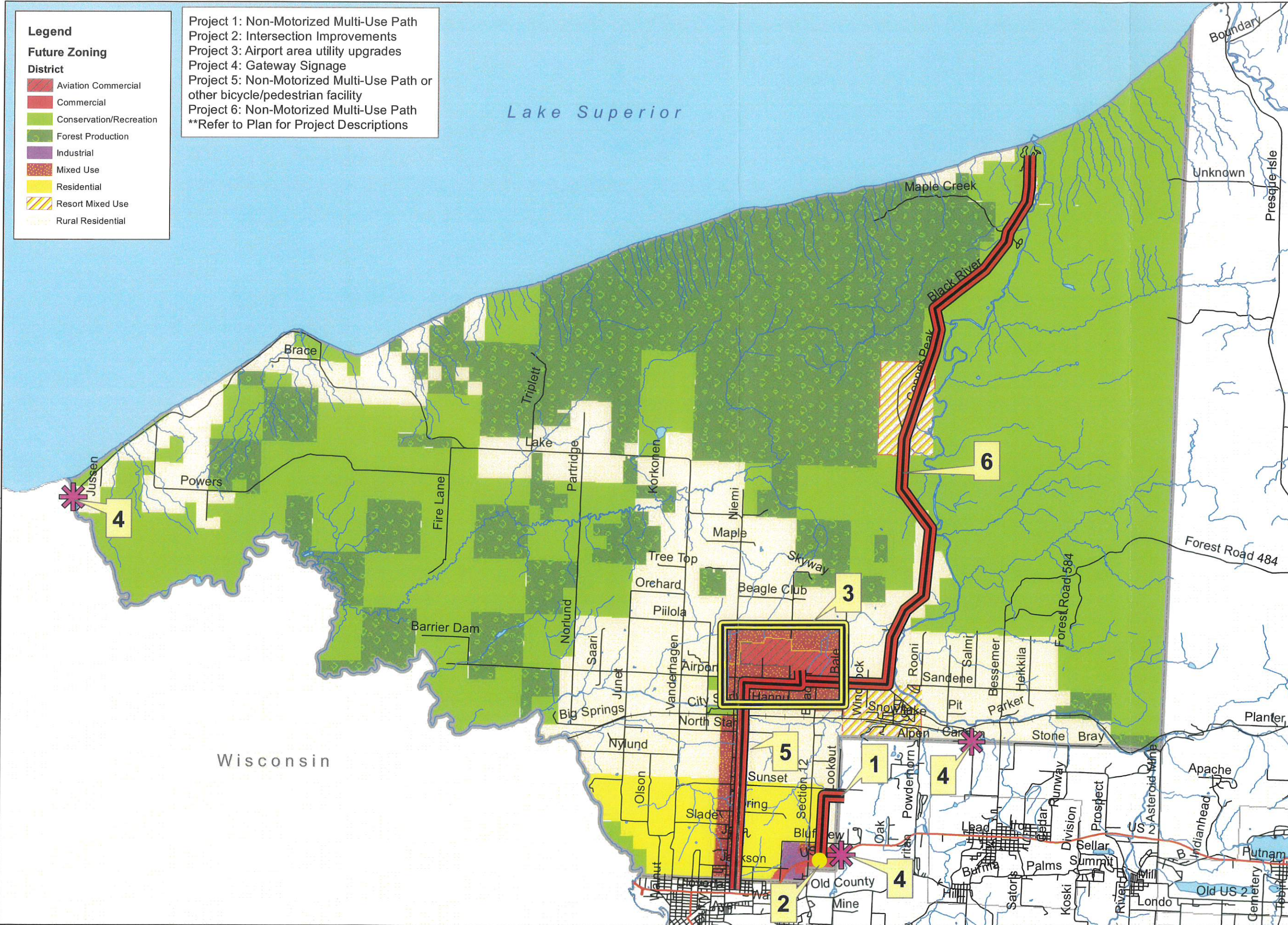
Legend

Future Zoning District

- Aviation Commercial
- Commercial
- Conservation/Recreation
- Forest Production
- Industrial
- Mixed Use
- Residential
- Resort Mixed Use
- Rural Residential

Project 1: Non-Motorized Multi-Use Path
 Project 2: Intersection Improvements
 Project 3: Airport area utility upgrades
 Project 4: Gateway Signage
 Project 5: Non-Motorized Multi-Use Path or other bicycle/pedestrian facility
 Project 6: Non-Motorized Multi-Use Path
 **Refer to Plan for Project Descriptions

**Figure 7-1:
 Framework
 Plan
 Ironwood
 Township,
 Michigan**



0 4,500 9,000 Feet



NATURE LIVES HERE

CHARTER TOWNSHIP OF IRONWOOD
MASTER PLAN

CHAPTER 8

FUTURE LAND USE AND ZONING PLAN

High density, urban living is encouraged and mixed with supportive neighborhood services. Non-residential uses may include auto-oriented uses such as gas stations, vehicle service and repair businesses and drive-through restaurants; large scale retail operations that require large outside storage or parking areas; public buildings; and hotels and motels.

Mixed-Use: The intent of the Mixed-Use land use is to promote the establishment of a mix of neighborhood-serving activities in a clustered activity center located in close proximity to or within neighborhoods. The category is located along Lake Road, Country Club Road and around the Airport. This land use integrates retail, office, institutional, and other moderate intensity non-residential uses within residential neighborhoods while preserving traditional neighborhood character. This integration of uses will promote shopping and service opportunities within the neighborhoods, and will accommodate non-motorized forms of transportation, including public transit. Development in this area will provide for commerce at a scale that is appropriate for nearby residential areas, while placing primary importance on a safe and pleasing pedestrian environment. Trees and vegetation should be preserved to improve the pedestrian landscape and provide buffers from activity.

Resort Mixed-Use: This mixed-use commercial and residential land use provides recreation or vacation convenience goods and services such as restaurants, lodging, small gift shops, outdoor equipment dealers, etc for families or tourists utilizing resort facilities in Gogebic County. The mix of uses will reflect resident and visitor needs. The Resort Mixed-Use area is located around Big Powderhorn Mountain Resort, around Copper Peak and Black River Harbor.

Transportation/Communication/Utilities: This area encompasses the Airport and includes buildings or structures for utility, communications, or transportation service, including but not limited to facilities created for the generation, transmission and/or distribution of electricity, gas, steam, communications, television, and water; the collection and treatment of sewage and solid waste; and the provision of roads, rails, air or mass transportation. Accessory uses may include offices, truck and large equipment parking, fueling and maintenance.

Residential: This land use category is bordered to north by Sunset Road and to the south by Margret Road is intended to preserve the existing character of the traditional residential neighborhoods and to guide redevelopment in a manner which is consistent and compatible with this form. Residential character is reflected around a framework of well-connected, grid street systems. This area is intended to create and preserve viable and walkable neighborhoods and provide for all season non-motorized connections. This land use is generally located where all of the facilities for urban living, including community sewer and water facilities, are available.

Uses include mostly single-family dwellings and two-family dwellings, but special uses may be allowed if they are designed to be compatible with the residential setting. Other compatible uses may include home occupations contained within the dwelling; bed and breakfast establishments; family child care; state-licensed residential facility; churches and associated structures; parks and playgrounds; schools and libraries; hospitals and clinics; community and publically owned buildings; and public utility buildings. Site plan review may be required for all uses other than single- and two-family dwellings.

Primary Rural Residential Density: Residential uses normally on septic and private well at a density of **one unit per 2 - 10 (or more) acres**, located on a primary County road. Allows a slightly higher residential density when formatted as a residential conservation or cluster development, provided that at least 50% of the space is usable, undeveloped, open space and that approved waste handling systems are engineered. This land use is designed to encourage rural development along existing county roads and to help preserve rural character.

Resource Production: Lands primarily used for conservation and preservation of natural resources for Forestry, Mining, and Agriculture, with balanced protection for sensitive environmental areas and habitats. Also for uses compatible with natural resources, such as low impact recreation, hunting camps, trails, and wildlife areas. Generally these lands are not improved with sewer services. The primary function of this land is for agriculture, forestry, mining, or related resource activity, with residential uses allowed at one unit per 20+ acres density.

Conservation/Recreation: Includes publically owned lands generally used for recreation, or un-subdivided lands that are vacant or focused on natural resource use. This land use is generally intended to serve as resource protection for timberlands, recreation lands, agriculture, and wetlands. This area encourages the retention of contiguous resource areas, greenbelts, wetlands, scenic areas, and wildlife habitat. Environmentally conscious regulations are intended to protect water quality and sensitive environmental resources by providing a buffer of low-intensity uses. Single family dwellings may be accommodated at a very low density while maintaining the ecological integrity of the natural resources. Typical uses include forest and wildlife management, riparian buffers, hunting camps, parks, and playgrounds. Other uses that may be allowed as special uses include recreational camps and clubs, golf courses, and resorts.

Industrial: This area includes industrial service and manufacturing firms which engage in intense scale or volume of activity and may store materials or vehicles outdoors. Few customers, especially the general public, come to the site. These areas are characterized by the presence of heavy machinery, building materials, and raw materials for processing and storage, and the utilization of chemicals and intense processes.

Legend

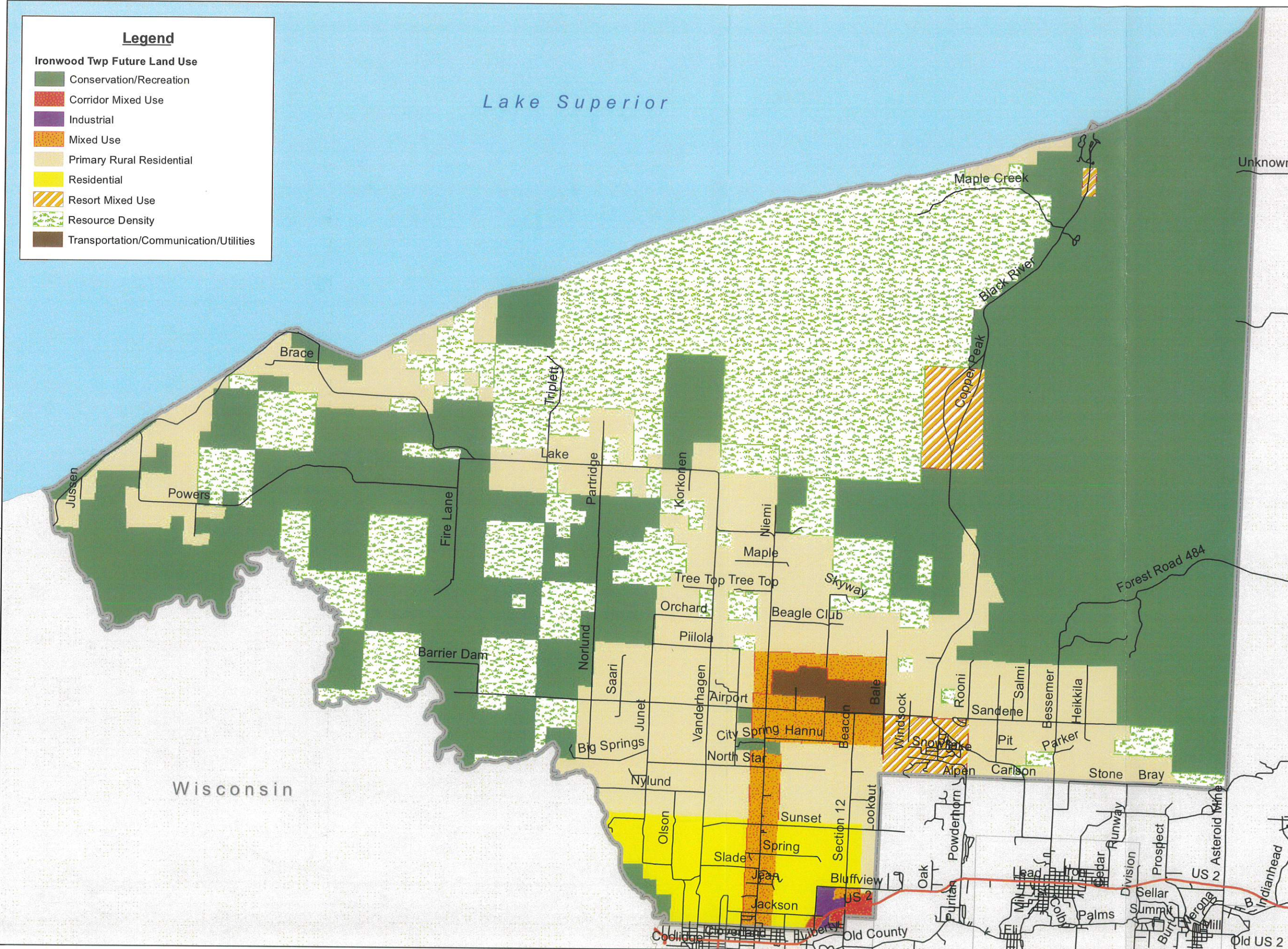
Ironwood Twp Future Land Use

- Conservation/Recreation
- Corridor Mixed Use
- Industrial
- Mixed Use
- Primary Rural Residential
- Residential
- Resort Mixed Use
- Resource Density
- Transportation/Communication/Utilities

Lake Superior

**Figure 8-1:
Future
Land Use**

Ironwood
Township,
Michigan



0 4,400 8,800 Feet



8.3 COMPARISON OF CURRENT AND FUTURE LAND USE

The Charter Township of Ironwood is not currently undergoing rapid change, so current and future land use categories are not extremely different. The main difference is that a mixed-use category is incorporated to ensure diverse residential opportunities to promote vibrant clusters and allow the continuation or development of neighborhood-serving non-residential uses. Mixed-use types are promoted in more parts of the Township including north of the airport on Lake Road. The primary rural residential (RR) was added to establish areas of the Township suitable for larger lot residential development. Most State owned land and natural areas are designated to remain natural and are categorized as conservation/recreation (CR).

8.4 ZONING DISTRICTS AND ZONING PLAN

This plan satisfies the requirement of P.A. 33 of 2008 for a local unit of government that has adopted a zoning ordinance to have a zoning plan within the master plan, including an explanation of how the land use categories on the future land use map relate to the districts on the zoning map.

The Charter Township of Ironwood is currently divided into eight zoning districts with special provisions for land fronting Lake Superior and property uses on lakes and streams. Although the Ordinance has been recently amended in 2011, the Township is considering updating their ordinance next year. These recommendations are discussed in each district section and general recommendations are discussed in the *Propose Schedule of Regulations* section below. The intent and purpose of each district along with proposed changes are discussed in this section. The permitted uses are discussed in each of the district standards and the conditional uses within each district are discussed in Article VIII of the Zoning Ordinance.

SINGLE FAMILY RESIDENTIAL DISTRICT

The purpose of the Single Family Residential District, R-1, is to provide areas in the Township dedicated primarily to residential uses in which each dwelling is located on an individual lot or premises adequate in size and shape to provide for safe water supply and sewage disposal facilities, to minimize hazards of spreading fires, and to require setback from the public thoroughfare to facilitate safe exit from and entrance to the premises. The requirements are intended to protect and stabilize the basic qualities of the District, and to provide suitable and safe conditions for residential living. This district is represented on the Future Land Use map as the Residential (R-1) category.

The permitted uses in the Single Family Residential District include:

- One family dwellings
- Schools, libraries and other municipal facilities
- Churches
- Daycare facilities (up to 6 children)
- Essential public utility services

The only change that is envisioned for this district is to add provisions for multiple family uses within the district at the time the Ordinance is updated.

RESIDENTIAL TRANSITION DISTRICT

The purpose of the Residential Transition District, TR-1, is to provide controls within the township for those areas that are becoming a mix of residential, commercial and services. This zone provides that individual lots or premises are adequate in size and shape to provide for safe water supply and sewage disposal facilities, to minimize hazards of spreading fires, and to require setback from the public

thoroughfare to facilitate safe exit from and entrance to the premises, and to protect the Single Family Residences from the problems associated with a mixed use zone. The requirements are intended to protect and stabilize the basic qualities of the District, and to provide suitable and safe conditions for all.

The permitted uses in the Residential Transition District include:

- One family dwellings
- Schools, libraries and other municipal facilities
- Churches
- Daycare facilities (up to 6 children)
- Essential public utility services
- Service Businesses
- Commercial Businesses

At the time of the Zoning Ordinance update, it is recommended this district be renamed to Mixed-Use District. This name change will better define the district and make it easier for administration of the Ordinance. It is also recommend the boundary be extended to surround the air port area. This district is similar to the Mixed-Use (M-1) land use category on the Future Land Use map.

MULTI-FAMILY RESIDENTIAL DISTRICT

The purpose of the regulations covering this District are to provide a stable and sound family residential environment with the highest type of neighborhood related urban utilities, facilities and services. The essential difference between this and other Residential Districts, is that a relatively high density of urban type residential developments will be permitted in a variety of multi-family dwelling structures on smaller area per dwelling unit ratios.

The permitted uses in the Multi-Family Residential District include:

- One family dwellings
- Duplex and multiple family dwellings
- Schools, libraries and other municipal facilities
- Churches
- Community colleges and Community Center Buildings
- Lodging and boarding facilities
- Condominiums
- Daycare facilities (up to 6 children)
- Essential public utility services

In order to correspond with the Future Land Use Map and the vision of the Township, it is recommended this district become a Resort Mixed-Use District to better define the intent of the district based on the permitted uses. Multiple Family uses will stay a permitted use but there will also be provisions in the Residential District for multiple family uses.

COMMERCIAL DISTRICT

This district is established for the purpose of accommodating retail and service establishments to be located along the major commercial corridor of the Township and further, to permit those uses which can be appropriately located in such a central area. This District provides major retail and service facilities to the people of the Township, and extending to the immediately surrounding regions.

The permitted uses in the Commercial District include:

- Retail establishments
- Personal and Business Services
- Hotels, motels and other lodging
- Passenger terminals
- Information Centers
- Offices, banks, public buildings and public utility installations
- Restaurants and drive-in businesses
- Business, trade or public schools
- Dancing and music studios
- Sales and showrooms
- Funeral homes and mortuaries
- Commercial recreational facilities
- Commercial or public parking lots.
- Automobile service and repair stations.
- Bars, taverns, nightclubs or inns.
- Household and family service businesses, including laundromats, dry cleaning establishments and similar establishments.
- Dwellings when occupied by the owner or operator of an adjoining commercial business.
- Manufacturing and processing establishments, selling at least fifty (50) percent of the entire output at retail on the premises.
- Building supply and equipment stores.
- Storage yards are permitted when they are used for storage of retail sale products. Yards are not permitted when they are used for storage of inventory for wholesale sales or construction industry bulk sales.

There are no changes recommended for the current Commercial District.

INDUSTRIAL DISTRICT

The purpose of the Industrial District is to provide an area of the Township to encourage development of manufacturing, processing, storage and office establishments. These uses typically have low volume customer traffic but higher volume truck and other delivery traffic.

The permitted uses in this district include:

- Any production, processing, cleaning, testing, repairing, storage and distribution of materials, goods, foodstuffs and products not involving a normal retail or service activity on the lot.
- Veterinary hospitals and kennels.
- Wholesale businesses or warehouses.
- Building supply and equipment stores and yards.
- Contractor's establishments not engaging in any retail activities on the lot.
- Accessory uses clearly related with the main use.

There are not any significant changes to the current Industrial District, however, it is recommended that the Industrial District and the current Manufacturing District be combined into one General Industrial District.

MANUFACTURING DISTRICT

This district has a similar purpose of the Industrial District, however, the focus is on uses that require outdoor storage and therefore larger lots. The permitted uses in this district include:

- Manufacturing
- Waste Storage Facilities
- Junk yards and salvage yards.
- Stone cutting and monuments.
- Lumber mills.
- The incineration, reduction or dumping of feces or garbage

As part of the update process for the Zoning Ordinance, it is recommended this district be combined with the Industrial District.

RECREATION, AGRICULTURE AND FORESTRY DISTRICT

The purpose of this current district is to promote the use, enjoyment and conservation of the natural and other resources of the Township. Uses of particular interest include to recreational, agricultural and forest industries. The permitted uses in this district include:

- All permitted uses under the Single Family Residential District.
- Plant nurseries and greenhouses.
- All farm buildings and structures customarily utilized in farming operations.
- Roadside stands for the sale of farm products provided that the location of the stand, parking, entry and exit from a public road be approved by the County Road Commission as safe and adequate.
- Parks and playgrounds, including customary buildings and structures.
- Professional offices.
- Hunting, fishing and trapping, including cabins thereof.
- Forest industries.
- Production of forest products.
- Harvesting of any native or wild crops permitted by law, such as marsh hay, berries and seeds.
- Hydroelectric plants, dam and flowage areas.
- Trailer coaches.
- Farms, including production of field, fruit, hay crops, livestock, pasture, wood lots and farm forestry.
- Seasonal recreation facilities.
- Non-Ferrous Metallic Mining authorized by the Michigan Department of Environmental Quality under Part 632 of the Natural Resources and Environmental Protection Act, Act 451 of the Public Acts of 1994, as amended.

The Recreational, Agriculture and Forestry District has seen the most change over the last few years. Although the intent of the District is to promote to use, enjoyments and conservation of natural resources; this district has seen a large amount single family residential and industrial, particularly extraction development pressure. Therefore, it is recommended that this district be split into four districts, a Conservation/Recreation (CR) District, a Rural Residential (RR) District, a Forest Production District (FP) and an Aviation Commercial District.

The proposed Conservation/Recreation District will be similar to the Conservation/Recreation Future Land Use category. The District will be designed to promote the use of wooded and rural areas of the Township in a way that will retain the basic beauty of the natural resource and provide enjoyment for both visitors and residents. Proposed uses may include fish hatcheries, commercial forest production, non-commercial forest production, saw mills, firewood sales, logging/contractor operations, emergency service centers, motorized trails, non-motorized trails, arboretums, boat landings, outdoor ice skating rinks, parks and playgrounds.

The proposed Rural Residential (RR) District will be similar to the Rural Residential (RR) Future Land Use category. Township serves will generally not be provided in this district and access to the sites will be from local roads. The proposed minimum lot size is two acres with smaller lots available if the development is a conservation subdivision. Smaller lots may also be permitted along the shore of Lake Superior. The larger minimum lot size will be required to minimize the effects on property owners from neighboring uses.

The proposed Forest Production District will be similar to the Resource Density (RD) Future Land Use. This area is located in the north central part of the Township, west of County Road 513. Proposed uses for this district include agricultural activities, extraction of earth products, hunting and fishing camps, forest products harvesting, wood processing facilities and outdoor recreational facilities. The proposed minimum lot size in this district is recommended to be twenty acres in order to accomplish the recommended uses.

The proposed Aviation Commercial District encompasses the area north of Airport Road, west of Bale Lane and east of Lake Road. A portion of this area immediately adjacent to Airport Drive is currently zoned commercial; while the rest of the area is zoned Recreation, Agriculture, Forestry. At the time the Zoning Ordinance is updated it is recommended this area be rezoned to the proposed Aviation Commercial District. Recommended uses in this district include airport terminals, commercial airline facilities, aircraft hangars, aviation offices, control towers, fuel storage and dispensing, rental car facilities, and hotels.

PROPOSED SCHEDULE OF REGULATIONS

At the time the zoning ordinance is updated, it is recommended to incorporate all necessary changes to bring the ordinance into compliance with P.A. 110 of 2006, the Michigan Zoning Enabling Act, as amended. It is also recommended the Township incorporate all applicable regulations of the Gogebic – Iron County Airport Zoning Ordinance. This will include but is not limited to, public hearing notice requirements, process for variance, appeals board structure and process, planning commission process, treatment of specific land uses, site plan standards, and the inclusion of more specific standards and findings of fact. Other changes to bring the ordinance into alignment with this Master Plan should include:

- *Screening/Buffering/Landscaping*
 - Require buffers for large or unornamented structures.
 - Reduce the impact of paved surfaces by requiring landscaped islands and buffer strips or berms or screens. Consider implementation through incentives and site plan review standards.
- *Parking*
 - Incorporate access management practices into district standards, capital improvement plans, and site plan review standards.

- *Sign Regulations*
 - Update sign regulations to ensure compatibility in size, placement, and materials to reflect community goals.
- *Use Regulations*
 - Address outdoor woodburning furnaces and air pollution.
 - Change the zoning regulations to allow mixed-use applications in neighborhood locations as a special land use with performance requirements and appropriate screening and buffers to ensure compatibility with the surrounding neighborhood.
 - Change local ordinances to allow community gardens, farmer's markets, food stands, small neighborhood stores, edible landscaping, and appropriate urban farming (in yard setbacks, vacant lots).
 - Revise ordinances to allow for and encourage the use of renewable energy sources such as wind and solar power. Examples include preserving solar easements and revising standards to consider building orientation and the accommodation of infrastructure.
- *Development Regulations*
 - Review the blight strategy and updated ordinances if necessary, such as an abandoned building or vacant structures, blight prevention, abandoned possessions, dangerous building, fire prevention, grass and noxious weeds, housing, inoperable vehicle, litter, nuisance, and property maintenance. Update enforcement procedures such as inspections, agreements, prosecution, misdemeanor, municipal civil infractions, blight violations, abatement of nuisance, and condemnation.
 - Plan for trail-connections and implement streetscaping best practices upon development.
 - Change site plan review and required landscaping standards to implement climate-sensitive site landscaping and green streetscapes over time with development or redevelopment. This includes required landscaping to buffer parking areas, blank walls, and service entries.
- *Environmental Regulations*
 - Protect the environment through vegetated buffer zones, mature tree preservation guidelines, and wetland protection provisions contained in Site Plan Review.
 - Enact policies to restrict and control development in areas where there are steep slopes, soil erosion possibilities, and wellhead protection areas.
 - Develop a wetlands protection program with a priority to preserve existing wetlands and integrate them on-site whenever possible, perform high quality mitigation when necessary, and pursue opportunities to restore or enhance wetlands wherever possible.
 - Incorporate low impact development and innovative stormwater management standards.
- *Transportation Regulations*
 - Incorporate access management principles for the highway corridor to protect safety and capacity of the highway system and preserve the value of the public investment in the road system.
- *Land Division Regulations*
 - Incorporate Land Division and Subdivision standards into the Zoning Ordinance.

Source: MCSSTP, UPEA GIS. Prepared By: MAB, July 5, 2012. File: Ironwood Township (136-12184)

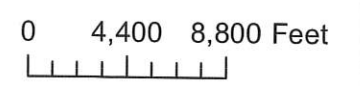
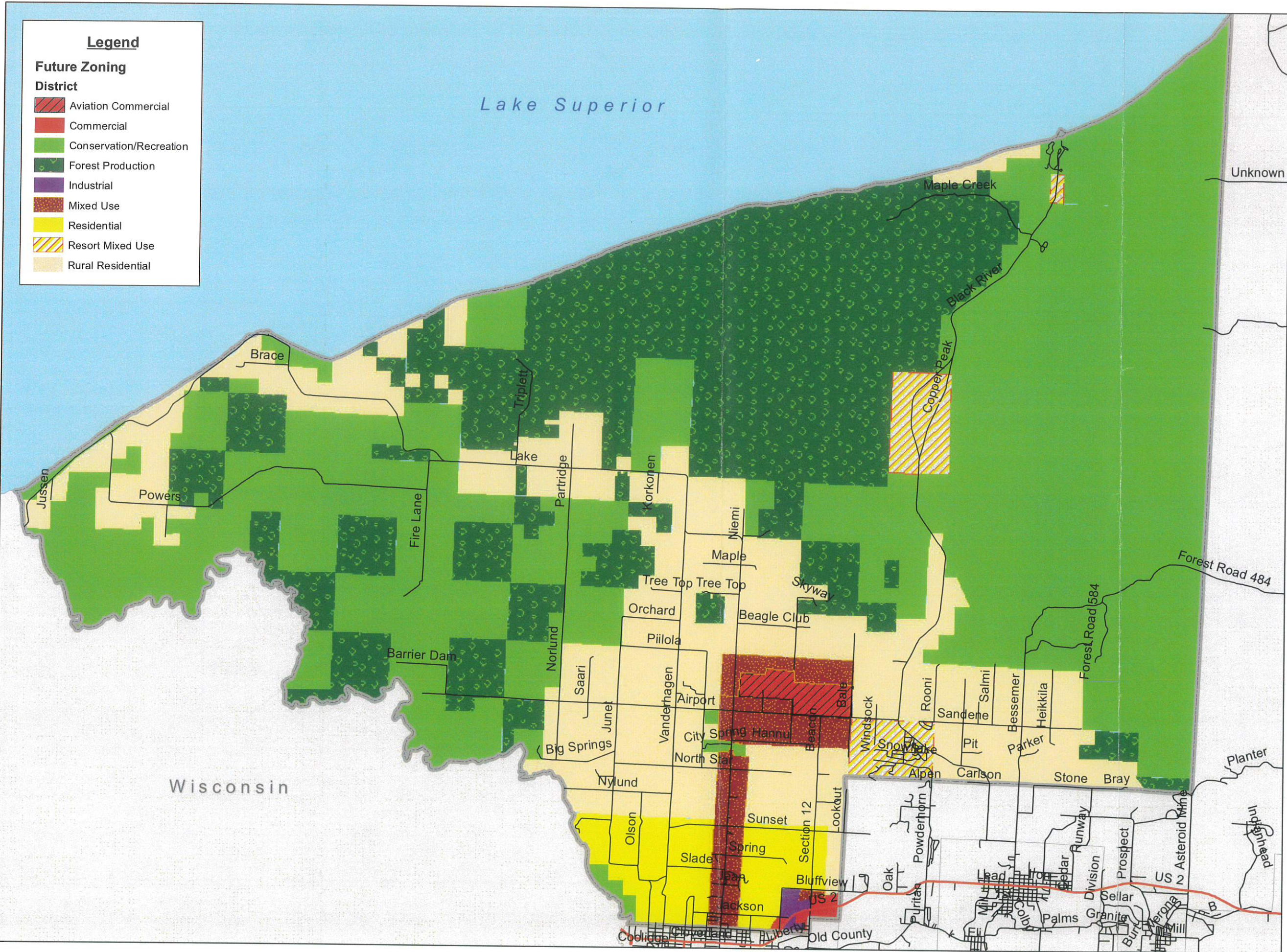
Legend

Future Zoning District

-  Aviation Commercial
-  Commercial
-  Conservation/Recreation
-  Forest Production
-  Industrial
-  Mixed Use
-  Residential
-  Resort Mixed Use
-  Rural Residential

Figure 8-2: Future Zoning

Ironwood Township, Michigan



8.5 CONCLUSION

This Plan and other Planning projects is intended to guide change in the Township in ways that produce desirable outcomes. The Master Plan should be reviewed yearly by the Planning Commission, however, State Law only requires the Plan to be reviewed every five years. If needed, the Plan should be amended after review in order to maintain a reliable planning tool that accurately reflects the current needs of the Township. Amendments may include revising the goals and objectives chapter to add new goals and delete the accomplished ones, update census data when new data becomes available and/or revising the future land use map to reflect changing goals of the Township.