

## TABLE OF CONTENTS

	Section I.	Background	1	
		A. Statutory Basis and Purpose of Plan	1	
		B. Township History	1	
	Section II.	Existing Conditions	2	
		A. Existing Land Use	2	
		B. Natural Features	2	
		1. Soil	3	
		2. Natural Gas Wells	4	
		3. Water Quality	4	
		C. Invasive Species	5	
		D. Man-made Features	6	
		E. Community Facilities	6	
		F. Population Trends	6	
		G. Economic Characteristics	7	
		H. Regional Setting	7	
	Section III.	Goals and Objectives	7	
		A. Planning and Zoning	7	
	Section IV.	Future Land Use	8	
		A. Commercial	8	
		B. Manufacturing	8	
		C. Residential	8	
		D. Forestry, Agriculture and Low Density Residential	8	
		E. Resort Residential	9	
			9	
	Section V.	Implementation	10	
		A. Act 166	11	
		B. Commercial Forest Act	11	
		C. Natural Beauty Roads	11	
		D. Lot Size and Density	12	
	Section VI.	Maps and Charts	13	

## SECTION I – BACKGROUND

### A. Statutory Basis and Purpose of Plan

This Plan is developed pursuant to the requirements of Act 184 of 1943, Act 168 of 1959 and The Michigan Enabling Act, Act 33 of 2008 as amended, being the Township Rural Zoning Act. This Act requires that a zoning ordinance be based upon a plan designed to promote the public health, safety, and general welfare of the Township residents, to encourage the use of lands in accordance with their character and adaptability, to limit the improper use of land; to conserve natural resources and energy; to meet the needs of the state's residents for food, fiber and other natural resources, places of residence, recreation, industry, trade, service, and other uses of land; to insure that uses of the land shall be situated in appropriate locations and relationships.

To avoid the overcrowding of population; to provide adequate light and air; to lessen congestion on public roads and streets; to reduce hazards to life and property; to facilitate adequate provisions for system of transportation, sewage disposal, safe and adequate water supply; education, recreation and other public requirements.

To conserve the expenditure of funds for public improvements and services to conform to the most advantageous uses of land resources and properties.

The purpose of the Plan is to be a sound basis for administration of the Township Zoning Ordinance and to provide a guide for the conservation of natural resources and property values and the general development of land and population for Kearney Township, Antrim County, Michigan.

### B. Township History

The Township of Kearney was set off from Forest Home Township at the January 1875 meeting of the Supervisors of Antrim County. The first annual election was held the first Monday in April 1875. The land was designated as "all that part of Town 30 North, Range 7 and 8 West, lying East of the center of Intermediate Lake and the thread of the Intermediate River." The boundaries remain the same today.

A post office was established on January 17, 1876 near the intersection of Eddy School Road and Derenzy Road. George Palmer was the first postmaster. The post office was discontinued after March 1883.

While no actual connection can be found to an early settler, the name Kearney probably referred to a place in Ireland. It was habit to name places after that country because this area so reminded our forefathers of the beautiful countryside in Ireland.



## SECTION II – EXISTING CONDITIONS

### A. Existing Land Use

The existing land use of the Township was surveyed by car and study of the 1998 Antrim County Land Use Atlas provided by the Antrim County Planning Department.

A report provided by the Northwest Michigan Council of Governments from a current use inventory completed using 1998 photography was also reviewed.

As can be expected, the predominate land use in the Township is forest. Sixty-seven percent of the Township is covered in vegetation. Of this, fully thirteen percent is also classified as wetland, primarily narrow lowlands along streams and at the base of hills and ridges. Agriculture uses account for approximately five percent of the land use, and is located in the central and northern portions of the Township.

Residential uses make up eleven percent of the land use although it is scattered generally throughout the township, the most concentration is in the Village of Bellaire and at the local golf and ski resorts.

The balance of the land use, made up of utilities such as the Antrim County Airport, Bellaire Wastewater Treatment Facility and commercial and industrial uses is about two percent.

A table of existing uses is as follows:

Land Cover Type	Percent Coverage
Forest	60%
Wetlands	13%
Water	3%
Agriculture	5%
Grass and Shrub	7%
Residential (including resorts)	11%
Other (including utilities and industrial)	1%

See map of existing land use accompanying this text.

### B. Kearney Township Natural Features:

The Township enjoys the unique natural feature of the Chain of Lakes, having as part of its western boundary, Lake Bellaire and Intermediate Lake.

A large valley runs east and west through the south central part of the Township, with drainage areas branching out from the valley and creating extremely broken terrain. The valley is made up of vast areas of wetlands and contains the Cedar River.

Most of the Township is forested, with the east portion containing parts of the Mackinaw State Forest. There are some Christmas tree plantations in this area also.

There is some cropland and livestock farming on the Township in the central and eastern portions.

## 1. Soils

The Township is made up of four basic soil associations as follows:

Emmet-Montcalm- This soil group consists of well drained gently sloping to very steeply sloping loamy sands and sands. These soils occur mostly on knolls, ridges and hills.

These soils offer few limitations to development where the slopes are gently except for some problems with frost heave for road and highways.

Where there are slopes involved, moderate to severe problems develop. These involve cave-in of excavations, some wetness in digging basements, and side hill seepage from septic tank tile fields.

Tawas-Ensley-Roscommon- These are very poorly drained soils consisting of mucks, loamy and sandy soil consisting of shallow depressions in level plains.

These soils are essentially unsuitable for on-site septic systems due to the humus content of the soil and high water table.

There are also frost heave problems and cave-in problems for excavations.

These soils are quite often subject to seasonal flooding.

Kalkaska-Montcalm- This soil association consists of well drained sands on level to very steep hills, ridges and knolls.

Due to the sandy content of these soils, cave-ins of excavations are a problem, but septic systems operate successfully on these soils except for the steep slope areas.

Kalkaska-East Lake-Karlin- Somewhat excessively drained level to very steep, sandy soils of plains.

## 2. Natural Gas Wells

Natural gas lies beneath most of Kearney Township trapped in what is known as Antrim Shale, which is about 2,000 feet below the surface. Several exploratory wells were drilled on the northeastern portion of the Township in the early 1990's. Due to low production, they were connected together of "unitized" forming units. Unit sizes vary from 2,000 acres to over 4,000 acres. All people owning their mineral rights share in the revenues from each unit if they sign a "Unitization Agreement". Their revenue is based on the percentage of surface acres they own in the unit. Many miles of pipe are underground in each unit.

The gas was first pumped out with jack stands, but in each unit these have been replaced by compression stations. The compression stations are more environmentally friendly. Now, almost all of Kearney Township is in one "unit" or another. Kearney Township, as a governmental entity, has no control over any gas or oil exploration and is under the complete jurisdiction of "Supervisor of Wells" provided in Act No. 61 of Public Acts of 1939.

## 3. Water Quality Assessment of Lake Bellaire, Intermediate Lake and the Cedar River

Assessing the water quality of Kearney Township's major waters requires the collaboration between several monitoring agencies. The data used in this analysis is from 2004 observations made by Three Lakes Association, the Tip of the Mitt Watershed Council, the Michigan Department of Environmental Quality, and the Friends of the Cedar River.

Cedar River: The Cedar River remains on the northwest Michigan's Class A trout stream. The water is cold, clear and richly oxygenated. High quality macro invertebrates found on the bottom of the river serves as the main food source from brook, brown and rainbow trout populations. The major concern for the Cedar River water quality is the detection of TCE (trichloroethylene) from the Mancelona plume that is traveling at approximately 350 feet per year. While TCE concentrates entering the river are well below the EPA limits for surface waters, Three Lakes Association, in cooperation with the Bellaire Public Schools, will be monitoring macro invertebrate populations above and below the point of TCE entry the spring of 2005. Three Lakes Association is also active in the efforts to remove the toxic plume.

Intermediate Lake: Generally, Intermediate Lake quality is very good. The spring of 2004 analysis demonstrated richly oxygenated water down to 23 feet and low to moderate levels of nutrients like phosphorus. This lake continues to be very productive with reports of good catches of bass, walleye and panfish. The TCE spill at the former Texas Instruments Plant does not seem to have affected fishing. The last monitoring of that spill was done by the DEQ in 1998.

Lake Bellaire: Generally, Lake Bellaire quality is very good. The spring of 2004 analysis demonstrated richly oxygenated water down to 28 feet and low levels of nutrients like phosphorus. However, summer of 2004 observations showed a dramatic oxygen decline in the deep basin (100 feet). The low oxygen levels at the bottom exclude fish like lake trout. This low oxygen condition has occurred before and will promote the release of phosphorus from the bottom sediments. This, in turn, will promote algae growth. The causes of the low oxygen levels are not well understood but will be studied when the Three Lakes and the Great Lakes Environmental Center build the nutrient-based productive model for the lake. Water clarity continues to improve in Lake Bellaire due to the increase in the zebra mussel population. People using the lake are reporting more cut hands and feet as the zebra mussels increase. There is no viable solution to the zebra mussel problem other than to scrape them off from surfaces. Walleye fishing continues to be a problem with few fish being caught in the summer of 2004. Three Lakes Association conducted a shoreline algae survey of the lake the summer of 2004 and found no significant algal sites in Kearney Townships waters. The rest of the lake had 15 algal sites indicating possible failing septic systems in Custer and Forest Home Township waters.

### C. Invasive Species

Zebra mussels are found in both Intermediate Lake and Lake Bellaire. Phragmites have also become an issue around lakes, streams and wetlands. Local organizations and homeowners have been working on eradicating the rapid growing grass around the lakes. The Emerald Ash Borer was found in 2009/2010 in the township and devastated the ash trees. Many ash trees were cut down to minimize the spread with little success.

#### D. Man-made Features

Due to the terrain, the transportation system is most complete on the western edge of the Township where M-88 runs along the eastern side of Lake Bellaire and through the Village of Bellaire and on to Central Lake. County Road 620 enters the Township from M-66 and runs through the Village of Bellaire and then west to Torch Lake.

The portion of the Village of Bellaire east of the Intermediate River lies within the Township.

#### E. Community Facilities

Bellaire is the County Seat for Antrim County and in addition to governmental offices, the Courts and the Jail, the County operates Meadow Brook, and Meadow View Apartments just south of the Village along M-88. The Animal Control Building, the Ambulance Authority and the County Transportation Authority are also located in that area. The local Fire Department is also located in the township.

There are several golf and ski resorts in the Township. Extensive seasonal and permanent housing has been developed along Lake Bellaire and Intermediate Lake. A year-round hiking trail covering several miles along the Cedar River has also been established from Craven Park to Burrel Road.

The Antrim County Airport is located in the Township just north of the Village of Bellaire with access from County Road 620.

In the spring of 2011, Kearney Township built a new Township Hall located on Aero Park Drive. The new facility houses the township offices and a large hall that is rented out for functions.

In Spring 2015, Bellaire Family Health Center relocated to their new building located on M-88. The new facility has the ability to house 6 providers, along with a full drive thru pharmacy and laboratory. They also offer Mammogram and X-ray services.

#### F. Population Trends

Both Antrim County and the Township have experienced steady growth since 1970. Between 1970 and 1980 the County showed an increase of 28.4% while the Township grew by 25%. Township growth has slowed somewhat in comparison to overall County growth. See 2010 census information in appendix at back of plan.

## F. Economic Characteristics

Public employment is the single most important factor in the Township. Residents are employed in County, Township and Village government as well as with Bellaire Schools and the Medical Care Facility.

The resort industry as well as numerous small businesses in and around the Village of Bellaire also provides jobs. Light manufacturing provided employment within the Township. Many residents are also employed in construction. Agricultural and Forestry activities also account for some employment in the Township

## G. The Regional Setting

Kearney Township is located in the central part of Antrim County. The County lies along the east shore of Grand Traverse Bay and contains several major lakes. The most notable of which are Torch Lake and an “upper and lower” Chain of Lakes which is well known throughout the Midwest for its scenic beauty. Torch Lake is noted as the third most beautiful lake in the world by National Geographic Magazine.

Both U.S. 31 and U.S. 131 cross the County in a north-south directions; U.S 31 along the Lake Michigan coast and U.S. 131 further inland. The Township lies between the two highways and has the Chain of Lakes as its western boundary. Ski and golf course complexes are located within the Township and are accessed primarily from U.S. 131 via M-88.

Therefore, the western, central and southern portions of the Township experience residential and resort development pressures, while the balance of the Township is made of rugged hills and wetland valley with low density residential living, farms and forestry uses.

# **SECTION III- GOALS AND OBJECTIVES**

## A. Planning Goals

The Kearney Township Planning Commission has selected the following goals as the basis of the Master Land Use Plan:

1. Protect the surface and ground water quality of the Township as the main ingredient of the quality of life.

2. Develop a Future Land Use Plan that will result in the conservation of public expenditures needed for public improvements, public services, recreational facilities and/or trails and Preservation of Township Public Accesses.
3. Develop a Future Land Use Plan that will provide guidance to direct development in areas most suitable to provide guidelines for good development practices.

## **SECTION IV - KEARNEY TOWNSHIP FUTURE LAND USE**

A review of the existing conditions of the Township, together with a study of the unique natural features including the soils and surface water, and in relation to the goals that the Township Planning Commission wish to achieve, leads to a future land use plan made up of the following planning districts:

- A. Commercial: Although commercial needs to the Township are limited in the future and most commercial growth will occur with the Village of Bellaire, it is recommended that an area along M-88 just south of the Village be designated for future commercial development.

The area already has some commercial activities even though the soils are not particularly suited to development. These activities are presently close to the Village wastewater treatment facility, which will eliminate onsite sewage disposal. Special care will be needed to insure that storm water run-off from commercial developments is retained on site and allowed to percolate slowly into the ground water to prevent sediments and pollution from entering Lake Bellaire.

- B. Manufacturing: An area for manufacturing development is located east of the Airport north to Eddy School Road. This district includes the existing industrial park. Care in the development of industrial sites will need to be taken for storm water run-off, sewage and handling of special wastes.

- C. Residential: The primary area designated for residential growth is north of Schuss Mountain and east of the Village. This area is close to the urban services available in Bellaire and also with reasonable distance to connect to

the wastewater treatment facility. Soil conditions are also fairly suitable for urban type development.

It is recommended that subdivision and cluster/open space type development be encouraged in this district as well as duplex, assisted living, and multiple family uses. It is expected that the full range of public services will eventually be available to this district and that these services will be provided by developers on a project basis as the need and desire for development projects take place.

A secondary residential district is recommended east of the manufacturing district along County Road 620. Again, soils will permit development here and the area is close to the Village to permit the extension of utilities into the area in the future. The proximity of the manufacturing district was also considered and this area may serve as a housing area for future employees of businesses in the industrial districts.

#### D. Forestry, Agricultural and Low Density Residential:

By far the vast majority of the Township is made up of this district. This is due to the following factors:

Much of the Township is made up of very fragile soils with steep hills and wetlands and a lot of surface water.

Water quality is very important to the quality of life of the Township and is at risk due to the fragile nature of the land and conventional development practices.

This district is designed to encourage forestry and agriculture as the primary uses, with low density residential allowed. The township does not expect to provide the full range of urban services to this area, and subdivision development should be discouraged.

Residential development will be permitted on an acreage basis, where there is sufficient space to ensure no degradation of groundwater and the need for road improvements, utility extensions and additional funds for emergency services will not be required.

#### E. Resort Residential:

This planning district is intended to provide for recreational facilities requiring large land area (such as golf courses and ski resorts), and associated residential development. This may include both short-term overnight rental accommodations and year round residential structures ranging from detached single family dwellings to attached multiple family structures. Retail and



service businesses would be allowed to the extent that they are a usual and necessary part of the recreational and residential development. They exist for, and are of a scale appropriate to, the primary purpose of serving the resort.

Much of the Township is made up of steep hills, fragile soils and seeps from the hilly terrain in to the valleys, in which many cases contain wetland areas.

Future development near these environmentally sensitive areas is best addressed on a case-by-case basis so that the development can be directed away from the fragile areas. Care needs to be taken to protect the water of the Township from insecticides, pesticides, fertilizers and septic waste pollution. Soil erosion can easily occur from both earth disturbance activities as well as storm water run-off.

The recreational and residential use areas that are expected to experience the highest growth are those having the greatest changes on elevation. These same areas will attract large numbers of people. Therefore, transportation both to the resort area from other areas of the state and township, as well as, movement of people within the resort itself, are of major concern. Both the pedestrian and vehicular traffic must be accommodated while insuring that emergency vehicles have the ability to reach and service the development. Due to elevation changes, number of people attracted and the distance of this type of development from the Village of Bellaire, the potential exists for very high costs to service this type of development. A relatively small portion of the population of the township would benefit from these infrastructure improvements. The necessary utilities and infrastructure shall be installed prior to, or in conjunction with, the proposed development with the cost to be borne by those proposing the development.

## **SECTION V – IMPLEMENTATION RECOMMENDATIONS**

The implementation of “putting to work” of a future growth plan for the Township can take many forms. The most common form is to use the Zoning Ordinance as a way to regulate and direct growth. In this way, decisions made on rezoning are guided by the Master Plan. The setting of lot sizes, density and permitted uses, all influence the direction that development will take. It is recommended that the Township use the Special Use Permit process and site plan review as a technique to guide development. The soil factor maps available from the Antrim County Soil and Water Conservation District should be used to insure adequate protection of fragile soil conditions when proposed developments are reviewed.

A subdivision control ordinance will also help achieve goals. It is recommended that an ordinance be written to include provision for erosion control that could create “green belts”. This will help retain the valuable natural character of the Township.

A wetland ordinance, following the guidelines of the State Wetlands Act, will help the Township protect water quality by recognizing these special areas and prescribing measure to insure their future.

The Township Board, in its capital improvements planning and budgeting, can influence implementation of the plan by budgeting funds to improve roads in portions of the township where growth is planned to occur.

There are also several state laws that the Township can utilize to help with implementation of the plan.

#### A. Act 166-Farmland and Open Space Preservation Act

This Act requires a minimum of forty acres in size; a farm of five to forty acres with a gross annual income of two hundred dollars per cleared and tillable acre; or a specialty farm of at least fifteen acres designated as a specialty farm by the Michigan Department of Agriculture and with a gross annual income of two thousand dollars or more.

Beginning in the 2001 tax year, the state of Michigan began offering an enhanced benefit for landowners enrolled in PA-166 agreements which enable land owners to claim a tax credit for the amount by which their property tax exceeds 3.5 percent of their household income. (The previous threshold for eligibility was 7 percent of household income).

Another benefit of enrollment is that land covered by the agreement exempt from special assessments for sanitary sewer, water, lights and non-farm drainage, unless the assessments were imposed prior to the recording of the Farmland Development Rights Agreement. The purpose of the agreement is to insure that land remains in a agriculture use for a minimum of 10 years and is not developed for any non-agriculture use.

Any questions about this Act should be addressed to the Division of Land Resource Program, Department of Natural Resources, Box 30028, Lansing, MI 78909.

#### B. Commercial Forest Act

This Act requires a minimum of forty acres of established trees to be open to hunting and fishing. The owner pays 30 cents per acre annual tax plus a 10 percent stumpage fee on any timber harvested.

### C. Natural Beauty Road

This Act allows citizens or governmental units to request the County Road Commission to designate a road or portion of road for non-development/improvement. This results in preserving the natural character of rural or forest setting.

### D. Lot Size and Density

The stated goals of this plan are to guide growth near the Village where services are readily available and to preserve the rural and natural character of the Township so that water quality can be protected. Therefore, the lot size and overall density allowed through the zoning ordinance becomes a critical factor in plan implementation.

It is recommended that the current zoning map may be reviewed and in the forestry, agriculture and low density residential areas, as shown in the future land use plan, have a two acre minimum lot size.

## SECTION VI – LIST OF CHARTS AND MAPS

<b>A. Charts:</b>	<b>Page</b>
1. List of Existing Land Uses by Percentage.....	2
2. Kearney T ownship Soils.....	3
3. Popula tion Trends.....	6
4. Economic Characteristics- Income Data.....	7
 <b>B. Maps:</b>	
1. Zoni ng Map.....	14
2. Recreational Map.....	15
3. Environmentally Sensitive Areas Map.....	16
4. Soil Map .....	17
5. Future Land Use Map .....	18
6. Land Cover Map.....	19



# Zoning Districts Map

Kearney Township - Antrim County

## Legend

- Section Lines
- Transportation**
  - State Trunkline
  - County Roads
  - City Roads
  - Not Act 51 Certified
  - Township Boundaries
  - Streams
  - Lakes & Ponds
  - Parcel Lines

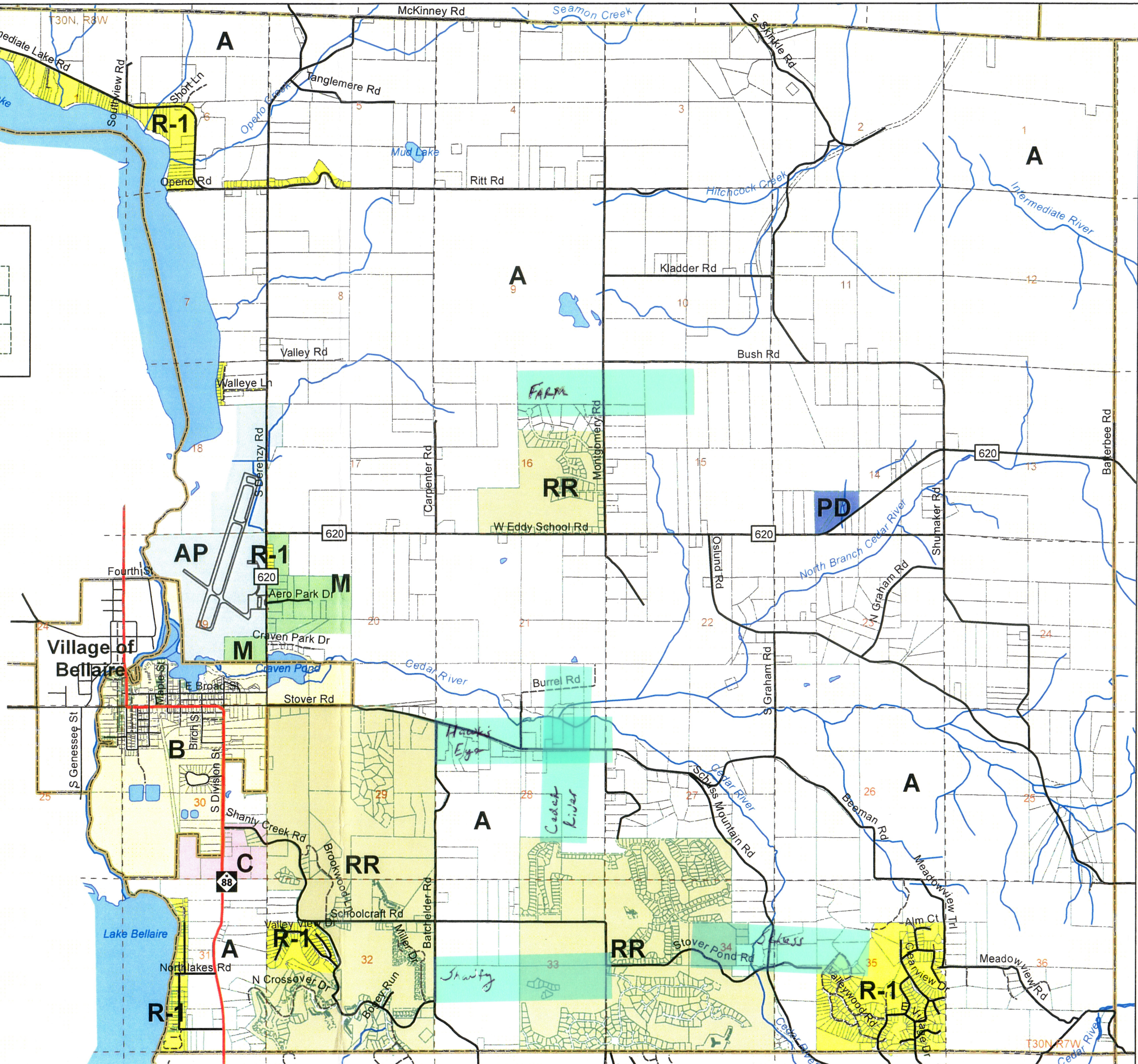
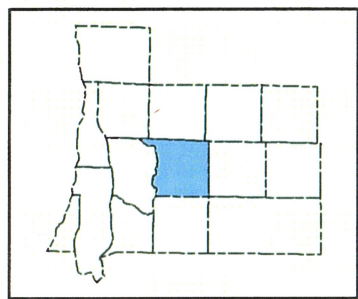
## Zoning

- A** Agriculture
- B** Bellaire
- C** Commercial
- M** Manufacturing
- PD** Planned Development
- R-1** R-1 Residential
- R-2** R-2 Residential
- RR** Resort Residential
- AP** Airport

0 0.25 0.5 1 1.5 Miles

Map Produced by:  
**Networks Northwest**  
Talent / Business / Community

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# Recreational Map

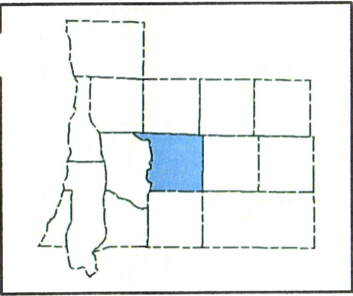
## Kearney Township - Antrim County

### Legend


- Section Lines
- Township Boundaries
- Parcel Lines
- State Trunkline
- County Roads
- City Roads
- Not Act 51 Certified
- Streams
- Lakes & Ponds

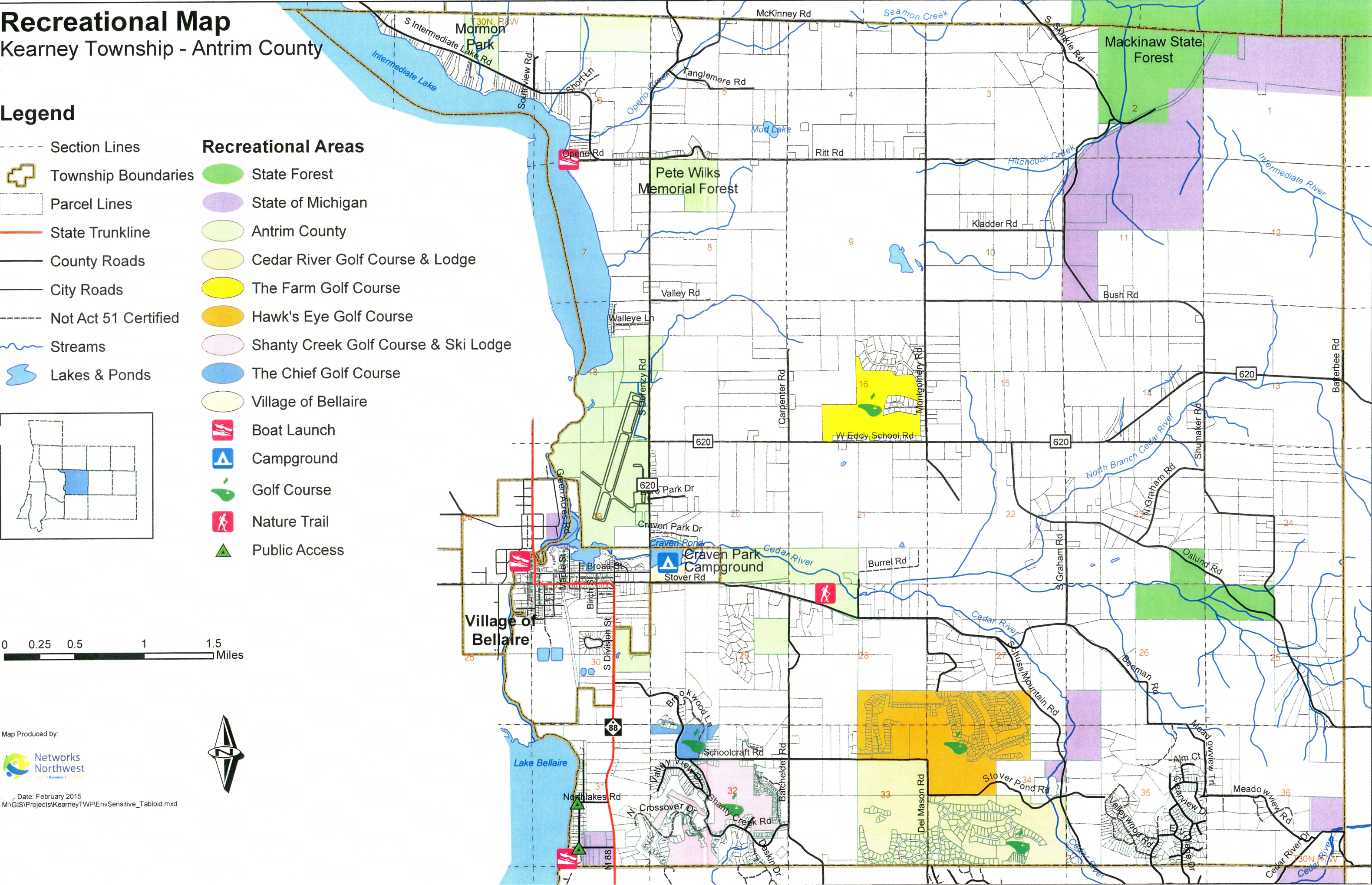
### Recreational Areas

- State Forest
- State of Michigan
- Antrim County
- Cedar River Golf Course & Lodge
- The Farm Golf Course
- Hawk's Eye Golf Course
- Shanty Creek Golf Course & Ski Lodge
- The Chief Golf Course
- Village of Bellaire
- Boat Launch
- Campground
- Golf Course
- Nature Trail
- Public Access



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# Environmentally Sensitive Areas

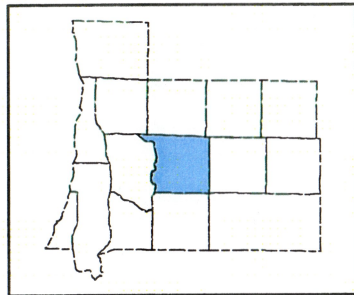
Kearney Township - Antrim County

## Legend

- Section Lines
-  Township Boundaries
-  Parcel Lines
-  Steep Slopes 12% - 40%

## Transportation

-  State Trunkline
-  County Roads
-  City Roads
-  Not Act 51 Certified
-  Streams
-  Lakes & Ponds

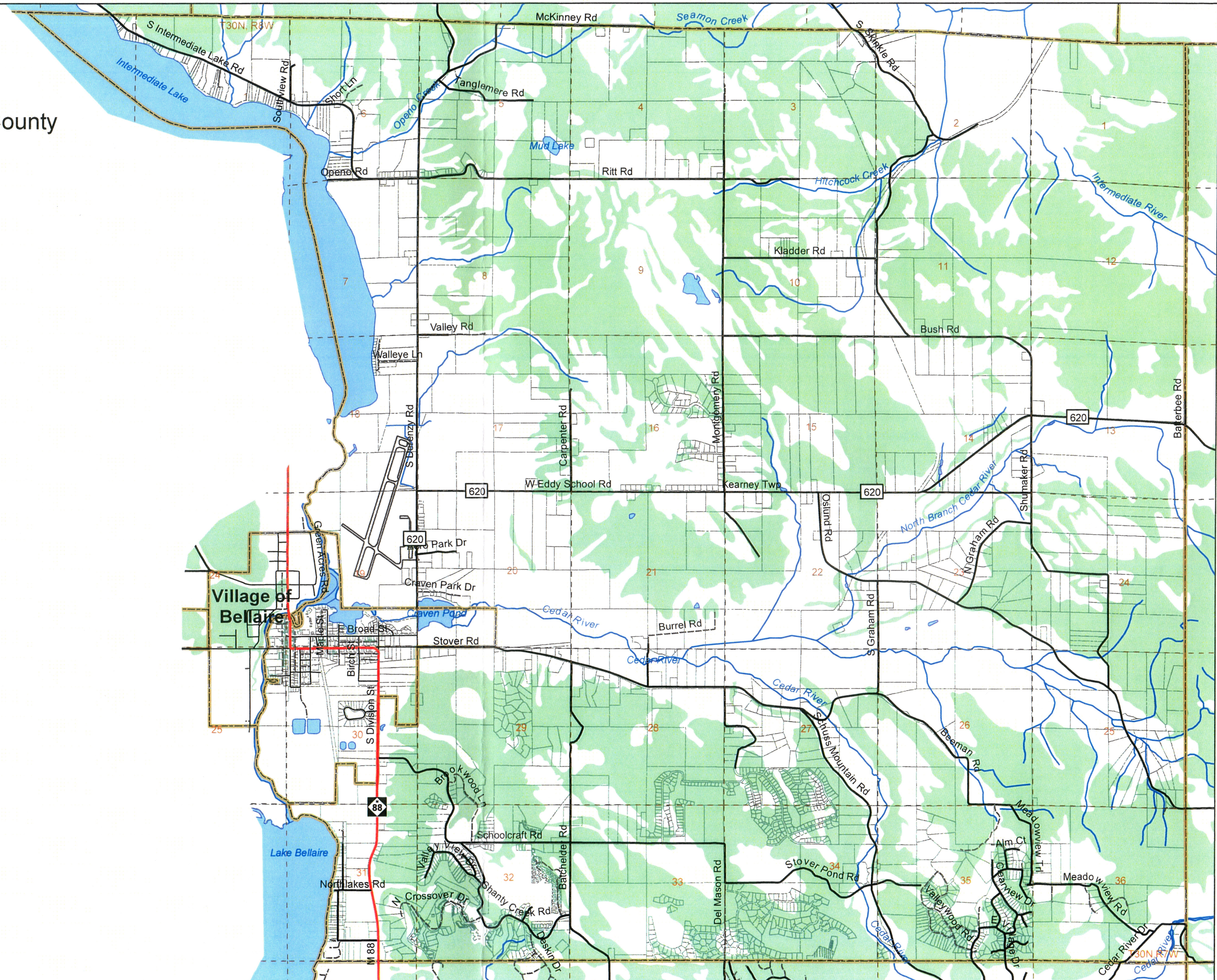


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# Soils Map

Kearney Township - Antrim County

## Legend

----- Section Lines

### Transportation

~~~~~ State Trunkline

~~~~~ County Roads

~~~~~ City Roads

~~~~~ Not Act 51 Certified

⬢ Township Boundaries

~~~~~ Streams

~~~~~ Lakes & Ponds

~~~~~ Parcel Lines

### Soil Type

|  |     |  |     |
|--|-----|--|-----|
|  | AuA |  | KeB |
|  | CbA |  | KeD |
|  | CcB |  | KmB |
|  | CcD |  | KmD |
|  | CdA |  | KsA |
|  | DeC |  | Ro  |
|  | EmB |  | Ta  |
|  | EmD |  | Te  |
|  | IoA |  | W   |

KaB

KeB

KeD

KmB

KmD

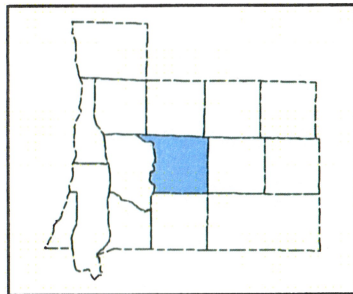
KsA

Ro

Ta

Te

W



Sources:  
The U.S. Soil Conservation Service Soil Survey of Antrim County which identifies hydric soils and soils with hydric inclusions.

DISCLAIMER: This map has not been field checked and should only be used for general planning purposes. This map should be used to supplement a field inventory by a qualified wetland expert. This map is not a complete inventory of all the wetlands in this area. Regulated wetland areas may exist that are not included on this map.

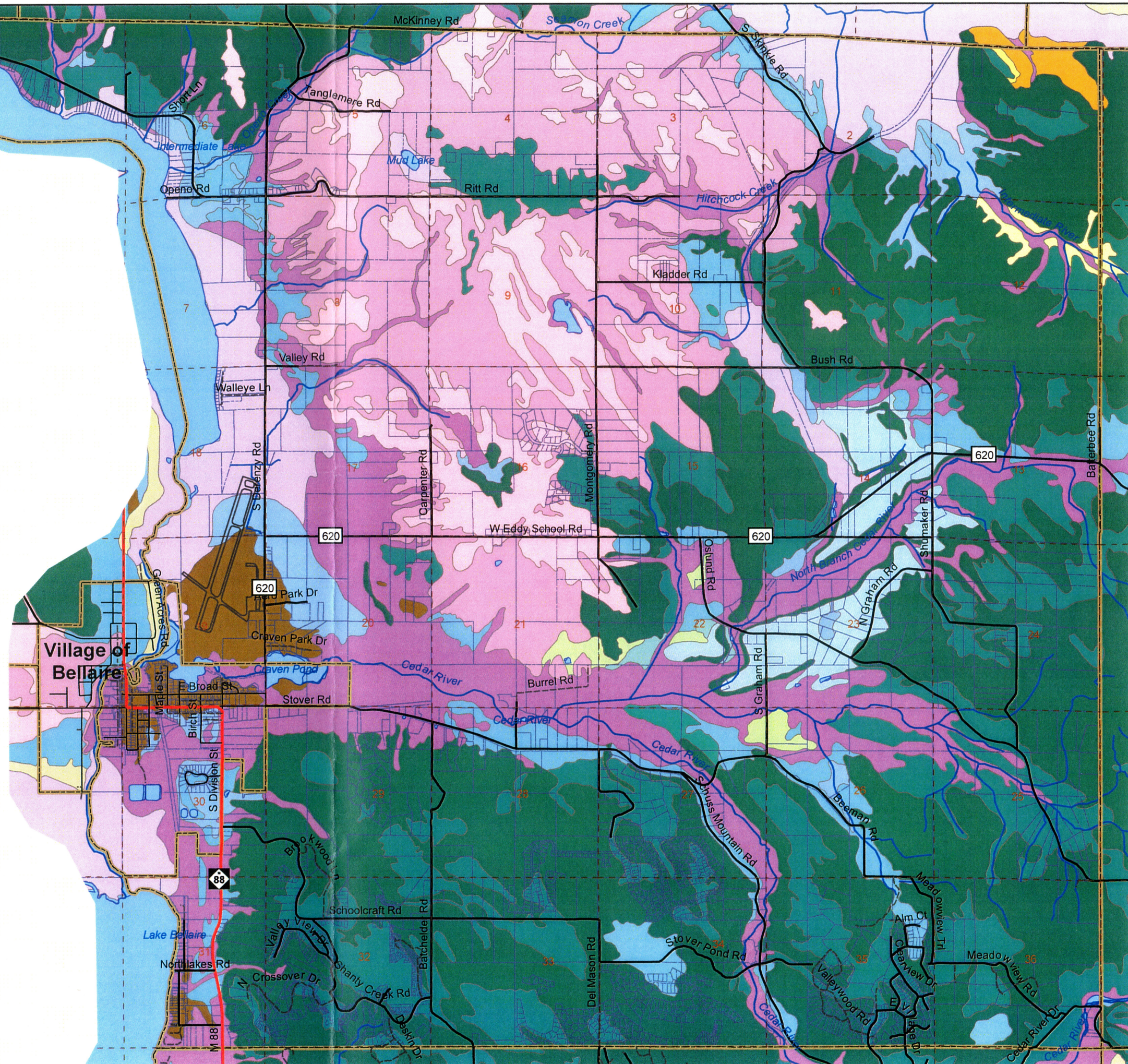
Soil data Sources: Natural Resource Conservation Service & Michigan Department of Natural Resources 1996

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# Future Land Use Map

Kearney Township - Antrim County

## Legend

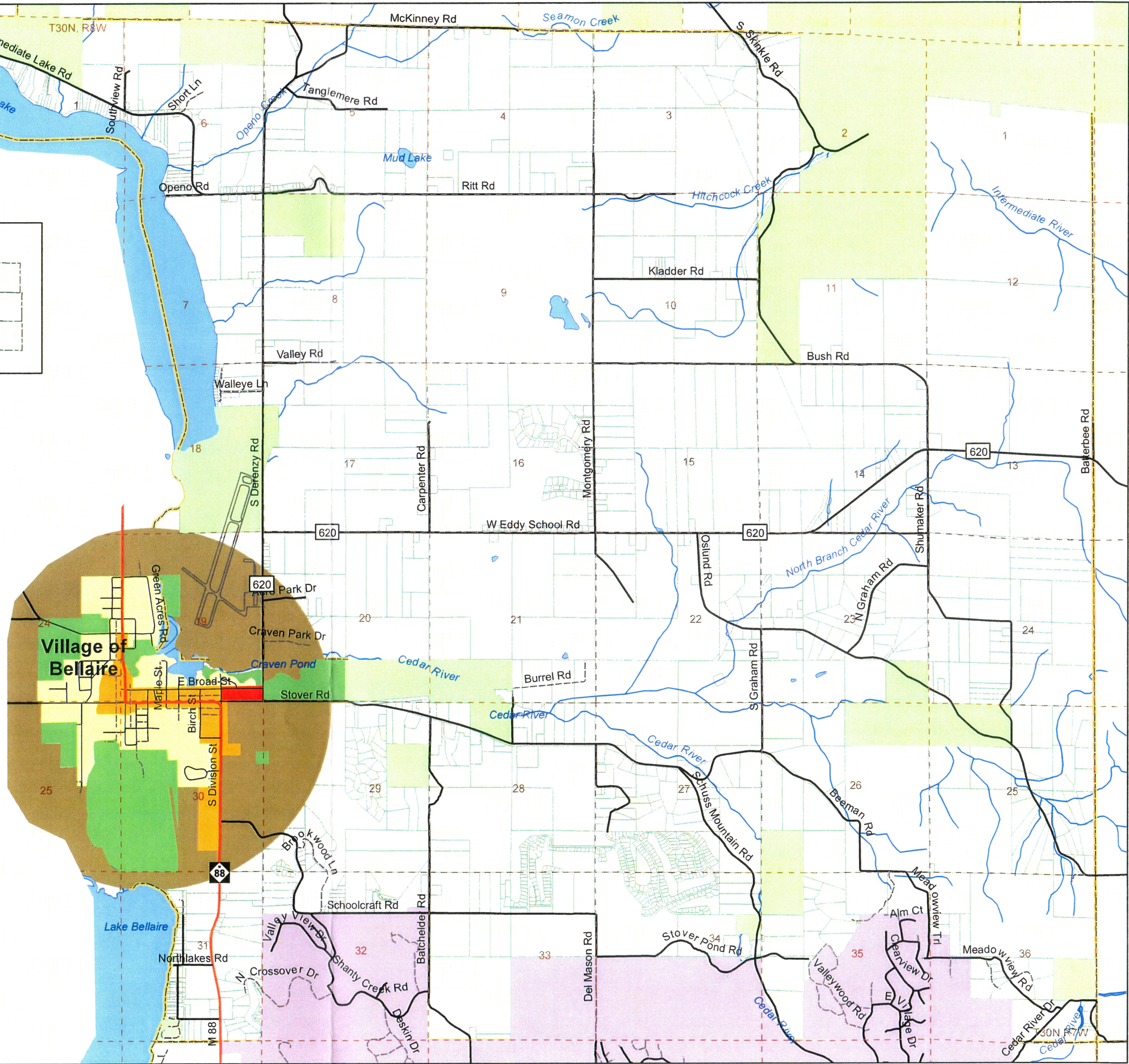
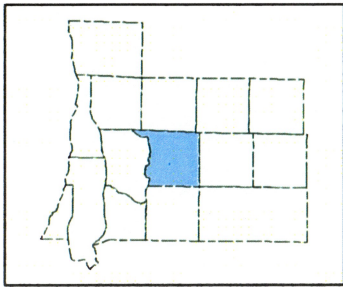
- Section Lines
- Transportation**
  - State Trunkline
  - County Roads
  - City Roads
  - Not Act 51 Certified
  - Township Boundaries
  - Streams
  - Lakes & Ponds
- Commercial
- Industrial
- Residential
- Resort Residential
- Mixed Use
- Natural Area
- Public Land
- Agricultural, Forestry, Low Density Residential

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# Land Use & Zoning Map

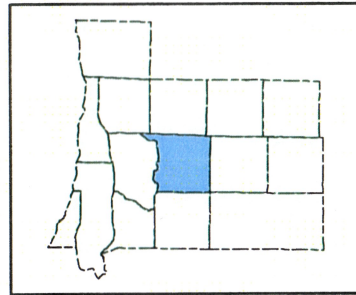
Kearney Township - Antrim County

## Legend

- GAS well
- OIL well
- Section Lines
- Township Boundaries
- Parcel Lines
- Streams
- Lakes & Ponds
- Transportation**
  - State Trunkline
  - County Roads
  - City Roads
  - Not Act 51 Certified

## Land Use and Zoning

- Agricultural
- Commercial
- Forest
- Industrial
- Residential
- Resort Residential
- Shrub/Open Space
- Transportation/Utility
- Water
- Wetland



Sources:  
Land Cover file - Michigan Department of Natural Resources &  
Michigan Resource Information System (MIRIS) 1978  
Oil & Gas Well Sites - MDEQ Geological Survey Division;  
MDNR Land and Mineral Services Division,  
Resource Mapping and Aerial Photography Section 2001

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Miles

Map Produced by:  
 Networks Northwest  
Talent / Business / Community

Map Date: February 2015  
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